

# WebCenter 22.11

## Complete Documentation

03 - 2023

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## 2. Installation Guide

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## 2.2. Overview of a WebCenter Installation

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The WebCenter installation procedure involves a number of different steps that need to be performed in a specific order.

The table below shows a list of the steps required to install WebCenter either for the first time or as an upgrade:

Step	Description
1	Check the Requirements and perform pre-installation work: <ul style="list-style-type: none"> <li>• <a href="#">Hardware and Software Requirements</a> on page 16</li> <li>• <a href="#">Pre-Installation Steps</a> on page 26</li> </ul>
2	<a href="#">Installing WebCenter</a> on page 29: <ol style="list-style-type: none"> <li>1. <a href="#">Install SQL Server 2017/2019 Express Edition on the Database Server</a> on page 30</li> <li>2. <a href="#">Install ArtiosCAD Enterprise on the Application Server</a> on page 31</li> </ol>

Step	Description
	<ol style="list-style-type: none"> <li>3. <a href="#">Install the WebCenter Application Server</a> on page 33</li> <li>4. <a href="#">Install the WebCenter Web Server</a> on page 40</li> <li>5. <a href="#">Start the WebCenter Services</a> on page 41</li> <li>6. <a href="#">Install the On-Board Graphics Engine (OBGE) on the Application Server</a> on page 42</li> </ol>
3	<a href="#">Testing WebCenter</a> on page 44
4	<p><a href="#">Configuring WebCenter</a> on page 45:</p> <ol style="list-style-type: none"> <li>1. <a href="#">Configure the OBGE</a> on page 45</li> <li>2. <a href="#">Configuring the E-Mail Notifications</a> on page 46</li> <li>3. <a href="#">Secure your WebCenter Site with SSL</a> on page 50</li> <li>4. <a href="#">Install Certificates for LDAPS on the Application Server</a> on page 63</li> <li>5. <a href="#">Integrate WebCenter with a Workflow Production Server</a> on page 65</li> <li>6. <a href="#">Expose WebCenter to the Internet</a> on page 69</li> </ol>

## 2.3. Hardware and Software Requirements



**Attention:** For the latest hardware and software requirements, please check [the Esko website](#).

It also has a **FileStore** and an **On-Board Graphics Engine (OBGE)**, which is used to generate view data.

### New IT Requirements From WebCenter 22.03 Onwards

From 22.03 onwards, WebCenter only supports Windows Server 2016 or later for fresh installations. For the latest hardware and software requirements, please check [the Esko website](#).

### Entry Level (Two Server Systems Required)

WebCenter Entry Level requirements are based on an activity with 10 concurrent users active at any time and less than 100 users in the system. Customers with higher performance needs should refer to the Advanced Level requirements.

In the Entry Level setup, the installation of the **Application Server** and **Database Server** is combined onto a single machine. The **OBGE** and the **FileStore** are on the Application Server.

For reasons of security the **Web Server** is always on its own dedicated computer and placed in a demilitarized zone (DMZ). We recommend the use of hardware firewalls for creating the DMZ.

### Advanced Level (Three or More Server Systems Required)

When the WebCenter Entry Level cannot meet the load requirements of the system, it is possible to scale the system.



For reasons of security the **Web Server** will always be a separate computer in a DMZ.

Each of the other WebCenter components (**Application Server**, **Database Server**, **FileStore** and **OBGE**) can be offloaded onto separate machines in different combinations.

For Advanced Level installations, it is recommended to choose the **Advanced** Installer option to allow more custom configuration, and to choose **Extra Large** for the Deployment Size.

**Requirements**

Category	Entry Level (Standard - < 100 users)	Advanced Level (Extra Large - 100+ users)
Operating System	Microsoft Windows Server 2016 or better	Microsoft Windows Server 2016 or better
Processor - Application Server with On-Board Graphics Engine	x86-64 compatible processor (Intel or AMD), minimum 8 cores	x86-64 compatible processor (Intel or AMD), minimum 12 cores, 6 + 6 per 100 users
Processor - All other WebCenter Servers	x86-64 compatible processor (Intel or AMD), minimum 4 cores	x86-64 compatible processor (Intel or AMD), minimum 6 cores, 2 + 4 per 100 users, 2 + 6 per 100 users for separate DB server
RAM Memory (Application Server with DB and OBGE)	16 GB or more	36 GB or more
RAM Memory (Application Server with OBGE)	16 GB or more	28 GB or more
RAM Memory (Application Server)	12 GB or more	18 GB or more
RAM Memory (Separate Database Server)	12 GB or more	minimum 12 GB or the size of the DB (whichever is larger), add 8 GB per 100 users
RAM Memory (Web Server)	6 GB or more	12 GB or more
Available hard disk space - Application Server	20 GB or more	60 GB or more
Available hard disk space - Web Server	20 GB or more	60 GB or more
Available hard disk space - Database Server	40 GB or more	80 GB or more
Available hard disk space - File Store	100 GB, should be expandable as data storage grows with usage.  For WebCenter to perform according to expectations, the FileStore needs to be on Windows file servers.  Recommended to use Windows Server 2016 or later as file	

Category	Entry Level (Standard - < 100 users)	Advanced Level (Extra Large - 100+ users)
	server (but ReFS data volumes are not supported yet).	
Display	1024 x 768 pixels, 16-bit color minimum	1024 x 768 pixels, 16-bit color minimum
Media drives - Application Server	DVD-ROM or connection to networked DVD-ROM drive	DVD-ROM or connection to networked DVD-ROM drive
Media drives - Web Server	DVD-ROM or connection to networked DVD-ROM drive	DVD-ROM or connection to networked DVD-ROM drive
Network (all servers)	10/100/1000 Base-T Ethernet, TCP/IP v4 protocol	10/100/1000 Base-T Ethernet, TCP/IP v4 protocol
Database software	<ul style="list-style-type: none"> <li>Microsoft SQL Server 2012/2014/2016/ 2017/2019 (Express Edition, Workgroup Edition, Standard Edition, Enterprise Edition)</li> <li>Oracle 19c/21c Enterprise Edition</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <b>Note:</b> Oracle 12c and older are no longer supported.         </div>	<ul style="list-style-type: none"> <li>Microsoft SQL Server 2012/2014/2016 /2017/2019 (Workgroup Edition, Standard Edition, Enterprise Edition)</li> <li>Oracle 19c/21c Enterprise Edition</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <b>Note:</b> Oracle 12c and older are no longer supported.         </div>

**Notes**

- WebCenter 22.03 or later version only supports TLS v1.2 or higher out of the box. When upgrading or installing WebCenter 22.03 or later version, this can result in WebCenter refusing to connect to the Database Server. Typically this issue can be solved by installing the relevant service packs for the SQL Server installation (see [this page](#) for more info).

Please check the following [Knowledge Base](#) article for more information: KB358434440: WebCenter - Cannot connect to SQL Server 2014 or SQL Server 2012.

- The Database Server needs 10 GB of free space on the partition containing the database files to allow for database expansion.
- If you install the Global Vision extension on the OBGE, the OBGE needs to be separated from the WebCenter Application Server.

If you install the additional Automation Engine Processor module license for WebCenter, the OBGE needs to be separated from the WebCenter Application Server.

- The Application Server is the default location for uploaded files (also known as the FileStore). Ensure it has at least 50 GB of available hard drive space, and that **the disk space is expandable**. Alternatively, find a network location with expandable disk space to specify as the file storage location when loading the Application Server.
- The Web, Application and Database Servers must have the same OS language, regional setting (such as English (United States)), and time zone setting.



- If you are using a Microsoft Hyper-V hypervisor virtual machine, do not install both the WebCenter Web Server and the Esko Licensing software on this virtual machine.

## 2.4. WebCenter Installation Tips

---

### Licenses

- **WebCenter Licenses**

To install WebCenter 22.11, request for the WebCenter 22 licenses.

The old WebCenter 21.x, 20,18.x, 16.x, 14.x or 12.x licenses will not work anymore.

- WebCenter supports two types of licensing models. You can have counted licenses in the Named User Model and Concurrent License Model where you can have licenses that are taken up during a log-in sessions.
  - **Named User Licenses:** A named user license is an exclusive license of rights assigned to a single software user. This License model lets you pay for the number of users you want to create in WebCenter. This means that the purchased number of licenses (per type of users) limit the number of users that can be created. Read more in: [Licensing and Users](#) and in this [FAQ](#).
  - **Concurrent Licenses:**

In this model, you can create as many users as you want. The number of users who may use the system at the same time is determined by your **Concurrent Licenses**. The licensing model distinguishes between three types of users: guaranteed users, concurrent users, and editor users.



**Note:** Since WebCenter 14.0.2, large installations from 50 concurrent users require a WebCenter Advanced License. A special 'advanced' variant of the concurrent user licenses is also needed in this case.

### Network Licensing Tool

For WebCenter 22.11, you need to install ArtiosCAD Enterprise 22.07, this installation includes the required Network License Manager.

To know more about Network Licenses, check this [Knowledge Base article](#).

### Server Configuration

#### Port Configurations

Below you can find the ports which need to be open/available for proper functioning of WebCenter:

- Port 80 (HTTP) from the internet to the WebCenter Web Server (DMZ).
- Port 443 (HTTPS) from the internet to the WebCenter Web Server (DMZ).
- Port 80 (HTTP) from the LAN to the WebCenter Web Server (DMZ).
- Port 443 (HTTPS) from the LAN to the WebCenter Web Server (DMZ).
- Port 4444 from the WebCenter Web Server (DMZ) to the WebCenter Application Server (LAN).
- Port 5445 from the WebCenter Application Server to the Automation Engine server (LAN) for approval feedback
- Port 25 (SMTP) from the WebCenter Application Server (LAN) to the Mail Server.



**Note:**

- The following ports are internal ports for the Application Server and need not be configured on the firewalls. However, if any of these ports are taken by another application, the Application Server will not start. Ports: 8083, 8086, 1161, 1162, 1090.
- The following ports are internal ports for the WebServer and do not need to be configured on the firewalls. However, if any of these ports are taken by another application, the WebServer will not start. Ports: 8081, 8009.



**Note:** It is recommended to install the external viewer during the installation process.

- **Database**

The database shipped as default with WebCenter 22.11 is MSSQL 2017 Express.

- **OBGE**

In case the OBGE 22.11 is installed on the Web Server (not recommended), make sure to stop the EG Web Server service before starting Tomcat.



**Note:** Since 16.1, Automation Engine no longer uses Hot Folders explicitly, but you can now configure the FileStore JDF Hot Folder by creating an Access Point which is described in [Create a JDF Hot Folder \(Access Point\) for WebCenter](#).

- **IIS**

If you move to WebCenter 22.11 from WebCenter 12.x, leaving the installation of IIS intact, a change to IIS may be needed. In IIS, go to Application Pools and open the Advanced Settings for DefaultAppPool. Make sure that 'Enable 32-Bit Applications' is set to 'False'. After changing the setting, click 'Recycle'.

- **Simple or Advanced Installation**

Since WebCenter 14, it is possible to choose between a **Simple** or **Advanced** installation. If the Advanced installation mode is selected, the memory size allocated for the JBoss service on the Application Server and the TomCat service on the Web Server need to be specified. Choosing the Extra Large option is recommended for servers that are expected to experience a heavy load and high concurrent user access.

- **Internal or External Viewer**

In case of an Advanced installation, the Viewer service can be set to Internal or External. Selecting External will make the Viewer service run as a separate process. Note that choosing External requires extra ports to be opened between the Application and Web Server: 14444. And the following ports need to be available for the application server: 1091, 3528 and 4446.

- **Database user**

In case of an Advanced installation, it is possible to set a custom password for the WebCenter database user.

- **Boards**

Previously, in older versions of ArtiosCAD Enterprise, the Boards needed to be installed by running a .bat file after the WebCenter installation. Since ArtiosCAD Enterprise 14.0, you can install the Boards automatically during the ArtiosCAD Enterprise installation, this is highly recommended.

## 2.5. Installation Checklist

---

The Installation Checklist can be used as a tool alongside the rest of the Installation Guide to ensure you completed all the necessary steps during the installation. There are two versions, the first one can be used for a fresh installation, the second one can be used in case of an upgrade.

## 2.5.1. Installation Checklist for Fresh Installation

This checklist can be used whilst performing a fresh installation of WebCenter (meaning WebCenter was not installed on the same machine(s) before).

Please complete the Installation Checklist in the same order as listed here.



**Note:** Do not run this installation from a network share.

### On the Application Server...

- Install ArtiosCAD Enterprise located on the WebCenter DVD.
- Install **License Server Components** from the ArtiosCAD Enterprise Installer.
- Activate Network Licenses via the **Network License Manager**:
  - WebCenter (Standard or Advanced)
  - CAD Engine
  - OBGE
  - Optional licenses
- If you are going to use MS SQL Server (no prerequisites for Oracle):
  - Install **MS .NET framework 3.5** (run the script from the WebCenter DVD to install it).
  - Install **MS .NET framework 4.5** (run the script from the WebCenter DVD to install it).



**Note:** For servers with Windows Server 2012 or with access to the Internet, this will happen automatically.

- Install the **SQL Server 2012 SP1 Express Edition** Database engine for WebCenter or **SQL Server 2017 Express Edition** or **SQL Server 2019 Express Edition**.
- Always install **SQL Management Studio** on the Application Server.
- Always install **SQL Command Tool** on the Application Server.
- Create the local **BGSYSTEM** Windows user (run the script from the WebCenter DVD to create it) and enter a password.
- Create the **FileStore** folder and share it as a network folder with all rights enabled for the **BGSYSTEM** user.
- Install the **Application Server** component of WebCenter; build the Database schema and **REBOOT**.

- Install the **OBGE** from the Automation Engine DVD by selecting the option: **Install Automation Engine 22.11 as On Board Graphics Engine (OBGE) for WebCenter**.
- Configure the **Access Point** (formerly known as Hot Folder) in the Automation Engine Pilot to generate view files for graphic files.

**On the Web Server...**

- Install and configure **IIS 10** (Windows Server 2016) on the Web Server.  
It is recommended to auto install IIS using the provided PowerShell Script from the installation disk, to configure IIS on Windows Server 2012 or later.
- Make sure that **Enable 32-bit programs** in IIS is set to **False**.
- Increase the upload limit in the request filtering.
- Install the **Web Server** component of WebCenter and **REBOOT**.

**On the Application Server...**

- Since WebCenter 12.1, services are started automatically. Verify that the following services are started:
  - JBoss**
  - CAD-X**
  - Application Monitor**

**On the Web Server...**

- Verify that the following services have been started:
  - TomCat**
  - Application Monitor**
- Connect to WebCenter in your browser: `http://[WebServer]/WebCenter_Inst`.
  - Username: admin. Password: [blank].
  - Change password.
- Install the **ArtiosCAD Defaults** in **English** and **Import the Boards** (directly from the ArtiosCAD Defaults Installer).
- Run the CADX User Defaults installer, to install optimal **Defaults for the WebCenter Cad-X service**

- Run the Studio Defaults installer, to install **Studio Print Finishing Profiles** for working with advanced material effects in 3D visualization

## 2.5.2. Installation Checklist for Upgrade

This checklist can be used while performing an upgrade installation of WebCenter 22.11 from an older version.

Please complete the Installation Checklist in the same order as listed here.



**Note:** Do not run this installation from a network share.

### On the Web and Application Server...

- Stop all WebCenter services.

### On the Application Server...

- Backup the whole `.. \WebCenter \ApplicationServer` folder (make a **copy**, do not move it) and backup the following:

- FileStore**

- Database**

- Email configuration** (if you upgrade from a WebCenter < 12)

### On the Web Server...

- Backup the whole `.. \WebCenter \WebServer` folder (make a **copy**, do not move it).
- Uninstall** the old version of WebCenter on both Application and Web Server and **REBOOT** both servers after uninstall. Delete all the sub folders present in `.. \WebCenter \ApplicationServer`.
- Remove all** WebCenter **instances** in **IIS** on the Web Server.

### On the Application Server...

- Upgrade to ArtiosCAD Enterprise 22.07 located on the WebCenter DVD.
- Upgrade the **Network License Manager** via the **Install License Server Components** from the ArtiosCAD installer.
- Upgrade WebCenter **Licenses and dependants** (CAD Engine and OBGE) to WebCenter 22.
- If you are using MS SQL Server, make sure that **SQL Management Studio** is always installed on the Application Server.
- Install the **Application Server** component of WebCenter using the existing FileStore and Database. **DO NOT REBOOT YET**
- Re-apply email customization on the Application Server.

- Build the **Database schema** if this was not done during the installation.
- REBOOT**
- Update to Automation Engine OBGE 22.11 and configure the **Access Point** (formerly known as Hot Folder) in the Pilot to generate view files for graphic files.

**On the Web Server...**

- Install the **Web Server** component of WebCenter.
- Make sure that **Enable 32-bit programs in IIS** is set to **False**.
- Re-deploy WebCenter Instance(s) and re-apply customizations.
- REBOOT**

**On the Application Server...**

- Since WebCenter12.1, services are started automatically. Verify that the following services are started:
  - JBoss**
  - CAD-X**
  - Application Monitor**

**On the Web Server...**

- Verify that the following services have been started:
  - TomCat**
  - Application Monitor**
- Connect to WebCenter in your browser: `http://[WebServer]/WebCenter_Inst.`
  - Username: admin. Password: [old admin password].
- Install or merge the **ArtiosCAD Defaults in English** and **Import the Boards** (directly from the ArtiosCAD Defaults Installer).
- Install the **ArtiosCAD Defaults in English** and **Import the Boards** (directly from the ArtiosCAD Defaults Installer).
- Run the CADX User Defaults installer, to install optimal **Defaults for the WebCenter Cad-X service**
- Run the Studio Defaults installer, to install **Studio Print Finishing Profiles** for working with advanced material effects in 3D visualization.

## 2.6. CHILI-WebCenter Connection

---

### 2.6.1. Share between CHILI and WebCenter

A **CHILI share** is used to temporarily hold the files while registering them to the **CHILI server**. WebCenter will create a sub folders corresponding to the CHILI environments in this CHILI share root folder.

**Note:**

The share must have:

- read and write permissions for WebCenter 'BGSYSTEM' user.
- read permissions for CHILI server.

### 2.6.2. Requirements for Reverse Proxy for CHILI Server

IIS ports accessing CHILI over the WebCenter web server should be:

- 80 for IIS `http`
- 443 for IIS `https`

The `https` ports must have a security certificate attached to it in order to be able to work with Web Server.



**Note:** The best practice is to install a properly signed certificate, matching the CHILI server hostname (NOT the tricked hostname) on the CHILI server. In this scenario, the validation of the SSL certificate will be smooth when the WebCenter Application Server makes a connection to it.

Alternatively, you may use a self-signed certificate. However, these are not supported for the WebCenter WebServer. You may get SSL validation errors when the WebCenter Application Server tries to connect to the CHILI server due to this.

As a work-around, use the WebCenter LDAP CertInstall tool:

- Go to the `<Installation Directory>\ApplicationServer\LDAP`.
- Run the following command:

```
CertInstall.bat <chiliserver>:443
```

- Select the right certificate to install by entering a digit.
- Restart the JBoss.

This will solve the SSL validation problems.

## 2.7. Pre-Installation Steps

Execute the following steps to make sure you have all the required information and materials for the installation.

1. Log on to all servers as a **local administrator** user.



**Attention:**

Logging on as DOMAIN ADMIN does not ensure you are a member of the local Administrators group.

Verify that the account you are using to log on to each machine belongs to the local Administrators group before you continue!

2. Make sure you use **compatible** software versions:
  - a) Gather the installation media on CD or DVD for ArtiosCAD Enterprise, WebCenter, and Automation Engine (OBGE).
  - b) Only very specific versions of ArtiosCAD Enterprise, WebCenter, and Automation Engine (OBGE) work with each other.

You CANNOT assume that a new version or build of one product will be compatible with older versions of the other products.

Software	Version	Build
ArtiosCAD Enterprise	22.07	.....
WebCenter	22.11	.....
Automation Engine	22.11	.....

3. Check the **licenses** for the Esko installers:
  - a) Gather Graphics and CAD licenses.
  - b) If this is an upgrade, you will need to ask for updated license files.
  - c) Check the license files against your software order.

Verify that the licenses have the correct number of users, the expiration date if applicable, and the correct ArtiosCAD Enterprise, WebCenter, and Automation Engine (OBGE) version information.

4. Gather the required **mail server** information:



**Note:**

The mail server must be on the same network as the WebCenter Application Server.

Also, ensure this mail server has a send-only e-mail account already created for specific use with WebCenter notifications (this usually requires creation of an account such as webcenter@mycompany.com).



Mail Server Information	Value
Mail Server Name	.....
Mail Server IP Address	.....
SMTP Port	.....
WebCenter Sender Address	.....
SMTP Authentication User Name	.....
SMTP Authentication Password	.....

5. Gather the required **database information** from the database administrator:

Database	Item	Value
SQL Server	server name	.....
	"sa" password	.....
	database instance name	.....
	database port (default is 1433)	.....
Oracle Server	server name	.....
	'sys' password	.....
	TNS name	.....
	System ID (SID)	.....
	database port (default is 1527)	.....

6. Ask the database administrator whether a custom password for the 'WebCenter' database user will be required and if so, retrieve the expected target password for this database user.

7. Perform a Web Server health check:

a) We highly recommend not to begin the install with the Web Server inside the DMZ. It is best to **configure on a local LAN** first.

Get all applications installed, configured, and fully functional before moving the Web Server inside the DMZ. Otherwise any required troubleshooting will be difficult and will take longer than needed.

b) Verify that **Internet Information Services (IIS)** is installed and its services are started: IISADMIN and W3SVC (World Wide Web Publishing).

c) Make sure the **Server** service is running.

8. Test the mail server connection:



**Note:**

Ensure that you can use telnet commands and that its port is not blocked in any way. Make sure you test this before starting the installation. IT Administrators often block the required SMTP ports.

- a) From the Application Server, open a command prompt.
- b) Use a telnet command with the following syntax: `telnet <mail_server_name_or_ip> <smtp_port#>`.

For example, my mail server name is `mail.eskwebcenter1.com` and my SMTP port is 25.

I would type: `telnet mail.eskwebcenter1.com 25`.

You are looking for a successful response (for example like the one below); a 220 response is good.

```
telnet mail.eskwebcenter1.com 25Trying 62.204.32.250...Connected to
mail.eskwebcenter1.com (62.204.32.250).220 mail.eskwebcenter1.com Mail Server;
Mon, 2 Jun 2014 11:26:40 EST
```

Type `QUIT` to exit the telnet command.

**9.** Make sure the **Server** service is running on the Application Server.

**10.** Check the Database Server:

- a) Ensure the correct database engine, version and service pack are installed. See section [Install SQL Server 2017 Express Edition on the Database Server](#).
- b) For SQL Server 2017/2019 or Express 2017/2019 verify these configurations:
  - Must be configured to run in Mixed Mode for authentication;
  - Language/Character set of SQL Server must match the Operating System language;
  - TCP/IP must be enabled.
  - If a named instance is used, the SQL Server Browser must be set to start automatically (and must be running).
- c) This assumes that the system is protected by an external firewall.

**11.** Check performance for all servers:

- a) For all servers (Web, Application, Database), ensure Windows System Performance is set to **Adjust for Best Performance**:

Go to **Control Panel > System > Advanced** and select **Adjust for Best Performance** from the **Performance** list.

- b) Ensure **Control Panel > Automatic Updates** is set to **Download updates for me, but let me choose when to install**.

Windows Updates have been known to interfere with WebCenter operation: some updates lock down ports and stop services related to web and internet.

It is your responsibility to test Microsoft updates before applying them to production servers.

- c) Ensure **Windows Firewall** is disabled:

Go to **Control Panel > Network Connections**, right-click on the active network connection and choose **Properties**. On the **Advanced** tab, ensure **Internet Connection Firewall** is disabled.

- d) Stop and **temporarily disable virus software**.

Temporarily stop virus services on the Web Server and the Application Server as they are known to interfere with the WebCenter installation script.

Only after the software is installed should you enable the virus software again.

## 2.8. Installing WebCenter

---

Installing WebCenter is a multi-step process spread over two or three servers depending on your configuration. We strongly recommend having three servers.

### 2.8.1. Overview of the Installation Procedure

This is a broad overview of the steps required to install WebCenter.

1. Perform the [Pre-Installation Steps](#) on page 26.
2. On the **Database Server**, optionally create a database called `WebCenter4_0` if using Microsoft SQL Server. If you do not create the database at this point, it will be done by the WebCenter installer.

If using Oracle, we recommend that the SID (System Identifier) of the database be `WCenter`, but it can be anything; just make sure you know the exact name so you can enter it while loading WebCenter on the Application Server.

3. On the **Application Server**:

- a) If using Microsoft SQL Server or SQL Server Express Edition, install Microsoft SQL Server Management Studio (if you have not done so already). This is provided as part of the MSSQL Express installer provided on the DVD. If you are using Oracle, it is advised to also install SQL Developer Studio, which can be downloaded from the Oracle web site.
- b) [Install ArtiosCAD Enterprise](#).

Even if the Application Server already has a version of ArtiosCAD Enterprise on it, you must load the version that came with WebCenter.

For more information on loading and configuring ArtiosCAD Enterprise, refer to the installation instructions on its media.

- c) [Activate the Licenses](#) on page 33
- d) [Install the WebCenter Application Server](#).
4. [Run the Database Schema Scripts](#) on the **Application Server**.

This is only required if the database schema scripts were not run automatically, or if the automatic run failed. Running the database schema scripts automatically is preferred. If needed, it is still possible to run the database scripts manually from the **Application Server**.

5. On the **Web Server**, [install the WebCenter Web Server](#).

Reboot the Web Server machine if prompted.

6. [Start the WebCenter Services](#):
  - a) On the **Application Server**, start **JBOSS** and **CAD-X**.
  - b) On the **Web Server**, start **Tomcat**.



**Note:** These services are set to start automatically by the installer and will thus be started automatically after each machine reboot. If you prefer to start the services manually, you may set them to start manually by changing their properties in the **Services** applet via **Control Panel > Administrative Tools**.



**Note:** Since WebCenter 12 a new monitoring service is installed and started automatically. This service can be used by your WebCenter support agent for troubleshooting.

7. [Install the On-Board Graphics Engine \(OBGE\)](#) from the Automation Engine media. This will take about a half hour.



**Note:**  
 You must install the OBGE even if you are running a separate Automation Engine production server.  
 The OBGE will handle files uploaded through the WebCenter user interface, reducing the load on your Automation Engine production server.

WebCenter is now installed.

8. Log on the WebCenter web interface and:
  - a) [Change the administrator password](#).
  - b) [Configuring the E-Mail Notifications](#) on page 46 if you will be using it.
9. Install the ArtiosCAD defaults.  
 See [Loading the ArtiosCAD Defaults](#) for details.

## 2.8.2. Install SQL Server 2017/2019 Express Edition on the Database Server

Microsoft SQL Server 2017/2019 Express Edition (supplied with WebCenter) is a free version that can serve as the database engine for WebCenter.

To install it, use the **Install the SQL Server 2017/2019 Express Edition database engine for WebCenter** link on the WebCenter installation media.

Following steps describe how to install the MSSQL Server 2017/2019 Express database on a clean system:

1. When the **SQL Server Installation Center** launches, select the option **New SQL Server stand-alone installation or add features to an existing installation**.
2. If prompted, accept the **License Terms** and click Next.
3. A quick check will be done and the installation will be prepared.
4. If unsure, unselect the check box.
5. Select the **Features** you wish to install. If unsure, enable all except **LocalDB**.
6. On the **Instance Configuration** screen, select **Named Instance** and name your instance **WEBCENTER**. You can also change the instance root directory if you want.
7. On the **Server Configuration** screen, you can define separate accounts for each service, leave as default.
8. You can also specify your **Database Engine Collation**, leave as default.
9. On the **Database Engine Configuration** screen, choose the **Mixed Mode** authentication type.
10. Click **Accept** for Consent to install Microsoft R open, and then click **Next**.

11. Click **Accept** for Consent to install Python, and then click **Next**.
12. Click **Accept** for Offline installation of Microsoft Learning Server Components, and then click **Next**.



**Note:** The “Offline installation of Microsoft Learning Server Components” needs to download 4 cabinet files (from the installer) and then point to the folder in the installer.

13. On the same screen, specify the **SQL Server system administrator (sa)** password.
14. The system will now continue with the installation. The last screen shows that the installation process was completed successfully. You may be asked to restart the computer.
15. Install SQL Server Management Studio from the Microsoft website. A link to the download page can be found in the SQL Server Installation Center screen under “Install SQL Server Management Tools” (prompted via the WebCenter installer).
16. If you now inspect your Programs, you should see **Microsoft SQL Server 2017** listed, along with other tools like **SQL Server Management Studio**.
17. Install the **SQL Command Tool**.
18. Launch the **SQL Server Management Studio** to check the connection to the Database Engine.
19. In case it has not been created yet, add a new database named **WebCenter4\_0**.
20. Launch the **SQL Server Configuration Manager** to check the TCP/IP and SQL Server service statuses.
21. Choose **SQL Server Network Configuration > Protocols for WEBCENTER >** , make sure **TCP/IP** is set to **Enabled** for **WebCenter**.
22. In the **SQL Server Services** section, restart the **SQL Server** service. Also, make sure the **SQL Server Browser** service is running.
23. If Microsoft SQL Server 2017 Management Studio is installed, you will also need to install the Microsoft SQL Command Line Utility (sqlcmd).

### 2.8.3. Install the Application Server Components

#### Install ArtiosCAD Enterprise on the Application Server

1. Log on to the Application Server as a member of the local Administrators group.
2. Load the ArtiosCAD Enterprise media that came with WebCenter.



**Important:**

Even if the Application Server already has a version of ArtiosCAD Enterprise on it, you must load the version that came with WebCenter. In the case of WebCenter 22.11, you need ArtiosCAD Enterprise 22.07

Make sure to also run the **Install Network License Components** installer from the **ArtiosCAD Enterprise Installer**.

In order for WebCenter to output PDF files, the ArtiosCAD PDF option must be purchased and then chosen when installing.

For more information on loading and configuring ArtiosCAD Enterprise, refer to its installation instructions on the ArtiosCAD media.

3. In the **Esko ArtiosCAD Setup** window, click **Install Esko ArtiosCAD Enterprise 22.03**.  
Depending on your system configuration prior to loading ArtiosCAD, the Microsoft Data Access Components and MSXML 6 may be copied to your system.

If the system prompts you to reboot, do so; the installation program will resume automatically when you log in after the system comes up again. Do not postpone rebooting if the system requests it.

4. The **Esko ArtiosCAD Enterprise 22.03 en InstallShield Wizard** opens.
  - a) **Accept** the license agreement.
  - b)
  - c) In the **Licensing Method** screen, choose **Network Licenses**. Make sure the **Server** field contains the name of the Application Server (it should be filled in by default).
  - d) In the **Setup Type** screen, choose **Typical** for a regular WebCenter installation, or **Advanced** if you will be working with ArtiosCAD Enterprise.
  - e) In the **Feature Selection** screen, make sure **PDF Import/Export** is enabled.



**Note:** You will only see this screen when performing an **Advanced** setup to work with ArtiosCAD Enterprise.

- f) In the **Advanced Options** screen, you can leave the default options selected. If you wish to change them please see the ArtiosCAD documentation for details.



**Note:** You will only see this screen when performing an **Advanced** setup to work with ArtiosCAD Enterprise.

- g) In the **User Files Folder** screen, keep the default location for the storage of user files, or **Change** it if desired. If you change the location to another system, use a UNC locator (for example `\system2\designs`) instead of a mapped drive letter.



**Note:** You will only see this screen when performing an **Advanced** setup to work with ArtiosCAD Enterprise.

- h) Click **Install**.
  - i) Once the installation is complete, click **Finish** to close the installer.

5. If the system asks you to reboot, do so.



**Note:** You will need to perform *extra configuration later* to work with ArtiosCAD Enterprise.



**Note:** Since ArtiosCAD Enterprise 14.0, you can install the Boards automatically during the ArtiosCAD Defaults installation, this is highly recommended. In case you do not choose to install the Boards during the ArtiosCAD Enterprise installation, you will have to import them manually later.

### Create a Detailed Installation Log

For Installation debugging and troubleshooting purposes, you can create a detailed installation log file for any Esko Installer programs. To do this:

Run setup using the following syntax: Path+program space /v"/I\*v space path+logfile name

- For example: For ArtiosCAD Enterprise installation from CD-ROM in my D:\ drive,
- Open a command prompt and Change to the D:\ drive
- Type: `setup /v"/I*v c:\temp\ACsetup.log"`

## Activate the Licenses

If you have not done so already, install the **Network License Components** from the **ArtiosCAD Enterprise Installer** first.

Activate your licenses using the Esko Network License Manager.



**Note:** To perform this task, consult the **Network License Manager User Manual**.

You need to activate:

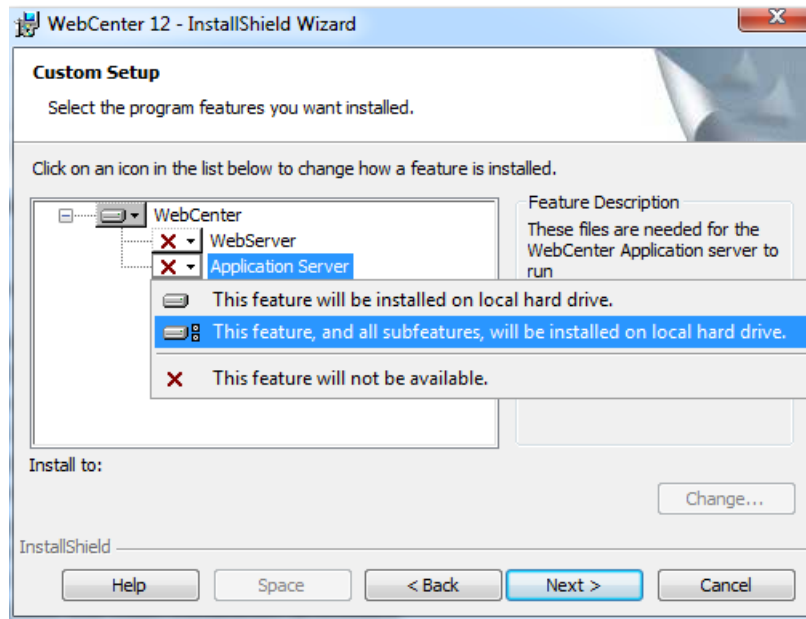
- your ArtiosCAD Enterprise license,
- your WebCenter licenses (your basic WebCenter license and any additional WebCenter license you have, for example WebCenter Task Management, WebCenter Advanced Approval, Reporting, etc.).
- your license for the OBGE (Automation Engine license).

## Install the WebCenter Application Server

The Application Server components of WebCenter can be installed from a link on the installation media.

Before doing so, click the link on the DVD to **Create the local BGSYSTEM Windows user**, if this user was not created earlier. The BGSYSTEM user creation tool will give you the option to set a custom BGSYSTEM user password.

1. Log on to the Application Server as a member of the local Administrators group.
2. Insert the WebCenter media into the media drive, and click **Software Installation** on the menu that appears at left, then **Install WebCenter 22.11**.
3. The setup wizard opens with a **Welcome** screen. Click **Next**.
4. In the **License Agreement** screen, read the agreement, and if you agree to it, select **I accept the terms in the license agreement** and click **Next**.
5. Select either **Simple (default)** or **Advanced** Installation. Keep **Simple (default)** selected unless you mean to specify non-default values for either **Installation Size**, **Image Viewer Service** or **Database User management**.
6. In the **Custom Setup** screen:



- a) Click the icon next to **WebServer** and select **This feature will not be available.**
  - b) Click the icon next to **Application Server**, and select **This feature, and all subfeatures, will be installed on local hard drive.**
  - c) If desired, click **Change** to change the installation folder.
  - d) Click **Next**.
7. In the **WebCenter File Storage Folder** screen, choose the location where all data files uploaded to WebCenter will be stored (the **FileStore**).



**Note:** If you want to change the FileStore location, click **Change...** and browse to your desired location or enter a UNC address. Using a UNC location such as `\\system\sharename\FileStore` is the most reliable option. The FileStore should be on a partition with **at least 50 GB of free space**.



**Troubleshooting:**

If the installer fails to create the FileStore, it will give you a message saying that you have to set it up manually.

Go to the folder that you will use as a FileStore (by default, `C:\Esko\Artios\WebCenter\FileStore`, or the location of your choice), and **share** it (typically to the user `BGSYSTEM`).

Click **Next**.

8. In the **Web Server System** screen, enter the name you will give to the Web Server and click **Next**.



**Note:** Once you have completed the installation and launched WebCenter, the Application Server must be able to **resolve the Web Server name you have entered here into an IP address**.

9. In the **Database Configuration** screen, enter your database information:
  - a) Choose your **Database program (Microsoft SQL Server or Oracle)**.
  - b) Enter the name of your Database Server in **Database server system**.



c) If you chose...

- **Microsoft SQL Server**, enter your **Database Instance Name**. By default, this is `WEBCENTER` (using the SQL Server 2017 Express Edition installer on the WebCenter installation media created this instance).
- **Oracle**, enter your **Database System Identifier (SID)**.

Click **Next** when done.

- 10.** A custom **WebCenter** database user password can be set. In that case you will need to provide a password value. This screen will only be shown in case of an Application Server installation.



**Note:** This screen appears only for Advanced installation.

- 11.** Choose between a **Standard (default)** and an **Extra Large** deployment. If **Extra Large** is selected, Tomcat and/or JBoss (depending on the server being installed) will be able to allocate 3 times more memory as is the case with a Standard installation.

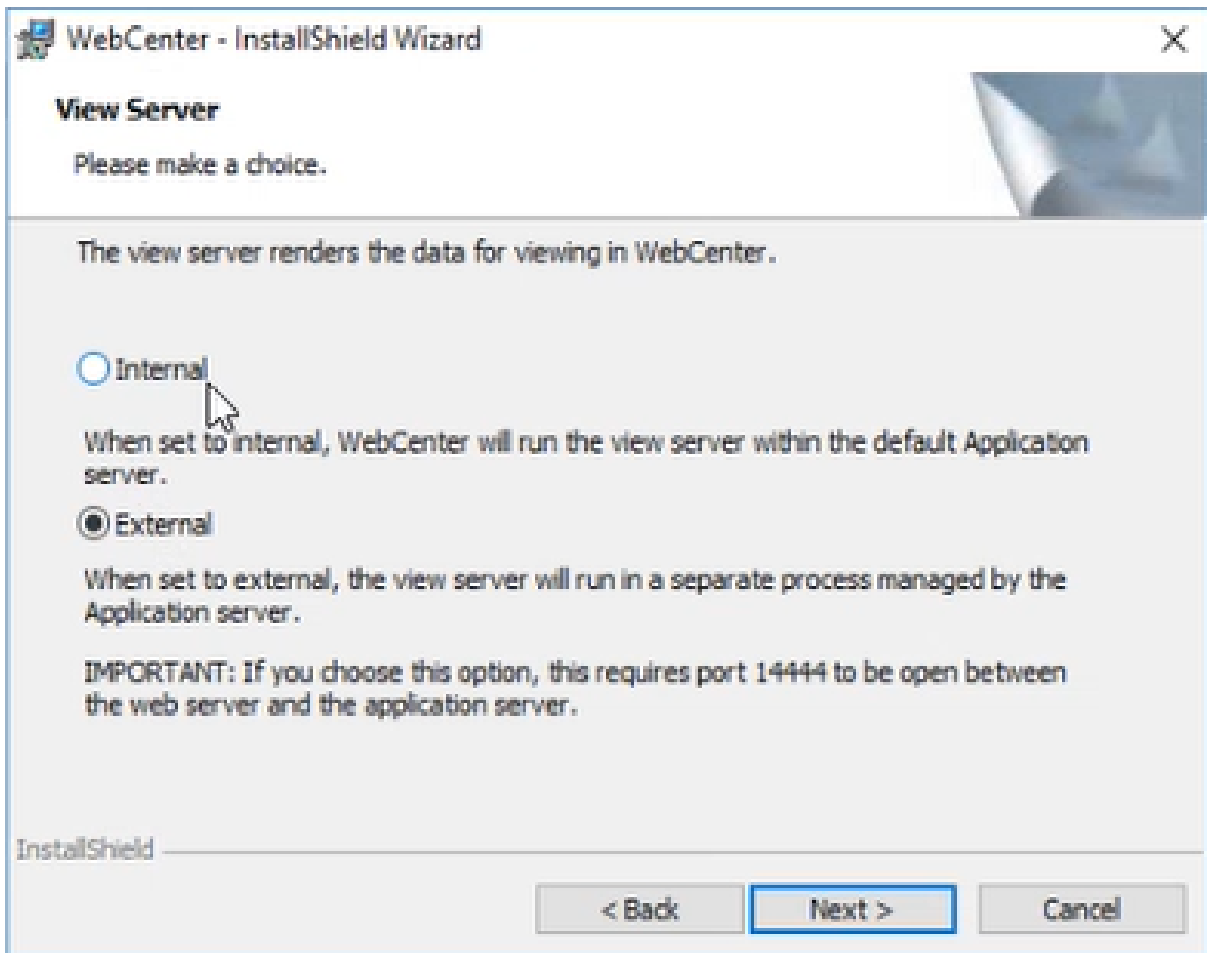


**Note:** This screen appears only for Advanced installation.

- 12.** Choose between an **Internal** or **External** (default) View server. If Internal is selected, the View Server runs inside the JBoss process. If External is selected, an additional process running the View Server will be started automatically. For the External view server to work, other ports need to be open in the firewall between the web and the application server: 14444.



**Note:** If installing Web and Application server component separately – a matching mode (either external or internal) has to be selected for both the Application server and Web server – otherwise the Viewer will not function properly.



13. Click **Install** in the **Ready to Install the Program** screen.
14. The **Esko Station Information Service** may be installed if this is the first Esko software being loaded on the machine.  
If it installs, click **Continue** when it is done, or wait 10 seconds for the process to continue automatically.
15. Click **Finish** when the installation completes.
16. If prompted, reboot the system.



**Attention:** This is important; do not postpone this step!

**Note:**

If during the installation a custom password was set for the local BGSYSTEM user the following WebCenter Services need to have their Log On information changed to reflect the custom password:

- WebCenter JBoss Application Server
- WebCenter Cad-X Server

In the server Services, right-click the WebCenter Service and choose Properties. Go to the Log On tab of the properties window and update the password of the BGSYSTEM user to the password that was set earlier. Click Apply, go back to the General tab, and click Start to start the Service.

## 2.8.4. Run the Database Schema Scripts on the Application Server

Since WebCenter 12.1, it is no longer necessary to run the database schema scripts manually. The database schema scripts can now be run from the installer dialog, for both local and remote databases.

When the database scripts are run automatically, a system console readout window will show feedback on the progress. Individual SQL statement blocks are displayed as they are being executed.



**Note:** There is a known limitation in the Database Schema Script where the execution of the script might not complete correctly if the SA password contains non-alphanumeric characters. We strongly advise to run the script with an SA user whose password only contains alphanumeric characters.

To run the database scripts automatically, database connection parameters need to be entered in the **Database Configuration** dialog which is displayed during the installation of the WebCenter Application Server:

1. Choose your database type from the **Database program** list.
2. Enter the database host name in the **Database Server system** field.
3. For SQL, enter the instance name in the **Database Instance Name** field.
4. For Oracle, enter the SID in the **Database System Identifier (SID)** field.
5. The checkbox **Run DB update scripts during installation** determines whether the database schema scripts are run automatically during installation (preferred), or not.
6. If running the scripts automatically is enabled, the **DB sysadmin connection password** field becomes available. Enter the password of the default database administrator user for your Database Server in this field.

If you still want to run the scripts manually, do the following:

1. Locate the `ServerTools\update_db.bat` file in your WebCenter installation folder (for example `C:\Esko\Artios\WebCenter\ServerTools\update_db.bat`).
2. Run this file with the appropriate parameters in the console.



**Tip:**

Run this file without parameters first to see help about which parameters you need to use.

- If you have a SQL database, you will see this:

```
C:\Esko\Artios\WebCenter\ServerTools>update_db.bat

WebCenter Database Updater

Minimally required argument is an 'sa' password
Full usage:
update_db.bat <sa_password> [ <db_type> [ <db_host> [ <db_instance> [ <db_sa_user> ] ] ] ]

Parameters other than the password are optional. The sequence of
parameters is not. If you want to specify a certain parameter, you need to
specify all preceding parameters. Any of the params you do not specify,
will default to the value specified at installation time. If you need to pass
empty parameters, use "".

db_type can be mssql or mssql
mssql (default) will create the webcenter DB if it doesn't exist yet
If you want to switch to oracle a reinstall is required.

Current defaults are:
<db_type> = mssql
<db_host> = RDUMWC11
<db_instance> = WEBCENTER
<dba_user> = sa

C:\Esko\Artios\WebCenter\ServerTools>_
```

- If you have an Oracle database, you will see this:

```
C:\Esko\Artios\WebCenter\ServerTools>update_db.bat

WebCenter Database Updater

Minimally required argument is a 'sysdba' password
Full usage:
update_db.bat <dba_password> [ <db_host>[:<db_port>] <db_service_name> [ <dba_user> ] [ <db_string_data_type> [ <db_data_table_space> [ <db_temp_table_space> [ <db_index_table_space> ] ] ] ] ]

Parameters other than the password are optional. The sequence of
parameters is not. If you want to specify a certain parameter, you need to
specify all preceding parameters. Any of the params you do not specify,
will default to the value specified at installation time. If you need to pass
empty parameters, use "".

If you want to switch to MS SQL a reinstall is required.

Current defaults are:
<db_host>[:<db_port>] = RDUMWC04
<db_service_name> = XE
<dba_user> = sys
<db_string_data_type> = varchar2
<db_data_table_space> = USERS
<db_temp_table_space> = TEMP
<db_index_table_space> = USERS

C:\Esko\Artios\WebCenter\ServerTools>_
```

## 2.8.5. Install the Web Server

## Uninstall IIS on the Web Server if Configured Incorrectly

In some cases IIS may already be installed on the Web Server, but configured incorrectly. For example, your hosting company may have set up IIS for you. In this case, IIS needs to be uninstalled. After which it can be installed again and configured correctly.

The procedure below describes how to uninstall IIS 7.

1. Start the Server Manager.
2. Navigate to the **Roles** section using the navigation tree.
3. Click **Remove Roles**.
4. The **Remove Roles Wizard** is started, use this to remove the IIS role. Removing roles and services from the server can take a couple of minutes.
5. You may get prompted to restart your server. If so please do this.

## Install IIS on the Web Server

If IIS is not installed on your Web Server, you need to install it. The procedure below explains how to IIS 8 on Windows Server 2012.



**Note:** From WebCenter 18.1 installation, IIS can also be installed with a script provided in the Installation disk.

1. Open the Server Manager.
2. IIS 8: In the **Select installation type** screen, select **Role-based or feature-based installation**.
3. IIS 8: In the **Select destination server** screen, select the appropriate server (local is selected by default) and click **Next**.
4. In the **Select server roles** screen, select **Web Server (IIS)**.

If the wizard prompts you to add features required for the Web Server, do so.

5. IIS 8: In the **Select features** screen, you do not need to add any additional features. Click **Next**.
6. IIS 8: Click **Next** in the subsequent **Web Server Role (IIS)** screen as well.
7. In the **Select role services** screen:
  - a) Enable **ASP, ISAPI Extensions** and **ISAPI Filters** in the **Application Development** section.  
If the wizard prompts you to add role services required for ASP, do so.
  - b) In **Health and Diagnostics**, enable **HTTP Logging, Logging Tools, Request Monitor** and **Tracing**.
  - c) In **Management Tools**, enable **IIS Management Tools** and **IIS 6 Management Compatibility, IIS 6 Metabase Compatibility, IIS 6 Scripting Tools** and **IIS 6 WMI Compatibility**
  - d) In **Common HTTP features**, make sure **Default Document, Directory Browsing, HTTP Errors** and **Static Content** are enabled.
  - e) In **Security**, make sure **Request filtering** is enabled.
  - f) In **Performance** make sure to enable Dynamic and Static Content Compression.
8. In the **Confirm installation selections** screen, check the settings and click **Install**.  
This installs the IIS 8 Role with the settings you have selected and the default settings.  
The **Installation Results** screen should show `Installation succeeded`.
9. Click **Close** to exit the wizard and restart the server if prompted.

## Install the WebCenter Web Server

The Web Server components of WebCenter can be installed from a link on the WebCenter installation media.

1. Log on to the Web Server as a member of the local Administrators group.
2. Ensure that **Internet Information Services (IIS)** has already been loaded by verifying that the **Internet Information Services** applet is in **Administrative Tools** in the **Control Panel**.



**Note:** If it has not been loaded, you must load it through **Add/Remove Windows Components** in **Add/Remove Programs** in the **Control Panel**.

3. Insert the WebCenter media into the media drive, and click **Software Installation** on the menu that appears at left, then **Install WebCenter 22.11**.
4. The setup wizard opens with a **Welcome** screen. Click **Next**.
5. Choose the **Simple** or **Advanced** setup. Advanced setup contains **Deployment Size** and **View Server**. Application Server installation must match with the chosen setup.
6. In the **License Agreement** screen, read the agreement, and if you agree to it, select **I accept the terms in the license agreement** and click **Next**.
7. In the **Custom Setup** screen:
  - a) Click the icon next to **WebServer**, and select **This feature, and all subfeatures, will be installed on local hard drive**.
  - b) Click the icon next to **Application Server** and select **This feature will not be available**.
  - c) If desired, click **Change** to change the installation folder.
  - d) Click **Next**.
8. In the **Option Selection** screen:
  - a) Enter the name of the **Application Server**.

This should be a different machine than the one currently running the installation.



**Note:**

You cannot configure WebCenter with IP addresses. If the web server is not able to find the application server via name resolution, you can map the IP address of the application server and the hostname of the application server in the C:\Windows\System32\drivers\etc\hosts file. For example: 10.31.140.69 myappserver.

- For more details, read this [Knowledge Base Article](#).
- [Configuring to use NAT translation](#) on page 1135.

- b) If you want to install WebCenter using an already-existing IIS website (rather than the **Default Web Site**), select it in the list.
  - c) Click **Next**.
9. Click **Install**.
10. The **Esko Station Information Service** may be installed if this is the first Esko software being loaded on the machine.

If it installs, click **Continue** when it is done, or wait 10 seconds for the process to continue automatically.

11. Click **Finish** when the installation completes.
12. Reboot the machine if prompted.

### Start the WebCenter Services

After installing WebCenter, you need to start its services using the **Services** applet in the **Windows Administrative Tools**.

#### Start the WebCenter Services on the Application Server

1. Log on to the **Application Server** as a member of the local Administrators group.
2. Click **Start > Settings > Control Panel > Administrative Tools > Services**.
3. Select the **WebCenter JBOSS Application Server** and click **Action > Start**.
4. If not started yet, select the **WebCenter Application Monitor** service and click **Action > Start**.
5. Select the **WebCenter CAD-X Server** and click **Action > Start**.
6. If you want to change the services to start automatically when the machine reboots, do so now:
  - a) Right-click a WebCenter service and choose **Properties**.
  - b) In the **General** tab, choose **Automatic** in the **Startup type** list.
  - c) Click **OK**.
  - d) Repeat for each service that has to start automatically.
7. Close the **Services** tool and log off.

#### Start the WebCenter Services on the Web Server

1. Log on to the **Web Server** as a member of the local Administrators group.
2. Click **Start > Settings > Control Panel > Administrative Tools > Services**.
3. Start the Tomcat service:
  - a) Right-click **Tomcat Web Server** and choose **Properties**.
  - b) In the **General** tab, choose **Automatic** in the **Startup type** list.  
This makes the service start automatically when the machine reboots.
  - c) Click **OK** to close the **Properties** dialog.
  - d) Select the **Tomcat Web Server** and click **Action > Start**.
4. If not started yet, select the **WebCenter Application Monitor** service and click **Action > Start**.
5. Close the **Services** tool and log off.

#### Easily Identify when WebCenter is Ready to Access

WebCenter services load a lot of data into memory during startup of its services. It is important to watch the CPU activity before accessing a WebCenter site.

You want both the Web Server and the Application Server to have a CPU activity of under 5% before accessing the site, otherwise all components may not have started and you may experience error messages. Another way is to check whether `wcr_jboss_srv.exe` threads exceed 160 and `wcr_tomcat_srv.exe` threads exceed 100.

To help watch the CPU activity easily, add the CPU performance monitor to the system tray of each WebCenter server. To do this (on both the Web Server and the Application Server):

1. Create a new shortcut in the **Start Menu > Programs > Startup** folder.
2. Browse to `Windows\system32\TASKMGR.EXE`.
3. Set the shortcut to Run "Minimized".

## 2.8.6. Install the On-Board Graphics Engine (OBGE) on the Application Server

The Automation Engine On-Board Graphics Engine or OBGE is required for WebCenter systems to generate view data.



**Note:** The Automation Engine OBGE installer is not included on the WebCenter DVD. The OBGE installer must be run separately from the available Automation Engine DVD.

### How to Perform the Automation Engine 23 System Readiness Check

Before you install the OBGE, a System Readiness Check is required. This checks whether the operating system is suited for installing and running this Esko product.

1. On the DVD, in the section **Software installation**, click the type of installation that fits your purpose (as explained in [Types of Installations](#)).
2. In the section **Installation**, under **Instructions**, click **Run the Automation Engine System Readiness Check**.
3. At the end of the **Readiness Check**, read the resulting messages carefully.
4. If the **Readiness Check** resulted in any problem, correct it before proceeding.
5. Click **Exit**.

### How to Install the Prerequisite Components

Depending on the products to be installed on this particular system, various components are required for installation. The installation wizard for these prerequisite components checks the licenses, lists the prerequisite components to install, requests confirmation for installation and then installs the required components.

The installation wizard installs the following components:

- **Microsoft Visual Studio Redistributables**
- **Database Engine for the Automation Engine** components (if you choose a **Standard** Automation Engine Installation)

Follow these steps:

1. On the DVD, in the section **installation**, click **Install the Prerequisites Components**.
2. Follow the instructions of the installation wizard.
3. When you choose a **Standard** installation, when asked to enter a password for the SQL Server, enter a **Password**, confirm it and click **Use Password** to use a different password, for example because of "Strong Password" requirements.

You can know more about Installation of Automation Engine in this [KB article](#)





**Note:** During the pre-installation of the Database Engine for Automation Engine, the Microsoft .NET Framework will be installed. You may get a warning saying that the system needs to be rebooted, followed by a fatal error "The SQL Server instance is not installed". If this happens, reboot your server and install the prerequisites again.

4. Depending on your activated licenses, the **Automation Engine Prerequisite Components Installation** process may ask you separately about the **CAD-X** component installation for both the Standard Edition component and the Enterprise Edition component. If the Automation Engine is installed on the Application server, Click **No**.
5. Click **Exit**.  
You will be redirected to the installation page to continue with the next step.

### How to Install Automation Engine 23

1. After running the **System Readiness Check** and installing the **License Server Components**, when all prerequisites are fulfilled, you can start the installation.
2. Click the **Install Automation Engine 23** link on the installation page.  
The **Automation Engine 23 Software Installation** wizard will open up.
3. Follow the instructions of the installation wizard.
4. Read the **Software and Data license agreement** carefully and select **Yes, I accept the license agreement**.
5. When asked to select the products to install on this system, select **Automation Engine 23**.  
The group **Common Components** cannot be deselected and will be installed on all systems.
6. Select the **Destination Folder** for the chosen products or accept the defaults.
7. Follow the instructions of the installation wizard.
8. At the end of the installation, click **Finish**.

In case of a clean installation, a pop-up dialog asks the user name and password to use as the System Account for installing the Windows services. The proposed default user name is BGSYSTEM and the password must be provided, either for an existing local user or domain user, or for a local user to be created. The check continues until a strong enough password is provided. If the password does not match for the existing user, an error dialog will indicate "wrong user name and password".



**Note:** You can later change this system user using the [Server Config tool](#) on the AE server itself.



**Note:** Learn more about [Users and Groups](#) in the separate chapter [Pre-Install IT Requirements](#).

After installation of Automation Engine, a shortcut named "**Automation Engine Client Apps**" is put on the desktop of the server computer.

Double-click this shortcut to open the Automation Engine **Client Apps** web page in your default browser.

This page describes the two types of client applications:

- Desktop client applications (Pilot or Shuttle): These need to be installed on each workstation from where you want to use Automation Engine.
- Browser based client applications: These do not need to be installed as they will run inside a standard local browser application. You may want to bookmark some specific pages.

### Connecting WebCenter to the ESKO Cloud OBGE

When a user uploads a viewable file to WebCenter and the system is licensed to use the Convert OBGE module a document task will be created to generate the following information using the Cloud based OBGE: Thumbnail, Deep Zoom preview files, XMP metadata and a text scrape. As this information is created it will be made available to the end user in WebCenter.

The following viewable files are supported: TIFF, PNG, JPEG, PSD and PDF.

The Action History of the document can be checked to see the status of the OBGE task. Any issues with the conversion will be listed here.



**Note:** The Convert OBGE Module needs to be licensed on your WebCenter instance.

Perform the following tasks for connecting WebCenter to the ESKO cloud OBGE:

1. Connect to Esko cloud account with valid equipment id and token.
2. Configure a new Esko Cloud Connection in the **Asset Management Connections** Page. This connection must be for Cloud Service Type **Convert**.
3. Set to the Convert service endpoint for the Esko Cloud environment where your Esko Cloud Account is active.
4. Generate the cloud token for the created equipment.
5. Enter the Esko Cloud account repository ID and Workspace Name.
6. Click **Save**.



**Note:**

- If the entered information is valid and WCR can connect to Esko Cloud you will be allowed to save the connection.
- If multiple Esko Cloud Connections of type Convert are configured in the system, the system will use the first one for OBGE requests.
- The Flag WC\_ENABLE\_CLOUD\_OBGE\_PREVIEW needs to be enabled by Esko even if you are licensed for Convert OBGE.

## 2.9. Testing WebCenter

---

On the Application Server and the Web Server, ensure IIS and the WebCenter services are started and configured to start automatically.

After starting/restarting the WebCenter services, always wait a few moments until the CPU processor activity on both servers become idle (<5%) before attempting to access the login page.

Testing each facet of WebCenter in the exact order below helps to easily and quickly identify points of failure, if any.

- IIS Connectivity - use IIS Manager to access the WebCenter\_Inst site
- IIS Security settings - can access the home page after logging in
- Database connection and Schema - can add a new record to the database
- FileStore connectivity - can write a file to the FileStore and then retrieve it
- View Data generation - can upload a graphic file and the OBGE does its job

- View and Annotate applet – can launch the applet successfully on a Graphic file
- View the status in the Trouble shooting tool for **View Server Deployment Status**

## 2.10. Configuring WebCenter

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### 2.10.1. Configure the OBGE

The Pilot lets you configure the Automation Engine On-Board Graphics Engine (OBGE) for use with WebCenter.

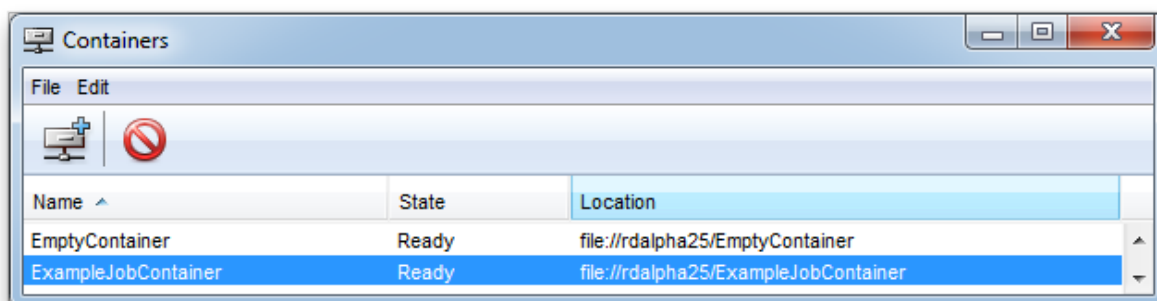
You must create a container and a hotfolder pointing to the WebCenter FileStore.

#### Create a Container

1. Log on to the Application Server as a member of the local Administrators group.
2. Double-click the **Pilot** icon on the desktop.
3. In the **Logon Information** dialog, enter BGSYSTEM as the **User Name** and the enter the same password that is set for the BGSYSTEM in WebCenter. Type the name of the Application Server in **Server Name**. Click **OK**.

This opens the Pilot. User creation in Automation Engine is done by following steps provided [here](#).

4. Go to **Tools > Containers** to open the **Containers** window.



To more about Containers in Automation Engine, you can read [here](#).

5. In that window, go to **File > New** or click .

This opens the **Create Container Wizard**.

6. In the **Welcome** screen, click **Next**.
7. In the **Location of the Job Container** screen, select **Existing Shared Folder** and click **Next**.
8. In the **Location of the Network Folder** screen, type the name of the Application Server in the **Computer Name** field and click **Next**.
9. In the **Select the shared folder** screen, select the FileStore share and click **Next**.
10. Click **Finish** and close the **Containers** window.

### Create a JDF Hot Folder (Access Point) for WebCenter

1. Choose **Tools > Access Points** from the **Pilot** main menu.
2. Click the **Create a new Access Point** button.
3. Choose type **Folder** and click **OK**.
4. Enter a **Name**.
5. In the **Folder Settings** tab, specify the **hotin** folder. This should look like: file://myserver/FileStore/JDFHotfolder/hotin.
6. In the **Monitoring** tab, set **Check every...minutes** to a low number preferably, the recommended setting is **1**.
7. In the **Automatic Actions** tab, fill in the **hotout** folder in the **Move File to** and **Output Folder** fields. This should look like: file://myserver/FileStore/JDFHotfolder/hotout. Make sure **Action** is set to **Process JDF**.
8. Click **OK**.

The Hot Folder/Access Point now appears in the Pilot and is ready for use.

## 2.10.2. Configuring the E-Mail Notifications



Use the E-Mail Notifications page to configure the e-mail environment for the notifications framework. Only WebCenter Administrators can access this page.

### Configure E-Mail Notification

While logged in to the WebCenter web interface as an administrator:

1. Go to **Admin > Configuration > E-Mail Environment Setup**.
2. Set up your e-mail environment:

Setting	Description
<b>E-Mail Service Protocol</b>	WebCenter only supports the SMTP protocol.
<b>E-Mail functionality enabled</b>	To enable/disable e-mail functionality.
<b>E-Mail debugging output in log</b>	To enable/disable e-mail debugging output in log files.
<b>E-Mail Service Host</b>	The address for the preferred mail server that will act as the server for dispatching WebCenter e-mail notifications (this server has to comply to the selected protocol type (see above)).
<b>E-Mail Service Port Number</b>	The port number on which the defined mail server is listening for incoming e-mails.

Setting	Description
<b>Outgoing E-Mail Notifications' "FROM" Address</b>	Supply a valid e-mail address. This will be used in the "From" e-mail header for every e-mail sent by WebCenter.
<b>Use TLSv1.2</b>	Select this option to use TLSv1.2 when you are trying to connect over SSL to the SMTP server. WebCenter uses the STARTTLS protocol command to indicate that, it can upgrade the insecure connection to TLSv1.2. To ensure that TLSv1.2 is used during the connection, the SMTP server should be configured to prevent insecure connections.  <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <b>Note:</b> This however does mean that if the smtp server doesn't support TLSv1.2, the insecure connection will be used instead.         </div>
<b>E-Mail Session Authentication</b>	Select this option if the mail server connection requires authentication with a user name and password.
<b>E-Mail Service Username</b>	Provide the mail account user name if authentication is required.
<b>E-Mail Service Password</b>	Provide the mail account password if authentication is required.  <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <b>Note:</b> This password is stored in an encrypted form.         </div>

3. Click **Send E-mail**.

The **E-Mail Environment Settings** page appears.

Recipient\*

Subject\*

E-Mail Body\* 

E-Mail notification environment settings are OK.

4. Type a **Recipient** address and click **Send E-mail**.

WebCenter attempts to send an e-mail to the recipient.

The E-Mail Configuration page appears, displaying a message depending on the result of the test:

- **E-Mail Sent:** The environment is set up correctly.
- **JMS System Error:** Communication with the JBoss' proprietary messaging framework failed.

An administrator should check the JBoss server configuration and/or log files for possible causes.

- **Mail Server Connection Error:** The connection to the specified mail server did not succeed.

Either the data the administrator supplied on the e-mail environment setup page was incorrect, or the mail server is currently down.

An administrator should either check the e-mail environment settings for possible misspellings or contact the mail provider as to the status of the mail server.



**Note:** The settings you defined are saved in the database. For updates from older WebCenter installations, the email setup is first loaded from the old `emailconfig.xml` file and the settings are subsequently stored in the database.

### 2.10.3. Configure WebCenter for Use with ArtiosCAD Enterprise

#### Configuring BLOBs

ArtiosCAD Enterprise supports the use of BLOBs in the database. BLOBs are Binary Large Objects - files stored as data in the database. Using BLOBs is transparent for the user.

When you configure ArtiosCAD Enterprise to use BLOBs, it also stores managed documents in the WebCenter FileStore as a cache to improve performance. If you delete a file from the FileStore, the next time you save it in ArtiosCAD Enterprise, it will be recreated in the FileStore from the BLOB.



**Note:**

You should decide if you want to use BLOBs when you install WebCenter. Switching to using BLOBs after having used ArtiosCAD Enterprise is not recommended or supported.

#### Editing `appconfig.xml` on the Application Server

To enable BLOBs, you must change a line in a configuration file on the Application Server. On the Application Server:

1. Log in as `Administrator` or as a user with administrative privileges.
2. Make a backup copy of `C:\Artios\WebCenter\config\appconfig.xml`. This file will be on the C: drive no matter where you installed WebCenter.
3. Open the file named in the previous step in a text editor such as Notepad.
4. Scroll down to `<store_files_in_blob value="false"/>` and change `false` to `true`.
5. Save the file and exit the text editor.

#### Restarting Services

Once you have changed `appconfig.xml` on the Application Server, restart all the Application Server's WebCenter services to start using BLOBs in ArtiosCAD Enterprise.

1. On the Application Server, still logged in as Administrator or as a member of the local Administrators group, open the Services applet in the Administrative Tools group in Control Panel.
2. Restart the following services by clicking each one and then clicking the **Restart** link:
  - a) WebCenter JBOSS Application Server
  - b) WebCenter CAD-X
3. Close the Services applet and log off the Application server.

ArtiosCAD Enterprise is now configured to use BLOBs. Note that WebCenter will keep copies of managed documents in its FileStore to improve performance.

### Step 2 - Optionally Uploading Boards

In case the boards were not installed yet, follow this procedure after logging in to WebCenter for the first time:

1. Log in on the Web server as a member of the local Administrators group.
2. Run the setup program with WebCenter DVD.
3. Click **Upload Boards**.
4. In the Log In To Web Browser dialog box, enter the address of the WebCenter server, an admin user's username, and that user's password. Click **OK**.
5. An Upload Boards progress bar will appear.
6. Click **Close** when the upload finishes.

### Step 3 - Creating Shared Defaults for the First Time

The next step is to run the ArtiosCAD Defaults Manager installed when you installed ArtiosCAD Enterprise on the Application server. The first time you install ArtiosCAD Enterprise 16 or later, you have to create the Shared Defaults. You can choose to either create completely new Shared Defaults, or you can choose to migrate older Defaults that are merged with the defaults for the version you are installing. In the future, you will add a new version's Defaults to the existing Shared Defaults Project.

You may also use this utility to migrate location and user defaults from older versions of ArtiosCAD Enterprise to newer versions of ArtiosCAD Enterprise.



**Note:**

Even if you do not plan to use WebCenter in combination with ArtiosCAD Enterprise, it is still necessary to install the Defaults in order for WebCenter to be able to process CAD files properly. Therefore, it is highly recommended to install the Defaults, even if you do not plan to use CAD files initially.



**Note:**

The system you use for loading the Defaults must be able to keep the Defaults on it. You will have to follow the same process to load future Defaults and the new installation will reference the older version's Defaults as part of its installation. We recommend using the Application Server for this process.



**Note:**

**This procedure takes a significant amount of time. We recommend starting it and doing other things until it completes.**

1. Log in to the Application Server as a member of the local Administrators group.
2. Click **Start > All Programs > Esko > Defaults Management** to start the Defaults Manager.
3. In the Login to Web Browser dialog box, enter your WebCenter server URL, admin username, admin password, and click **OK**.
4. Click **Create new shared defaults**.
5. A progress bar appears. This step will take a few minutes.
6. Click **Close** when the installation process is done.

### Configuration in the WebCenter User Interface



**Note:** See the WebCenter Administration Guide for more details about the following steps.

1. Log on to WebCenter with the `admin` account (see [Log On to WebCenter and Change the Admin Password](#)).
2. Configure a **Company** and **Location** for the initial ArtiosCAD Enterprise users.
3. Create a custom group, if desired, for the initial ArtiosCAD Enterprise users.
4. Create the initial ArtiosCAD Enterprise users. While creating them:
  - a) Make sure they are at least **Project Managers with Limited Visibility of Companies and Groups**.
  - b) Assign them to the **Company** and **Location** you created.
  - c) Assign them to one or more groups.

Even if you did not create any custom group, you should assign them to the **USERS** group.
5. Invite them to the **System Defaults** Project (which is **Shared Defaults** in ArtiosCAD Enterprise).



**Tip:** You can do this either individually for every user or once through Group membership if you added all users to the same group (such as **USERS**).

Inviting them to the Project means that they will be able to use the Defaults.

In order for users to change Shared Defaults, they must have Full permissions on the Project and be members of the **ADMINS** group.



**Note:** All ArtiosCAD Enterprise users must be invited to the **System Defaults** Project. Users who are not invited to the project will receive a UFANEX error when they launch ArtiosCAD Enterprise.

## 2.10.4. Secure your WebCenter Site with SSL

SSL is a **protocol for securing communication over the Internet**. It works by using a private key to encrypt data that is transferred over an SSL connection.

URLs using an SSL connection start with `https://` instead of `http://`.



To use SSL, you are required to obtain an **SSL certificate** and install it into Internet Information Services (IIS) on the Web Server.



**Note:** We strongly recommend you secure your WebCenter site with SSL, especially if you plan to use WebCenter over the internet (not only within a Local Area Network).

## Secure the WebCenter Web Server with SSL

You will need to:

1. [Create a Certificate Signing Request \(CSR\)](#) on page 51.
2. [Request an SSL Certificate from a Certificate Authority](#) on page 52.
3. [Install the Intermediate SSL Certificate](#) on page 52.
4. [Install your Signed Certificate](#) on page 53.
5. [Export your Certificate if Necessary](#) on page 54.

You only need to do this if you haven't installed the certificates directly on your Web Server.

6. [Bind your Certificate to your WebCenter Site](#) on page 54.
7. [Redirect HTTP Traffic to HTTPS](#) on page 55.

## Create a Certificate Signing Request (CSR)

To get an SSL certificate, you need to first create a Certificate Signing Request, that you will send to a Certificate Authority.

1. On the Web Server, click **Start**, then **Administrative Tools**, then **Internet Information Services (IIS) Manager**.
2. In the **Internet Information Services (IIS) Manager** dialog, click your server name (on the left).
3. In the dialog's central pane, double-click the **Server Certificates** icon in the **Security** section.
4. In the **Actions** pane on the right, click **Create Certificate Request...**

This opens the **Request Certificate** wizard.

5. In the **Distinguished Name Properties** screen, enter your information as follows:
  - **Common Name:** the name through which the certificate will be accessed (usually the fully-qualified domain name, for example `www.domain.com`).
  - **Organization:** the legally registered name of your organization/company.
  - **Organizational unit:** the name of your department within the organization.
  - **City/locality:** the city in which your organization is located.
  - **State/province:** the state in which your organization is located.
  - **Country/region:** the two-lettered ISO-3166 country code of the country in which your organization is located. You can find a list of valid country codes on [http://www.ssl.com/csrs/country\\_codes](http://www.ssl.com/csrs/country_codes).

Click **Next**.

6. In the **Cryptographic Service Provider Properties** screen:

- leave **Cryptographic Service Provider** to **Microsoft RSA SChannel Cryptographic Provider**,
- in **Bit length**, select **2048** or higher.

Click **Next**.

7. In the **File Name** screen, enter a name for your Certificate Signing Request, and select a location in which to save it.

Click **Finish**.

### Request an SSL Certificate from a Certificate Authority

The customer is responsible for choosing the SSL provider (Certificate Authority), obtaining certificates, as well as following that company's specific instructions for installation and configuration.

Esko cannot obtain SSL certificates on behalf of its customers.

1. Send your [Certificate Signing Request file](#) to a public Certificate Authority.



**Note:**

- If you do an Internet Search for "SSL certificate", you will find many providers with different pricing and options. We have good experiences with VeriSign, Network Solutions, Godaddy.com, and Thawte.
- The application process can take up to 30 days... Start the application process well in advance!
- If your company has a DNB (Dun & Bradstreet) number, the application process will be a lot easier and quicker if you can provide it.
- Your certificate will be linked to your website (for example `webcenter.domain.com`). Changing your website name will require a new certificate.

2. The Certificate Authority will provide you with:

- an intermediate certificate, verified by the root certificate installed by default on your Web Server (where you created the Certificate Signing Request),



**Note:** You may need to download this from a web link.

- your server certificate, verified by that intermediate certificate (signed by the Certificate Authority).

Make sure you have both certificates before going further! You will need to install both of them on your Web Server.

3. Copy those certificates to your Web Server.

### Install the Intermediate SSL Certificate

You need to install the intermediate certificate before you [install your signed certificate](#).

1. On your Web Server, click **Start**, then **Run...**

2. Type `mmc` and press **Enter**.
3. In the Microsoft Management Console (**Console1**) window that opens, go to **File > Add/Remove Snap-in...**
4. In the **Add or Remove Snap-ins** dialog, select **Certificates**, and click **Add**.
5. In the **Certificates snap-in** dialog, select **Computer Account**, and click **Next**.
6. In the **Select Computer** screen, select **Local Computer**, then click **Finish**.
7. Click **OK** in the **Add or Remove Snap-ins** dialog.
8. In the **Console1** window:
  - a) expand the **Certificates (Local Computer)** folder,
  - b) right-click **Intermediate Certification Authorities**, and go to **All Tasks > Import...**
9. In the **Certificate Import Wizard** dialog:
  - a) click **Next** to get to the **File to Import** screen,
  - b) browse to the location containing your intermediate certificate file,
  - c) in the **Open** dialog, change the file extension filter to **PKCS #7 Certificates (\*.spc;\*.p7b)**,
  - d) select your `*_iis_intermediates.p7b` file, and click **Open**.



**Note:** Only install your intermediate certificate, not your signed certificate in this area! Installing your signed certificate here would remove your intermediate certificate from the list, and you would need to reinstall it.

- e) Click **Next**.
10. In the **Certificate Store** screen:
  - a) select **Place all certificates in the following store**,
  - b) click **Browse**, select **Intermediate Certification Authorities** in the **Select Certificate Store** pop-up, and click **OK**,
  - c) click **Next**.
11. Click:
  - a) **Finish** in the **Certificate Import Wizard** dialog,
  - b) **OK** in the **Certificate Import Wizard** pop-up stating that the import was successful.
12. Close the **Console1** window, then click **No** in the pop-up asking to save the console settings.

### Install your Signed Certificate

Once your *intermediate certificate is installed*, install your signed certificate:

1. On the Web Server, extract your `*.cer` certificate file from the zip file you got from the Certificate Authority.
2. Click **Start**, then **Administrative Tools**, then **Internet Information Services (IIS) Manager**.
3. In the **Internet Information Services (IIS) Manager** dialog, click your server name (at left).
4. In the dialog's central pane, double-click the **Server Certificates** icon in the **Security** section.
5. In the **Actions** pane at right, click **Complete Certificate Request...**  
This opens the **Complete Certificate Request** wizard.
6. In the **Specify Certificate Authority Response** screen:
  - a) browse to your `*.cer` certificate file,
  - b) enter a **Friendly name** for your certificate.

This will be used by the server administrator to easily distinguish the certificate.

- c) Click **OK**.

Your certificate is now installed. If you cannot see it yet in the **Server Certificates** list of the **Internet Information Services (IIS) Manager** dialog, press **F5** to refresh.

### Export your Certificate if Necessary

We recommend you create the [Certificate Signing Request](#) and install the certificates directly on your WebCenter Web Server.

However, if you do this on another server, you can export the signed certificate then import it on your Web Server.

1. If you haven't done so already, [install the intermediate certificate on your Web Server](#).
2. Export your signed certificate from the server it is installed on:
  - a) In **Internet Information Services (IIS) Manager**, select your certificate in the **Server Certificates** list and click **Export...** in the **Actions** pane at right.
  - b) In the **Export Certificate** dialog that opens:
    1. Type a file name in **Export to**, or click the browse button to navigate to a file in which to store the certificate for exporting.
    2. Type a **Password** if you want to associate a password with the exported certificate.
    3. Retype the password in **Confirm password** and click **OK**.

This exports your certificate to a `.pfx` file.

3. Import your signed certificate on your Web Server:
  - a) Click **Start**, then **Administrative Tools**, then **Internet Information Services (IIS) Manager**.
  - b) In the **Internet Information Services (IIS) Manager** dialog, click your server name (at left).
  - c) In the dialog's central pane, double-click the **Server Certificates** icon in the **Security** section.
  - d) In the **Actions** pane at right, click **Import...**
  - e) In the **Import Certificate** dialog that opens:
    1. browse to your **Certificate file (.pfx)**,
    2. enter the **Password** associated with your certificate if there is one,
    3. make sure that **Allow this certificate to be exported** is selected.



**Note:** This is important, as due to a bug in IIS, the [site binding](#) will not work if the certificate is not exportable.

4. Click **OK**.

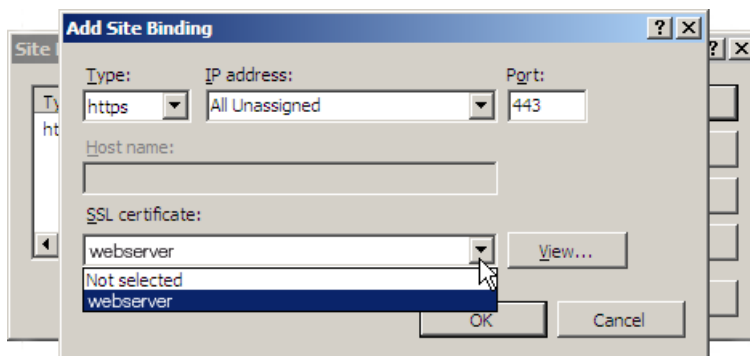
Your certificate is now installed on your Web Server. If you cannot see it yet in the **Server Certificates** list of the **Internet Information Services (IIS) Manager** dialog, press **F5** to refresh.

### Bind your Certificate to your WebCenter Site

Once you have installed your certificate on your Web Server, you need to bind it to your WebCenter site, so that the certificate will be used to authenticate your WebCenter site when users browse to it.

1. Still in the **Internet Information Services (IIS) Manager**, right-click the **Default Web Site** node in the **Connections** pane, (or the node of the IIS website you have deployed your Web Server on if it's not the default website) and select **Edit Bindings...**
2. In the **Site Bindings** dialog that opens, click **Add**.

3. In the **Add Site Binding** pop-up:
  - a) Choose **https** as **Type**.
  - b) Leave the default https **Port (443)**.
  - c) In the **SSL Certificate** list, select your Web Server.
  - d) Click **OK** and then **OK** again.



### Redirect HTTP Traffic to HTTPS

To ensure security, end users should only use `https://` to access your WebCenter site. If someone accidentally uses `http://` instead, they will not be using a secure connection.

To avoid this, you can make sure `http://` traffic to your WebCenter site is automatically redirected to `https://`. This will be transparent for the users (they will not get an error page but will simply be able to access your site through `https://`).

For this, you need to download a (free) extension for IIS.

1. On your Web Server, download and install the **URL Rewrite** extension for IIS.
 

Go to <http://www.iis.net/downloads/microsoft/url-rewrite>, click the **Install this extension** button and follow the steps on screen.
2. In the **Internet Information Services (IIS) Manager**, make sure SSL is not required so users don't get an error when connecting to your site using `http://`:
  - a) Select the **Default Web Site** node in the **Connections** pane, (or the node of the IIS website you have deployed your Web Server on if it's not the default website).
  - b) Double-click **SSL Settings** in the center pane.
  - c) Under **SSL Settings**, make sure that **Require SSL** is not selected.
3. Click **Default Web Site** or the node of your IIS website again, then double-click **URL Rewrite** in the center pane.
4. Create a blank inbound rule:
  - a) Click **Add Rule(s)...** in the **Actions** pane on the right.
  - b) In the **Add Rule(s)** pop-up, click **Blank rule** under **Inbound rules**, then click **OK**.

The center pane now shows the **Edit Inbound Rule** form.
5. Edit the rule as follows to perform the automatic redirection:
  - a) Enter a **Name** for the rule, for example `HTTP to HTTPS redirect`.
  - b) Under **Match URL**, fill in the settings as follows:

<b>Requested URL</b>	Matches the Pattern
<b>Using</b>	Regular Expressions
<b>Pattern</b>	(.*)
<b>Ignore case</b>	on

c) Under **Conditions**, select **Match All** in **Logical grouping**.

d) Add the first condition:

1. Click the **Add...** button to open the **Add Condition** pop-up.
2. Fill in the settings as follows:

<b>Condition input</b>	{HTTPS}
<b>Check if input string</b>	Matches the Pattern
<b>Pattern</b>	off
<b>Ignore case</b>	on

This ignores addresses starting with `https://` (they don't need to be redirected).


3. Click **OK**.

e) Add the second condition:

1. Click the **Add...** button to open the **Add Condition** pop-up.
2. Fill in the settings as follows:

<b>Condition input</b>	{SERVER_ADDR}
<b>Check if input string</b>	Does Not Match the Pattern
<b>Pattern</b>	::1
<b>Ignore case</b>	on

This ignores addresses using `localhost` through IPV6 (`::1`), as forcing **https://** for those would give a certificate error as the one below (because the certificate is linked to your site name and not the server's IPV6 address).






There is a problem with this website's security certificate.

---

The security certificate presented by this website was issued for a different website's address.

Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.

**We recommend that you close this webpage and do not continue to this website.**

-  [Click here to close this webpage.](#)
-  [Continue to this website \(not recommended\).](#)
-  [More information](#)

3. Click **OK**.
- f) Add the third condition:
1. Click the **Add...** button to open the **Add Condition** pop-up.
  2. Fill in the settings as follows:

<b>Condition input</b>	{SERVER_ADDR}
<b>Check if input string</b>	Does Not Match the Pattern
<b>Pattern</b>	127.0.0.1
<b>Ignore case</b>	on

This ignores addresses using localhost through IPV4 (127.0.0.1), as forcing https:// for those would give a certificate error (because the certificate is linked to your site name and not the server's IPV4 address).

3. Click **OK**.
- g) Under **Action**, fill in the settings as follows:

<b>Action type</b>	Redirect
<b>Redirect URL</b>	https://website-name.com/{R:1} where website-name.com is the name of your WebCenter site, to which you have linked your certificate
<b>Append query string</b>	on
<b>Redirect type</b>	Found (302)

Your rule should look like this:

### Edit Inbound Rule

Name: HTTP to HTTPS redirect

**Match URL**

Requested URL:  Using:

Pattern:

Ignore case

**Conditions**

Logical grouping:

Input	Type	Pattern	
{HTTPS}	Matches the Pattern	off	<input type="button" value="Add..."/>
{SERVER_ADDR}	Does Not Match the Pattern	::1	<input type="button" value="Edit..."/>
{SERVER_ADDR}	Does Not Match the Pattern	127.0.0.1	<input type="button" value="Remove"/>
			<input type="button" value="Move Up"/>
			<input type="button" value="Move Down"/>

Track capture groups across conditions

**Server Variables**

**Action**

Action type:

Action Properties

Redirect URL:

Append query string

Redirect type:

h) Click **Apply** in the **Actions** pane at right.

You should now see your rule in the **URL Rewrite** list in the center pane.

6. Browse to your WebCenter site using `http://` and check that it is redirected to a `https://` connection.



### Install SSL Certificates on the Workflow Production Server

If...

- you are planning to integrate your Automation Engine server with WebCenter,
- your WebCenter site is secure (it demands `https://` connections),
- your Automation Engine server and your WebCenter are not located within the same Local Area Network,

... you need to make sure your Automation Engine server can communicate with your WebCenter server over `https://`.



**Important:**

If you have installed your certificates properly on the Web Server (the *intermediate certificate* and the *signed server certificate*), **this should work without you having to do anything.**

If you haven't, or you are still experiencing connection problems, you should import the WebCenter certificates into the Automation Engine keystore.

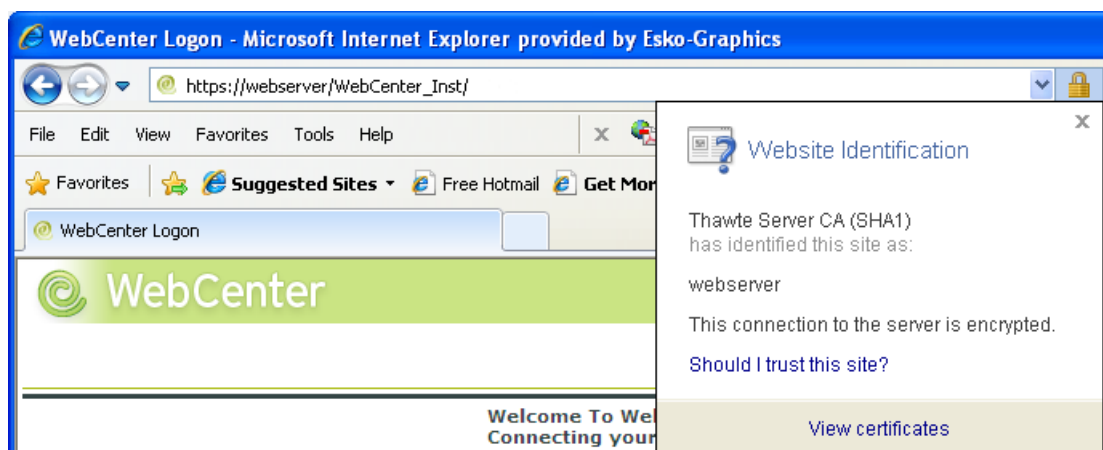
This can also apply when WebCenter and Automation Engine are in the same LAN, if `https://` communication is also enforced inside the LAN. Check with your network administrator if this is the case.

### Export the Certificates from the WebCenter Site

1. Log on to the Automation Engine server as a local administrator.
2. Open a web browser and navigate to the secured WebCenter site.
3. Examine the WebCenter site's certificates.

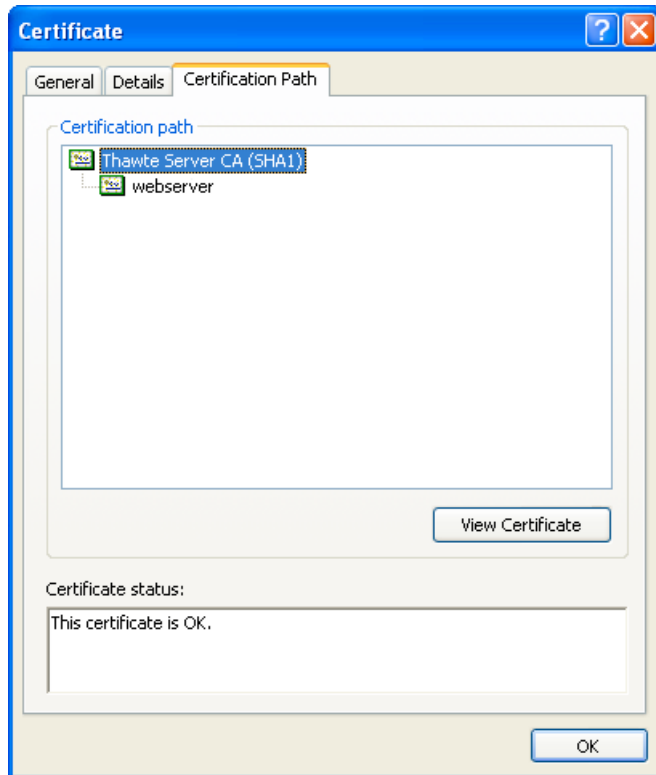
How you do this depends on the web browser you use:

- a) Click the lock icon at the end of the address bar and click **View certificates** in the pop-up.

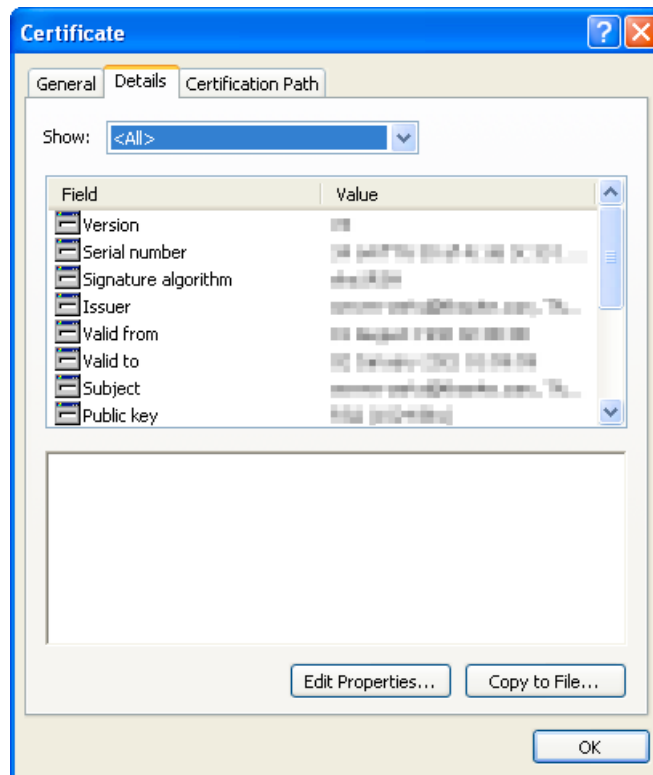


- b) In the **Certificate** dialog, click the **Certification Path** tab.

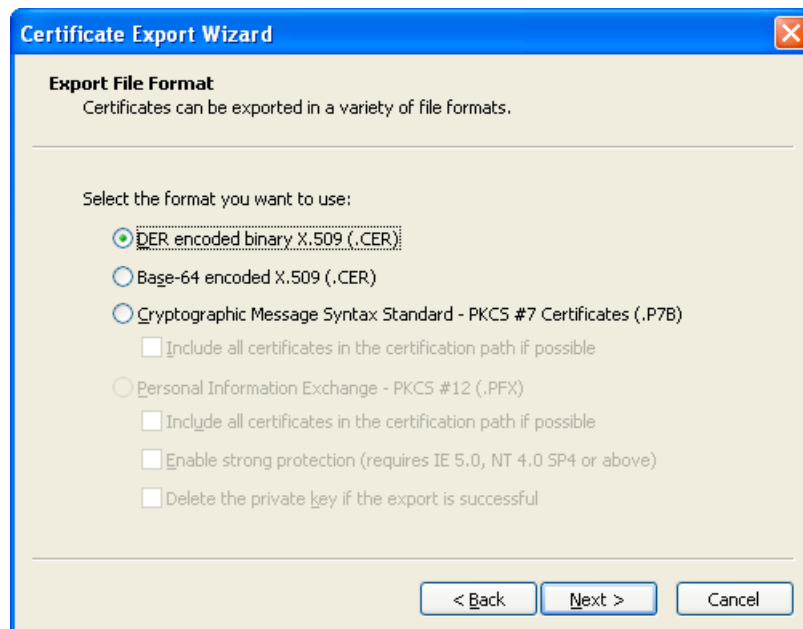
This tab displays the certificate hierarchy. Each top-level entry in the hierarchy represents a certificate.



4. Export all the certificates (top-level entries) in the hierarchy:
  - a) Highlight the first certificate in the hierarchy (for example, `Thawte Server CA (SHA1)`).
  - b) Click **View Certificate**.
  - c) Click the **Details** tab.



- d) Click **Copy to File** to begin the **Export Wizard**. Click **Next**.
- e) Select **DER encoded binary... (.CER)** and click **Next**.



- f) Click **Browse** or type in a valid path and name the certificate (\*.cer). We recommend using a short path and name (such as c:\temp\vali.cer). Click **Next**.
- g) Click **Finish**, then **OK** and once more **OK**.

- h) Repeat these steps until you have exported all the certificates. Close the web browser when you are finished.

### Import the Certificates into the Workflow Server Keystore

While still logged on to the Automation Engine server as a local administrator, import the certificate files into the Automation Engine keystore:

1. Open a DOS command prompt.
2. Change to the Esko Automation Engine software directory which contains the keytool utility: `c:\esko\bg_prog_fastserverclnt_v210\jre\bin`

For ESKO Software platform , this will typically be `c:\esko\bg_prog_fastserverclnt_v210\jre\bin`

3. Run the import utility for each certificate downloaded, in the proper order: `keytool -importcert -file <path>\*.cer -alias <aliasname> -keystore <keystore_path>`.

Your `<keystore_path>` is the path to `bg_prog_fastserver_vxxx\jre\lib\security\cacerts`. For example: `c:\esko\bg_prog_fastserver_v210\jre\lib\security\cacerts`.

You will be prompted for a password. The password is: `changeit` (case sensitive).

4. You might be asked to trust the certificate. Enter `Y` for Yes.

It is also possible that the tool tells you that this certificate is already installed. If so, that's ok, go on with the next certificate.

You should get a successful message like `Certificate was added to keystore`.

5. Repeat for each certificate to import in the hierarchy.
6. Reboot the Automation Engine computer to ensure that the changes take effect.

#### Example

You are running Automation Engine 21.11 and the Automation Engine server software is installed on `E:\Esko`.

You have downloaded two certificates from the WebCenter site in the folder `c:\temp`: `valicert.cer` and `starfield.cer`.

`valicert.cer` was first in the hierarchy, so you would import this first, then repeat for `starfield.cer`.

You would proceed as follows:

1. Using a command prompt, go to `e:\esko\bg_prog_fastserver_v140\jre\bin`.
2. Type `Keytool -importcert -file c:\temp\valicert.cer -alias valicert -keystore e:\esko\bg_prog_fastserver_v210\jre\lib\security\cacerts`
3. If asked for the password, type `changeit`.
4. If asked to trust the certificate, type `Y`.
5. Repeat the same command for the next certificate, `startfield.cer`.
6. Reboot the Automation Engine computer to ensure that the changes take effect.

### Import the Certificates into the Workflow Client Keystore

With a secured WebCenter site (requiring `https://`), you cannot check the connection between Automation Engine and WebCenter with the **Check Connection** button in **Configure**.

To be able to do this, you need to install the Web Server certificates in the Automation Engine **client** keystore too (even if the client is running on the same machine as the Automation Engine server).



**Tip:**

You should also do this if publishing fails because Automation Engine doesn't have the appropriate certificates. Typically, this gives an error message like the one below:

```
javax.net.ssl.SSLHandshakeException: sun.security.validator.ValidatorException:
PKIX path building failed:
sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid
certification path to requested target
```

1. While logged on to the Automation Engine client machine as a local administrator, open a DOS command prompt.
2. Change to the Esko Automation Engine software directory which contains the keytool utility:  
`\bg_prog_fastserverclnt_vxxx\jre\bin`

For ESKO Software platform, this will typically be `c:\esko`  
`\bg_prog_fastserverclnt_v210\jre\bin`



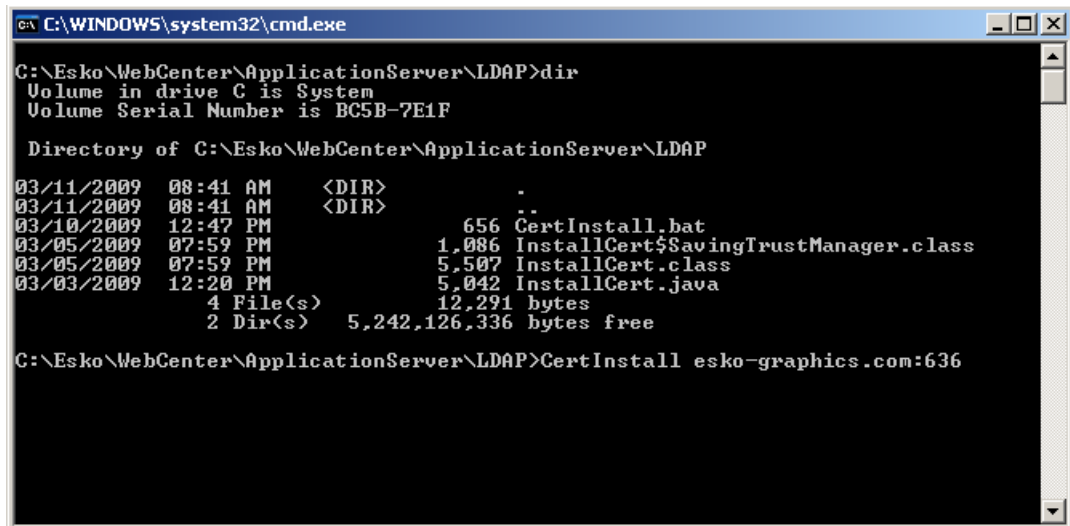
**Note:** For the client, make sure to use `bg_prog_fastserverclnt` and not `bg_prog_fastserver` as for the server!

3. Run the import utility for each certificate downloaded, in the proper order: `keytool -importcert -file <path>\*.cer -alias <aliasname> -keystore <keystore_path>`.  
 Your `<keystore_path>` is the path to `bg_prog_fastserverclnt_vxxx\jre\lib\security\cacerts`. For example: `c:\esko\bg_prog_fastserverclnt_v210\jre\lib\security\cacerts`.  
 You will be prompted for a password. The password is: `changeit` (case sensitive).
4. You might be asked to trust the certificate. Enter `Y` for Yes.  
 It is also possible that the tool tells you that this certificate is already installed. If so, that's ok, go on with the next certificate.  
 You should get a successful message like `Certificate was added to keystore`.
5. Repeat for each certificate to import in the hierarchy.
6. Reboot the Automation Engine computer to ensure that the changes take effect.

### 2.10.5. Install Certificates for LDAPS on the Application Server

To connect your WebCenter installation to a secure LDAP server (LDAPS), you have to install a certificate obtained from that LDAPS server.

1. Open a command prompt on the WebCenter Application Server.
2. Change directory to the location of `\WebCenter\ApplicationServer\LDAP\CertInstall.bat`.
3. Issue the following command: `CertInstall servername:port`, where `servername` is the name or IP of the LDAP server and `port` is the port used for secure connection (typically 636).



```

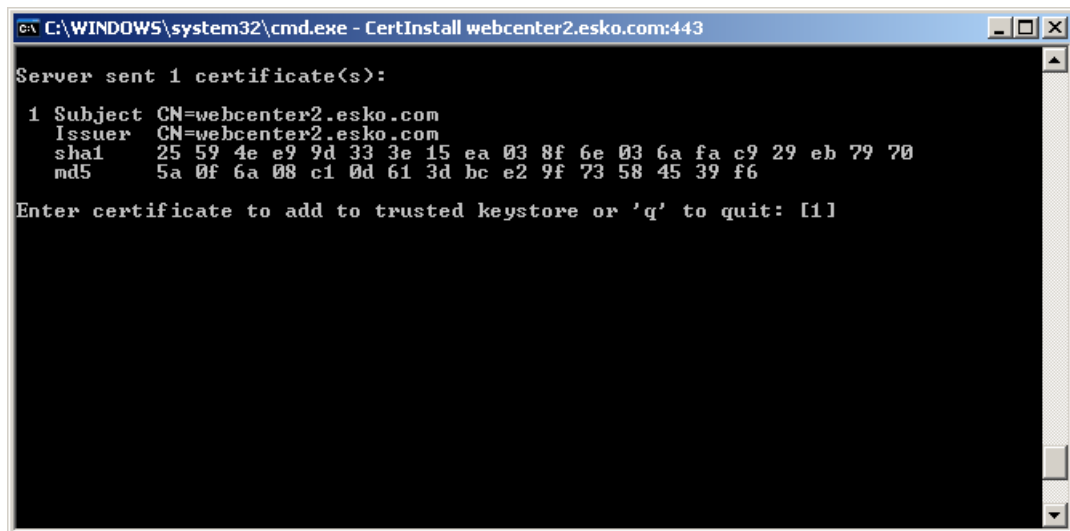
C:\WINDOWS\system32\cmd.exe
C:\Esko\WebCenter\ApplicationServer\LDAP>dir
Volume in drive C is System
Volume Serial Number is BC5B-7E1F

Directory of C:\Esko\WebCenter\ApplicationServer\LDAP

03/11/2009  08:41 AM    <DIR>          .
03/11/2009  08:41 AM    <DIR>          ..
03/10/2009  12:47 PM             656 CertInstall.bat
03/05/2009  07:59 PM           1,086 InstallCert$SavingTrustManager.class
03/05/2009  07:59 PM           5,507 InstallCert.class
03/03/2009  12:20 PM           5,042 InstallCert.java
               4 File(s)          12,291 bytes
               2 Dir(s)          5,242,126,336 bytes free

C:\Esko\WebCenter\ApplicationServer\LDAP>CertInstall esko-graphics.com:636
    
```

4. To make changes active ensure that you restart JBoss, if JBoss was running.  
If successful, a list of certificates sent by the server is displayed (ignore any additional messages).



```

C:\WINDOWS\system32\cmd.exe - CertInstall webcenter2.esko.com:443
Server sent 1 certificate(s):

1 Subject CN=webcenter2.esko.com
   Issuer CN=webcenter2.esko.com
   sha1 25 59 4e e9 9d 33 3e 15 ea 03 8f 6e 03 6a fa c9 29 eb 79 70
   md5 5a 0f 6a 08 c1 0d 61 3d bc e2 9f 73 58 45 39 f6

Enter certificate to add to trusted keystore or 'q' to quit: [1]
    
```

5. To install a given certificate, enter its number in the list and press `Enter`.  
We suggest that you install all certificates. Only one certificate can be installed each time you run `CertInstall` so it can be necessary to run it multiple times.

```

C:\WINDOWS\system32\cmd.exe
[2]: ObjectId: 2.5.29.37 Criticality=false
ExtendedKeyUsages [
  serverAuth
]
]
]
Algorithm: [SHA1withRSA]
Signature:
0000: 5C BF 42 0C 3E D2 E9 CE      22 70 2E BF FD 28 6A 2B   \.B.>... "p...<j+
0010: 93 C4 21 B1 BF BC 4C 69      25 D3 F1 F2 45 45 06 37   ..!...Li%...EE.7
0020: 10 D3 A0 A9 03 F3 77 0D      BF 5A AD 0D DC 6A 6A F8   .....w..Z...jj.
0030: 8B 6A 55 0A 43 42 60 81      11 68 77 10 00 A2 F7 89   .jU.CB'..hw....
0040: 0F 98 58 4C A0 12 69 DE      88 26 B5 EF C5 58 C4 87   ..XL..i.&...X..
0050: CD 2B 7B 13 9D 4D 2B 05      A2 BB 81 BD F5 2B A3 B5   .+...M+.....+.
0060: D2 98 02 EA F7 14 BA F4      79 78 AE D4 63 73 75 06   .....yx..csu.
0070: 55 2E 46 C3 A2 0A 97 4A      E9 6A 51 53 E2 D3 EE 72   U.F....J.jQS...r
]
]
Added certificate to keystore 'jssecacerts' using alias 'webcenter2.esko.com-1'
Copying the keystore file jssecacerts to C:\Program Files\Java\jdk1.5.0_15\jre\l
ib\security
1 file(s) copied.
C:\Esko\WebCenter\ApplicationServer\LDAP>
    
```



**Note:**

**Troubleshooting the certificate installation**

The certificates should be properly installed. If not, try these troubleshooting tips:

- **Server or port name is not correct**

If the supplied parameters are wrong, the result can look something like the following:

```

C:\WINDOWS\system32\cmd.exe
Installing Certificate for SSL connection...
Loading KeyStore C:\Program Files\Java\jre1.6.0_07\lib\security\cacerts...
Opening connection to esko-graphics.com:636...
Starting SSL handshake...

javax.net.ssl.SSLHandshakeException: Remote host closed connection during handshake
    at com.sun.net.ssl.internal.ssl.SSLSocketImpl.readRecord(Unknown Source)
    at com.sun.net.ssl.internal.ssl.SSLSocketImpl.performInitialHandshake(Unknown Source)
    at com.sun.net.ssl.internal.ssl.SSLSocketImpl.startHandshake(Unknown Source)
    at com.sun.net.ssl.internal.ssl.SSLSocketImpl.startHandshake(Unknown Source)
    at InstallCert.main(InstallCert.java:56)
Caused by: java.io.EOFException: SSL peer shut down incorrectly
    at com.sun.net.ssl.internal.ssl.InputRecord.read(Unknown Source)
    ... 5 more
Could not obtain server certificate chain
Copying the keystore file jssecacerts to C:\Program Files\Java\jdk1.5.0_15\jre\lib\security
The system cannot find the file specified.
C:\Esko\WebCenter\ApplicationServer\LDAP>
    
```

In this case, contact your IT system administrator and verify the parameters supplied.

## 2.10.6. Integrate WebCenter with a Workflow Production Server

You can configure WebCenter to integrate with your existing Automation Engine production server.

In this documentation, we assume that you have both these applications installed and running properly.

### Understanding WebCenter Integration

WebCenter can run without Automation Engine, but its full potential is realized when integrating both systems.

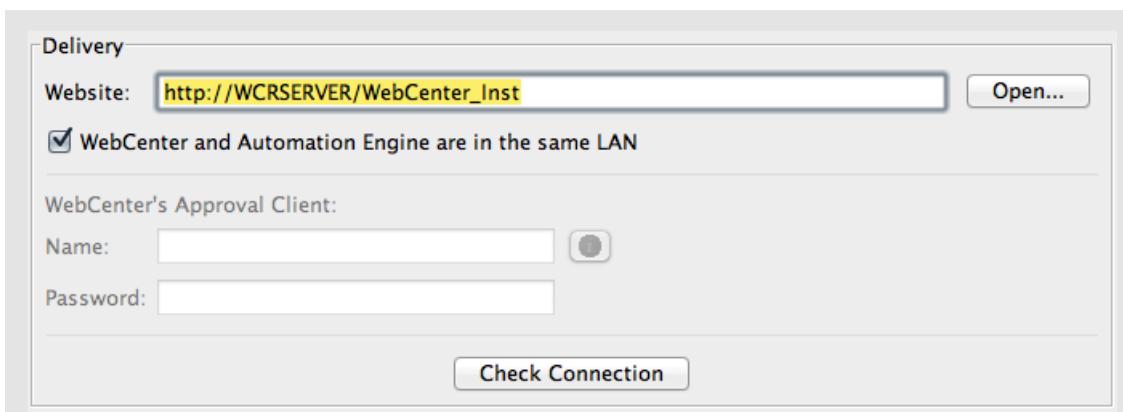
Integrating WebCenter with an Automation Engine production server allows you to upload production files to WebCenter for approval and advanced project management.

To make this collaboration between the systems possible, you must:

- Add the WebCenter site information in the Automation Engine **Configure** window.
- Configure the Job Web Page URLs in the Automation Engine **Configure** window.
- Set up the **WebCenter View** information for the Automation Engine users.
- Set up the **Publish on WebCenter** ticket.

### Add the WebCenter Site Information

1. Launch the Automation Engine Pilot and connect to the production server with an administrator account.
2. Choose **Tools > Configure**.
3. In the **Configure** window, select **WebCenter Sites** in the left pane.
4. Click the **+** icon.



5. In the **Website** field of the **Delivery** area, enter the URL of the WebCenter site (for example: `http://wcrserver/WebCenter_Inst`).



**Note:** If your site uses secure HTTP, make sure to enter an HTTPS address.

6. Click **Open...** to test the connection. The login page for WebCenter should appear. If it doesn't, check your settings.
7. If the Automation Engine server and the WebCenter Application Server are not on the same LAN, deselect **WebCenter and Automation Engine are in the same LAN**.

If using Automation Engine 18.0.1, 18.0, or 16.1.1 to connect to WebCenter for outside-LAN approval feedback, you need to install a hotfix on Automation Engine for this functionality to still work after updating to WebCenter 18.1.

The hotfixes can be downloaded from [mysoftware.esko.com](http://mysoftware.esko.com):



- Automation Engine 16.1.1: HF\_201801047\_20181212\_AE-WCR\_18\_1
- Automation Engine 18.0: HF\_201806059\_20181212\_AE-WCR\_18\_1
- Automation Engine 18.0.1: HF\_201811018\_20181212\_AE-WCR\_18\_1

Older versions of Automation Engine are not officially supported.

The **User Name** and **Password** fields then become available. This is where the Automation Engine Approval Client configuration in WebCenter is used.

Create a user name and password combination in WebCenter, then enter that same (case-sensitive) user name and password in the appropriate fields in Automation Engine **Configure**.

Click **Check Connection** to test the connection.



**Important:** You must be using the Pilot on the Automation Engine server itself to run this check.

A dialog box appears, proving that the connection works and displaying the WebCenter version number.

8. If the **Connect to JDF Processor** area is visible, leave **JMF** selected in it.

9. Click **Check** to test the connection.

An **Info** dialog appears, reporting that the connection is OK. Click **OK**.

If this dialog does not appear, check your settings.

10. On the left of the **Configure** window, scroll down and select the new **WebCenter1** entry under **WebCenter Sites**.

11. Click **File > Rename** and enter a descriptive name for your WebCenter site.

12. Click **File > Save** to save the settings.

### Configure the Job Web Page URLs

The Job Web Page enables you to go to your WebCenter project from within your Automation Engine Job.

1. Launch the Automation Engine Pilot and connect to the production server with an administrator account.

2. Choose **Tools > Configure**.

3. In the **Configure** window, select **Jobs > Job Web Page** in the left pane.

4. In the **Address** field, enter the URL of the WebCenter site (for example: `http://pacwebserver/WebCenter`).

5. Still in the **Address** field, append this text to the end of the URL: `/projdetails.jsp?projectName=`



**Attention:** This is case-sensitive; enter it exactly as written. Do not include a space or period at the end.

6. Click **+ [ ] InsertSmartNames**.

7. In the **SmartNames** column, scroll down and click **JobName**.

8. Click **Insert** to append it to the URL in the **Address** field.

9. Click **Close** to return to the **Configure** window.

The result should resemble `http://pacwebserver/WebCenter/projdetails.jsp?projectName=[JobName]` with `[JobName]` in green.

10. Click **File > Save** to save the settings.

You can now right-click your Job folder in the Automation Engine Pilot and select **Go to Job Web Page**; this opens the WebCenter project associated with your Job in a browser.

### Set Up the Publish on WebCenter Ticket

The **Publish on WebCenter** ticket in Automation Engine creates output and uploads the resulting files to WebCenter.

For more details, please see the Automation Engine documentation.

1. Launch the Automation Engine Pilot and connect to the production server with an administrator account.
2. Click the **Tickets** view.
3. Locate the **Publish on WebCenter** default ticket, right-click it and click **Duplicate...**
4. In the **Save As** pop-up that opens, replace the word `Default` in the **Save As** field with a meaningful name (for example the name of your WebCenter site).
5. In the **Scope** area, select the **Global** option.

If you have no blue job folders containing files, you are not prompted to select the scope.

6. Click **Save**. The new ticket should appear in the list.
7. Double-click your new **Publish on WebCenter** ticket to change its settings.
8. On the **Destination** tab, define where you want to publish your file:
  - a) In the **Site** list, select your desired WebCenter site.
  - b) In the **Project** field, enter the **JobName** SmartName so that the files are published to the WebCenter project corresponding to your Automation Engine job.



**Note:**

- The project does not have to exist in WebCenter at upload time. If the project does not exist, it will be created. In this case, the person that does the upload from Automation Engine needs to be **Project Manager** in WebCenter! Otherwise the upload will fail.
- If your main goal is not to upload files but to create WebCenter Projects through Automation Engine, we recommend you use the **Create or Modify WebCenter Project** ticket instead (see the Automation Engine documentation for more information).

- c) Leave the **Folder** and **Project Template** fields blank unless you know the exact names of the folder and project template you want to use for every new Project.

In this case, enter them as appropriate; all new WebCenter Projects created with this ticket will use these values.



**Note:**

- The **Project Template** field refers to a template in WebCenter, not Automation Engine.
- You can only use templates that are visible by the WebCenter user performing the upload (see sub-step f).

- d) Enter a **Document Name** if you want your published document to have a name different from the input file name.



**Note:** If the document already exists, the task will create a new version of that document. If it exists but is in a different folder, the task will fail.

- e) Enter a **Document Description** if desired; this description will be available in WebCenter as a **Version Comment**.
- f) Leave the **User Name** and **Password** fields blank unless there is a specific (and valid!) WebCenter user who will own each document revision published using this ticket; in that case, enter the appropriate information.

If you leave these fields blank, anyone using the ticket will have to supply a valid user name and password each time it is used.

**9.** On the **Publish** tab:

- a) Leave **Prepare for viewing and annotating** and **Make available for download** selected.
- b) In the **Allow Downloading in WebCenter** area, choose the kind of files to upload to WebCenter.
- **Input files** are the original files themselves.
  - **PDF files for proofing** are proxy files created by using the selected ticket. If you choose PDF files for proofing, leave the default **Create SoftProof for WebCenter** ticket selected, or choose another ticket if desired. Proxy files uploaded in this manner will have **Download PDF for printing** as an option in WebCenter.

The combination of preparing for viewing but not making available for download is intended for Graphics files that only need Approval.

**10.** On the **Approval** tab, deselect **Start the Approval Cycle**.

**11.** Click **Save**. Then click **Yes** to confirm overwriting the ticket.

## 2.10.7. Expose WebCenter to the Internet

Exposing WebCenter to the Internet is the responsibility of your local IT department. Esko cannot do this for you.

### Register a Domain Name

Register and pay for a domain name, such as `www.esko.com`, to allow internet users to navigate to your WebCenter site.

Once you have registered the domain name, your company is the only one authorized to use that specific domain name for a certain period.

- Contact a proper authority (VeriSign, GoDaddy, etc) and purchase a domain name.

### Contact Your ISP to Set Up an A Record

The purpose of an **A record** is to associate your domain name to your public firewall/router, so web traffic (HTTP and HTTPS) going to the domain name is routed to that public firewall/router.

Think of this as telling the Postman how to get to your mailbox.



**Note:** It takes several days for the A record information to propagate around the world.

1. Identify the public IP Address of your router/firewall.  
This is the hardware appliance your Internet connection is plugged into (i.e. T1, DSL).  
For example: My T1 is plugged into a firewall with 66.55.44.33 as public IP address.
2. Contact your ISP and ask them to add an 'A' Record (Address record) to the global DNS (Domain Name Servers), associating your domain name and your router/firewall public IP address.
3. Verify that you can ping your domain name from computers inside and outside your LAN.
4. Ensure the reply you get contains the correct IP address for your public firewall/router.

#### Example

MCI is your ISP. You contact MCI and ask them to add an A record for your new domain name, www.esko.com, to forward HTTP and HTTPS traffic to your public firewall IP address of 66.55.44.33.

After about 3 days or so, this record has been propagated across the world. If someone in Thailand 'pings' the domain name www.esko.com, he/she should receive a reply with the IP address of 66.55.44.33.

### Move the Web Server Inside the Demilitarized Zone (DMZ)

You should physically arrange the network devices so that the Web Server is in a proper DMZ architecture (between two firewalls or plugged into a DMZ port of the public router/firewall).

1. Configure Firewall 1 (public router/firewall):
  - a) Allowed to route traffic to Web Server inside DMZ for HTTP and HTTPS.
  - b) Default ports 80 (HTTP) and 443 (HTTPS).
2. Configure Firewall 2 (gatekeeper for private network):
  - a) Allowed to route traffic on specific ports to WebCenter's Application Server.
  - b) Default ports 1099, 2500, 4444.



**Note:** You can change the default port numbers used at any time—to do this, modify the IIS settings and the WebCenter configuration files on both the Web Server and the Application Server to reflect these custom port numbers.

### Configure IIS to Receive Traffic

Web traffic is delivered to the public firewall because of the A record. That firewall then forwards the web traffic to the Web Server inside the DMZ.

The Web Server application (IIS) needs to be configured to pick up this traffic for processing. To do this, the Web Server must be assigned a static Private IP Address.

1. On the Web Server, click **Start > Run** and type `inetmgr`. Then click **OK** to start **Internet Information Services (IIS) Manager**.
2. Expand the **Web Site** node.
3. Right-click the **Web Site** node and choose **Properties**.
4. Click the Web Site tab and verify that the **IP Address** is correct (or use the drop down list to change it).
5. In the **TCP Port** field, ensure you are using the correct port for HTTP traffic; the default port is 80 (this needs to match your firewall rules).
6. Close IIS Manager.

## 2.11. Deploying WebCenter

---

WebCenter uses a three-tier installation framework to facilitate in-house development and configuration before deploying it in production form. The three tiers are the **Installation** version, the **Development** version, and the **Production** version.

### Deployment Workflow

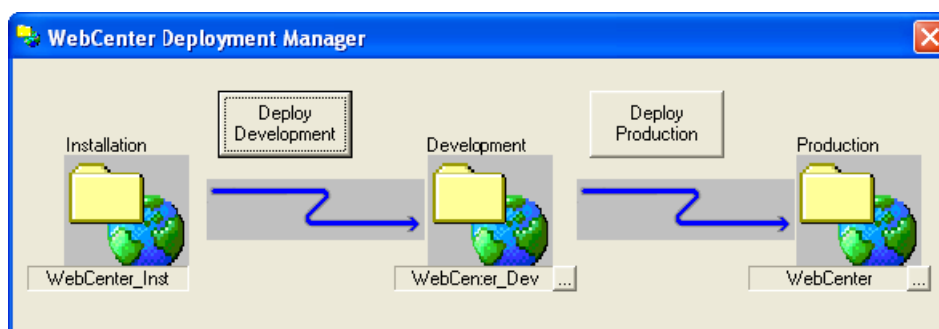
The intended workflow is to install WebCenter, deploy it to Development, modify the Development version, and then when you are satisfied, deploy the Development version to Production.

As time goes by, you can keep modifying the Development version as desired without affecting the Production version. When you are satisfied with the changes made to the Development version, you can deploy it to Production.

At the time of deployment, the custom directory is not overwritten if it already exists in a target instance, so `customizationConfig.xml` and any other customized files in the custom directory are not changed. But when a new instance is created by deployment, the custom directory is created with its default configuration.

### The WebCenter Deployment Manager

The **WebCenter Deployment Manager**, located in **Start > Programs > WebCenter**, manages the deployment process. If there is more than one website on the Web Server, choose the website with which the **WebCenter Deployment Manager** will work and click **OK**.



To further develop the installed version, use the WebCenter Deployment Manager:

- If you want to change the name of the development version, click the ... button in the Development area, and specify the new name of the development version. When you have changed the name, click **Deploy Development**.

Web authors can then modify the site at `http://WebServer_name/WebCenter_Dev` (or whatever name you chose earlier), while normal users can still work using the site at `http://WebServer_name/WebCenter_Inst`.

- Once the developed version is ready for production use, use the WebCenter Deployment Manager again.

If you want to change the name and location of the production version, click the ... button in the Production area and enter the new name. Then, click **Deploy Production**.

The site in WebCenter\_Dev will be copied to WebCenter. Production use starts by users pointing their browsers to `http://WebServer_name/WebCenter`.

**Note:**

You can have multiple development and deployment versions of WebCenter by changing the names for each deployment, e.g. DEV1, DEV\_Other, WebCenter\_Prod1, and so forth.

Also, the deployment name is not case sensitive, so for example WebCenter\_Dev and WebCenter\_dev are considered to be the same deployment instances.

## 2.12. Localizing WebCenter

---

Localization is the process of making a program ready to run anywhere in the world.

It encompasses modifying the display language, the way units are displayed, decimal separators, time and date formats, and currency format to match the local user preferences.

### 2.12.1. Understanding Localization in WebCenter

WebCenter uses references to separate language files (text strings files) instead of using hard-coded words. WebCenter ships with a variety of language files. Additionally, the text strings files can be translated into any language.

Each WebCenter user can change to a different language in **My WebCenter > My Preferences**.

The default language can be changed in **General Preferences** at any time by any WebCenter user who is a member of the Admins group.

### 2.12.2. How to Install Custom Translations

The language files are in the `languages` subdirectory of the WebCenter installation on the Web Server, such as `\Artios\WebCenter\WebServer\tomcat\webapps\\languages`.

They are named `wcstrings_xx.xml` where `xx` is a two-letter code for the language, for example `en` for English, `fr` for French, and `de` for German.

1. Copy one of the existing language files, and rename the copy changing the two-letter language code to the new language code.



**Note:** The language code must match the official list of two-letter ISO 639-1 codes at <http://www.loc.gov/standards/iso639-2/englangn.html>. For example, a Danish language word strings file would be named `wcstrings_da.xml`.

2. Translate the strings in the file.
3. On the Web Server, open `\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\config\config.xml` in a text editor or an XML editor. In the **Languages** section of the file, add a key for the new language, for example `<Language key="da"/>` for a Danish translation.
4. Put the translated language file in the languages subdirectory of the WebCenter installation.
5. Open every other `wcstrings_xx.xml` file and add a `<NLanguage_xx>Language</NLanguage_xx>` string after the strings for the existing languages.

For example, add the string `<NLanguage_da>Danish</NLanguage_da>` to install a Danish strings file, substituting the word for Danish in the appropriate language for the string file.

6. If the chosen language is a multi-byte language (such as Japanese, Chinese, or Thai), log on to the Application Server and edit `\Artios\WebCenter\config\appconfig.xml`. Change the value in the `index_lang` field to the appropriate language code that is listed in the comment below the field, and save the file.
7. Restart the Web Server to see the changes.

## 2.13. The Help System

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### Old style dynamic help system

WebCenter uses a dynamic help system that checks for the existence of specifically-named XSL files on the Web Server in `\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\help`.

A Help link will appear in the menu of the page that has the same name as an XSL file in this directory. The content of a Help file can be anything provided it is in XSL and the file has an `.XSL` extension.



**Note:** Esko recommends the use of `xmlspy`® for authoring WebCenter Help XSL files. It is available from <http://www.xmlspy.com>. There are also shareware and freeware XSL editors available. You could also modify the sample provided using a text editor such as Notepad; do not use WordPad as it inserts its own formatting codes.

- To change the Webmaster contact name and e-mail address displayed on the login help page, edit `login.xml`.
- If using foreign-language files, append `_xx` (where `xx` is the code for the language) to the end of the file name before the extension, such as `login_fr.xml` for a French help file for the login page.

When determining if a Help link should be on a page, WebCenter looks for a localized Help file, and then for an English one if a localized one is not found. If neither exist, WebCenter does not put a Help link on the page.

### New style dynamic help system linked to [help.esko.com](http://help.esko.com)

Since WebCenter 12.1, a lot of pages (mostly in the admin section) use a dynamic help system linked to help.esko.com. When a user clicks the help icon, context-aware help information is displayed. By default the documentation from help.esko.com is shown, but this behavior is customizable.

It is possible to customize a specific help topic, or to link a subset of help topics to a specific manual or page. The behavior of the help functionality can be configured in the custom folder on the Web Server.

Each help link has a topic (i.e. common/wc/reference/re\_task ). The topic of a help link can be found by looking at the link address: a help icon always links to help.jsp?topic={TOPIC}&lang={LANG}.

For customization, the following options are available:

- By placing html files in the correct location in the custom folder on the Web Server: Customization for help pages is done in the custom/help directory. Customization can be done per language (by adding files to custom/help/{LANG} directory (where {LANG} is the abbreviation for the language in WebCenter i.e. custom/help/en for English). Customization can also be done for all languages. This is done by putting files in custom/help/all.
- By adding a helpconfig.xml file with specific settings to the custom/help folder on the Web Server: This file can contain a set of rules that will be applied when no specific custom topic is found. In the custom help file you define rules that match topic names. When a rule matches, the rule is applied by sending the user to the correct location, defined in the rule.



**Note:**

The system first searches in the language specific custom folder for a customized html file, if no html file is found for a specific language, it will search in the custom/help/all folder for that topic.

## 2.14. Upgrading WebCenter

---

You can upgrade directly to WebCenter 22.11 from older versions.

If you have an older version than 12.0, you will need to first upgrade to WebCenter 10.1 or 10.2, make sure it is running correctly, then upgrade to WebCenter 22.11.



**Note:** The long-deprecated lists backed directly by Excel files stored on the web server are no longer supported as of WebCenter 22.11. If the customers are still using this type of list, it is highly recommended to migrate to the database-backed lists before upgrading to WebCenter 22.11.

### 2.14.1. Forced System Reboot during Upgrade

When updating WebCenter, a full re-installation is required. You need to remove the existing installation before installing a new version.

After uninstalling, you have to reboot to be able to proceed with a new [Installation](#) process. This is enforced before installing another version.





**Note:** Reboot pending state of a system can be activated not only by WebCenter but also by completed Windows updates or other application installation operations.

## 2.14.2. Configuration Retained During Upgrade

### Retained Configuration Values during Upgrade

WebCenter Installer will store specific configuration values of the existing installation when it is being uninstalled. These configuration values will be used during the upgrade.

The Installer input fields will use these stored values for the new installation. You only have to verify if this pre-populated data during the installation process.

The following values are stored by the system:

- Web Server
  - Application Server Hostname
- Application Server
  - Web Server Hostname
  - Database Server Hostname
  - Database type (MS SQL or Oracle)
  - Database Instance name (MS SQL only, default instance can be used in which case this setting is empty)
  - Database connection SID (Oracle only)
  - SA database User password (default password)



**Note:**

1. The password value is not retained, if a custom password was used during the previous installation. You will have to type in this password in this field.
2. Settings made for weekend days other than Saturday and Sunday, has to be made again in Application server. Refer to the steps here.

- FileStore folder path(s)(UNC path is allowed)



**Note:** As this mechanism includes persistence of custom FileStore path values, the `appconfig.xml` configuration file does not have to be modified after re-installing a new WebCenter version.

- Installation Choice: Simple or Advanced
  - If Advanced Installation is selected, the following choices are retained:
    - Java Heap Space Size: Normal or Extra Large
    - View Server: Internal or External
    - Database (internal) User password: Default or Custom



**Note:** The password field is always left empty.

## 2.15. Prepare for the Upgrade

---

This describes how to upgrade from older versions of WebCenter to the latest build of WebCenter 22.11.



**Note:**

This procedure **applies to all upgrade installations** of WebCenter 22.11, even to "minor" updates between builds of the same version.



**Note:**

This procedure is fairly complex and involves direct manipulation of core application and database files.

Expert help is available to **perform the upgrade for you at a minimal cost**: contact your local Esko Customer Services division for a quote and scheduling.



**Note:** When upgrading to WebCenter 22.11 from WebCenter 21.03 or earlier, make sure to run the Cleanup Tool before initiating the upgrade. The Cleanup Tool can be run from WebCenter via the Admin > Configuration > Cleanup Tool. Once the Cleanup Tool has finished, proceed with the Upgrade.

### 2.15.1. Prerequisites for the Upgrade

#### Installation Media and Licenses

Make sure you have the following at hand before proceeding:

**Media**

- WebCenter 22.11 DVD
- Automation Engine 22.11 DVD

**Licenses**

WebCenter 22.X Network License

#### Information Needed

Make sure you collect the following information:

- The location of the FileStore (you can find this information in C:\Artios\WebCenter\Config\appconfig.xml)
- The database engine to use (Microsoft SQL Server 2012/2014/2016/2017/2019 or Oracle 19c/21c).
- The name of the Database Server, the Oracle Database Identifier (SID) if using an Oracle database, and the database administrator password (sys password).
- The name and location of the WebCenter4\_0 database instance (you can find this information in <DRIVE>:\Esko\Artios\WebCenter\ApplicationServer\Jboss\server\default\configuration\standalone.xml. Use your Esko customer login and password for activating licenses.
- The IP address or name of the LDAP server and the port used for the secure connection (typically 636).

**If you are upgrading from 16.1.1 or newer to 22.11**

WebCenter Installer will store specific configuration values of the existing installation when it is being uninstalled. These configuration values will be used during the upgrade.

The Installer input fields will use these stored values for the new installation. You only have to verify if this pre-populated data during the installation process.

The following values are stored by the system:

- Web Server
  - Application Server Hostname
- Application Server
  - Web Server Hostname
  - Database Server Hostname
  - Database type (MS SQL or Oracle)
  - Database Instance name (MS SQL only, default instance can be used in which case this setting is empty)
  - Database connection SID (Oracle only)
  - SA database User password (default password)



**Note:**

1. The password value is not retained, if a custom password was used during the previous installation. You will have to type in this password in this field.
2. Settings made for weekend days other than Saturday and Sunday, has to be made again in Application server. Refer to the steps here.

- FileStore folder path(s)(UNC path is allowed)



**Note:** As this mechanism includes persistence of custom FileStore path values, the `appconfig.xml` configuration file does not have to be modified after re-installing a new WebCenter version.

- Installation Choice: Simple or Advanced
  - If Advanced Installation is selected, the following choices are retained:
    - Java Heap Space Size: Normal or Extra Large
    - View Server: Internal or External
    - Database (internal) User password: Default or Custom



**Note:** The password field is always left empty.

**2.15.2. Prepare for the Upgrade on the Application Server**

1. Copy the following onto the Application Server:
  - WebCenter 22.11 DVD
  - Automation Engine 22.11 DVD
  - ArtiosCAD en license

- WebCenter 22 license (plus optional module licenses)
  - OBGE (On Board Graphics Engine) license
2. Back up:
    - the FileStore
    - the WebCenter4\_0 database
    - the \Artios\WebCenter folder
  
    - the \Esko\Artios\WebCenter folder
  
    - any E-mail Notification customizations that may be stored in \WebCenter\ApplicationServer\EmailNotifications\Custom
  
    - any Auto Translation Service customizations that may be stored in \WebCenter\ApplicationServer>wildfly\modules\com\esko\webcenter\translator\main\translator-service-1.0.jar
  
    - all other non-standard customizations you may have implemented outside of the custom folders
  3. Make a restore point for the OBGE.
  4. Make a backup of the server software configuration.  
For detailed instructions on step 3 and 4, please refer to the [Automation Engine 21.03 Installation Manual](#).

### 2.15.3. Prepare for the Upgrade on the Web Server

1. Copy the following onto the Web Server:
  - WebCenter 22.11 DVD
2. Back up \Artios\WebCenter and any non-standard customizations you have implemented outside of the WebCenter instances.

## 2.16. Upgrade WebCenter

---

### 2.16.1. Remove WebCenter

1. On the Application Server:
  - a) Backup the whole.\WebCenter\ApplicationServer folder (Make a COPY, DON'T MOVE IT) and backup the following:
    - Filestore
    - Email configuration (if you upgrade from WebCenter 10.2.x or older)
  - b) Uninstalled the previously installed version of WebCenter.

- c) Delete the WebCenter\ApplicationServer folder with all content.
- d) Now **REBOOT**.



**Note:** Take care not to remove the FileStore if it is inside a WebCenter folder!

2. On the Web Server:
  - a) Backup the whole..\WebCenter\ApplicationServer folder (Make a COPY, DON'T MOVE IT).
  - b) Uninstalled the previously installed version of WebCenter and **REBOOT**.
  - c) In case you are upgrading from a version 16.x or older, remove all WebCenter instances in IIS on the Web Server.
  - d) Remove all WebCenter instances in the installation by deleting all sub-folders in ..\WebCenter\WebServer\tomcat\webapps.

## 2.16.2. Install WebCenter

1. On the Application Server, update the older version of ArtiosCAD Enterprise to the latest version of ArtiosCAD Enterprise, choosing the options described in [Install ArtiosCAD Enterprise on the Application Server](#) on page 31 and the **Use the default configuration** upgrade option.
2. Upgrade the license component using the Automation Engine 22.11 DVD:
  - a) Insert the **Automation Engine 22.11 DVD**.
 

If the DVD does not auto-start, double-click `setup.exe` in its root folder.
  - b) In the window that opens, click **English**.
  - c) Click either:
    - **Software Installation** in the main menu on the left of the window,
    - **Proceed to the installation >>** at the bottom of the window.
  - d) Click **Install** on the next page.
  - e) On the **Instructions** page, click **Run the Automation Engine System Readiness Check**.
 

At the end of the Readiness Check, read the resulting messages carefully. If the Readiness Check resulted in a problem, correct it before proceeding. Click **Exit** in the **Automation Engine System Readiness Check** dialog when this is done.
  - f) Click **Install the License Server Components**.
  - g) Click **Install the System Controller 1.0** and follow the instructions of the installation wizard.
3. [Activate the Licenses](#) on page 33.
4. Uninstall the old version of ArtiosCAD Enterprise.
5. Install WebCenter 22.11, using the English language installer, on the Application Server and on the Web Server, making use of the existing FileStore location and WebCenter4\_0 database location.



**Note:** The installers in other languages should not be used, until further notice.

See [Installing WebCenter](#) on page 29 for more information on the installation procedure.

6. [Install Certificates for LDAPS on the Application Server](#) on page 63.
7. When the upgrade installation is completed, the search crawler needs to be updated. This is to ensure that the search results are up to date or else may result in incomplete search results. To

rebuild Search Crawler, Go to **Configuration > Search Crawler Set up** and click on **Rebuild Index**. This operation can take several hours depending on the number of projects, tasks, document (versions) present. Rebuilding the search index has a serious performance impact, and it is advised to run this over the weekend. Search results will be incomplete as long as the index is being rebuild. This is to ensure that the search results are upto date and complete.

### 2.16.3. Upgrade the OBGE



**Note:**

- The OBGE must have the same or a later version than the Automation Engine production server.
- Make sure that you do not update any CADx component while updating the OBGE! CADx must only be updated by the ArtiosCAD Enterprise installer.

Upgrade the OBGE (On-Board Graphic Engine) to Automation Engine 22.11 :

1. Upgrade the prerequisite components:
  - a) Insert the **Automation Engine** 22.11 DVD.  
If the DVD does not auto-start, double-click `setup.exe` in its root folder.
  - b) In the window that opens, click **English**.
  - c) Click either:
    - **Software Installation** in the main menu on the left of the window,
    - **Proceed to the installation >>** at the bottom of the window.
  - d) Click **Install** on the next page.
  - e) Click **Install the prerequisite components** and follow the instructions of the installation wizard.



**Note:** Remember to not update any CADx component!

The prerequisite components are now upgraded.

2. Test the OBGE and check its configuration (Hot Folder and container, see [Configure the OBGE](#) on page 45 for details).

### 2.16.4. Configure WebCenter

1. If you had WebCenter customizations:
  - a) Reapply the email notification customization that you backed up in your `custom` folder.  
Mentions of an older version of WebCenter are automatically updated to "WebCenter 14".
  - b) Apply any standard customizations you saved earlier to your new WebCenter instance(s).
  - c) Redo any other non-standard customization that you may have had.  
See the WebCenter Customization guide for more information.



**Attention:**

- Do NOT copy the files as the XML structure might be different and you might break it.
- Do not customize the **Default** instance of WebCenter as if it doesn't work anymore you will have to completely reinstall it!

2. In case running the database scripts automatically (preferred) is switched off, run the WebCenter 14 database scripts.

See [Run the Database Schema Scripts on the Application Server](#) on page 37 for more information on the database schema scripts.

3. Log on the WebCenter web interface and change the administrator password (see [Log On to WebCenter and Change the Admin Password](#)).

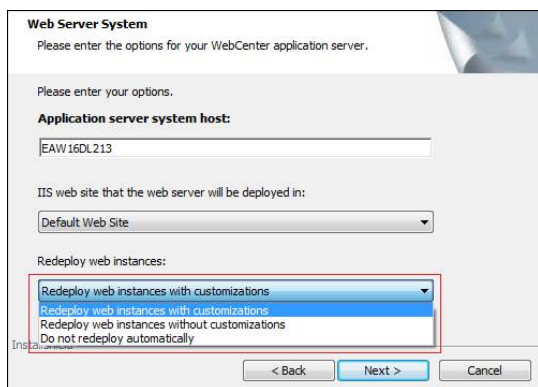
4. Deploy new WebCenter instances as desired.

See [Deploying WebCenter](#) on page 71 for more information.

The upgrade is complete.

### 2.16.5. Additional step when you upgrade from 18 to later versions

When performing an upgrade to installation of a WebCenter 18.0 or later, if the Web server is on the same host as the installer, then the following options are available if the custom folders is backed up:



- **Redeploy web instances with customizations:** This is the default option that redeploys the custom instances marked during the previous uninstall procedure as well as the custom folders backup.
- **Redeploy web instances without customizations:** Redeploys the custom instances marked during the previous uninstall procedure but will not retain the backed-up custom folders.
- **Do not redeploy automatically:** Will not redeploy any of the custom instances and their custom folder backups.

## 2.17. Uninstalling WebCenter

1. Log on to the Web Server as a member of the local Administrators group.
2. Stop the **IIS Admin** service.

3. Backup all deployed sites within `\Artios\WebCenter\WebServer\Tomcat\webapps` in case they are needed in the future.
4. In WebCenter 18.0 or later, Web server installer records the names of all the custom WebCenter instances while backing up the custom folder where all Web server based customizations of a given instance including the default *WebCenter\_Inst* are stored.

*Common App Data* root folder is used to store the customization files backup on the target Web server host. The default path on most Windows server would be `C:\ProgramData\Esko\WebCenter\WebInstanceCustomData`.

This folder is the root and each WebCenter web instance custom folder files that was backed up is stored under a subfolder that takes the name of the appropriate instance.

5. Use the **Add/Remove Programs** applet in **Control Panel** to remove WebCenter.
6. Manually delete all subdirectories under `\Artios\WebCenter`.
7. Log on to the Application Server as a member of the local Administrators group.
8. Back up `\Artios\WebCenter\Filestore` and all its subdirectories in case they are needed in the future.
9. Use the **Add/Remove Programs** applet in **Control Panel** to remove WebCenter.
10. Manually delete all subdirectories under `\Artios\WebCenter` for the Automation Engine Prerequisites

If WebCenter is uninstalled with the intention of installing a newer version (and keeping an existing database), do NOT delete the files in `\Artios\WebCenter` as they contain information needed for the new version to run with the existing admin password.

11. If the OBGE is installed, remove all the Esko products using the **Add/Remove Programs** applet in **Control Panel**. Select all products except the FLEXIm flexid drivers.
12. Remove ArtiosCAD Enterprise by using the **Add/Remove Programs** applet in **Control Panel**. Once all the products are removed, WebCenter should be completely removed.
13. Reboot your machine. *If you need to install another version, this is a required step.*



## 3. Administration Guide

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### 3.1. Copyright Notice

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## 3.2. What's New in WebCenter 22.11

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WebCenter 22.11 is a WebCenter release including new and much improved functionality in the following areas:

### User Interface and Experience

One of WebCenter's most valuable features is the high level of UI/UX Configurability. Esko is redesigning the UI to make it easier than ever to build, deploy and maintain the most modern UI we've ever created. Over multiple releases we are adding features applicable to everyone from the casual user to the WebCenter expert.

- Update to Latest Version

Old feature, new home. The "Update to the latest version" button available in forms is now available in the new UI framework.

- Duplicate

Save time by duplicating another document in a single click. A duplicate button can be configured in a document row to quickly create another document. The file and all attributes are copied during this operation. Very useful, especially when creating multi-SKU specifications or working with content statements in PCM.

### WebCenter Cloud

The transformation of WebCenter infrastructure and deployment to take advantage of cloud tools and capabilities. These advantages will lead to an increase in performance, scalability and the speed of innovation.

- Cloud Viewer Available for all SaaS Customers
  - The Cloud Viewer with infinite zoom and Quality Control tools is available to all SaaS customers running 22.11+ by selecting “Deep Zoom Mode” on top of the viewer.
  - Granular access control: Administrators can control Cloud Viewer access for individual roles and/or users.
  - Storage Locations can be configured for both NTFS and Amazon S3 storage locations. The ADMIN user has permissions to set specific storage locations for user generated assets and system assets. Multiple Locations can be configured for different categories. The migration of documents to new locations can be done on a live system using the built-in migration tool directly in the User Interface.



**Note:** For SaaS Customers, storage locations are automatically configured and managed.

### Configuration Simplification

With so many features added to WebCenter every year, the amount of options and configurations continues to grow. The simplification efforts reduce the time required to configure WebCenter’s most powerful features. Over several releases, the functionality will enable rapid completion and even some automation of previously slow and fully manual tasks. Entire categories of functionality are being re-designed with efficiency and ease of use in mind.

- Call External API from within the workflow canvas
 

Integrations just got easier to configure! The JavaScript node in the workflow canvas can now call external API’s! Greatly increasing integration capabilities and removing other more difficult methods for integration execution.
- Restrict Value of attributes via another attribute
  - Simplify the user experience by limiting the number of dropdown options users see by specifically showing only relevant values. Accomplished by a new configuration allowing values to be filtered/restricted to only those values selected in another attribute. (i.e. restrict task options by allowing only selected project values)
  - Also works on Reference properties
- Bearer token authentication added to external API connections

More authentication options means more compatibility with your current way of working with and authenticating to other systems.

### Scalability and Performance

Ensuring WebCenter is scalable and performant under heavy usage volume is important for the largest global companies and is an important priority for Esko. This is why the “Scalability & Performance” is a permanent initiative with improvements added in almost every release.

- Improved Page Loading Experience
  - Better User Experience when loading pages and page components.
  - Users now see template grid before detailed results.
- Increased Performance on bulk content copy
  - Faster performance when copying content documents in bulk.

- Template rows are shown before details are loaded.
- Under the hood improvements to increase speed.

### Value For Maintenance

WebCenter has a rich history of new features added to each version release. The “Value for Maintenance” or VFM Initiative, collects feedback from our customers to make these features even better, or to create new features all together.

- Improved List Look-up Feature

List lookup just got more powerful! The list lookup feature from Workflow, rule engine, JavaScript API and Workflow parameter is now able to return results from multiple column lists.

- Chili Integration Improvements

WebCenter customers using Chili Cloud version, can now integrate with WebCenter. Previously only on-prem Chili versions were able to integrate.

- Improved Options for Approving Documents Outside the Viewer

Additional security options for allowing approval of documents while not in the viewer. Instead of a binary option, the choices now include “All Documents” “Non-viewable Documents only” and “Do not allow”

### Packaging Content Management

Improvements to the dashboard UI framework allow users to work more efficiently by provided a focused experience. This release also includes new support for CHILL's cloud service.

- Interface Improvements

This new set of enhancements now allows PCM users to work completely within a single dashboard.

- Language context for dashboards

Simplifies the interface by focusing on languages relevant to the project.

- Allow text statement version updates in dashboard

Editors can now update content elements to new versions within the dashboard.

- Improve performance for large content sheets

Large content sheets now load 4x faster than the previous version.

- Chili Cloud support

Connect to the Chili Cloud service to automatically populate artwork templates with approved content.

### Structured Content Management

Make users more efficient by providing them the ability to better manage content, streamline the approval process, and have better access to supporting information.

- Allow copying of artwork tags between maps

The relationship between how content is prepared for submission and placed on the artwork can now be reused across similar maps and templates.

- Include changes from the previous version when preparing submissions

Health Authority submissions can now contain track changes-like markups to better meet regulatory agency needs.

- Continuing to improve and simplify the user experience

We have made significant updates to improve the Editor and Reviewer experience, including simplifying the interface and extending document history visibility to reviewers.

- Notify editors when source content has been updated  
Translators now have a visual indicator that source content has been changed, reducing the chance that a mistranslation will make it onto artwork and regulatory output.
- Allow users to see source content when editing a translation  
Translators can more easily reference the source content when working on translations.
- Support for wider variety of Word output formats  
Expanding the number of submission formats that are supported out of the box.

## 3.3. WebCenter Administration Basics

---

WebCenter installs with a minimal configuration because every installation has different needs. This guide explains as how to set up WebCenter and make it ready for use.

### 3.3.1. A Note on Web Browsers

Due to differences between the Web browsers, some configuration issues in Firefox and Safari require extra action in order for WebCenter to function properly. Anyone using WebCenter with either of these browsers on any platform should consider performing these configuration changes.

#### **Mozilla Firefox**

Refreshing pages may not get the most current data from the WebCenter Web server. In order to ensure the most current data is seen, caching must be disabled, or you must press ctrl-r on any suspect pages to forcibly reload them.

To disable caching, do the following:

1. Log in and start Firefox.
2. In the Address field, type about:config and press enter.
3. Scroll down to the network.http.use-cache entry and double-click it so that its value changes from true to false.
4. Restart Firefox.

#### **Safari**





When using Safari, the built-in browser for Apple Macintosh computers running OS X, there is no way to configure caching. When using the Back button, click Refresh to ensure you see the most current data.

### 3.3.2. Understanding the WebCenter Page Layout

#### **Header**

The top right of the WebCenter page always shows:

- the name of the current user,

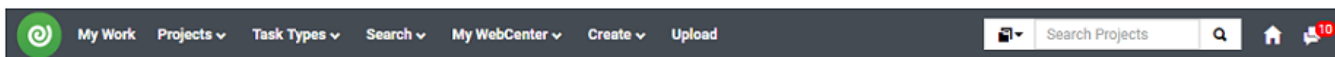
- a  icon to go back to the user's start page,
- a  Discussions icon which indicates the unread messages and redirect to My Discussions. You can view all discussions related to Project or Document or Tasks that you are involved in. For more details, refer to [Discussions in WebCenter](#) on page 827
- the Cart ,
- Avatar  icon displays the user initials (first letter of first name and last name), or an image, if any is uploaded in the User page.



- a link to the WebCenter **Welcome** page,
- **Admin** (if the user is a member of the Admins group),
- **Contact**,
- **Logout**.

### Top Menu Bar

By default, the top menu bar contains the following menus: **My Work**, **Projects**, **Task Types**, **Search**, **My WebCenter**, **Create** (if you are a Project Manager) and **Upload** (see [The Default WebCenter Menus](#) on page 566 for more details). An administrator can customize the menus.

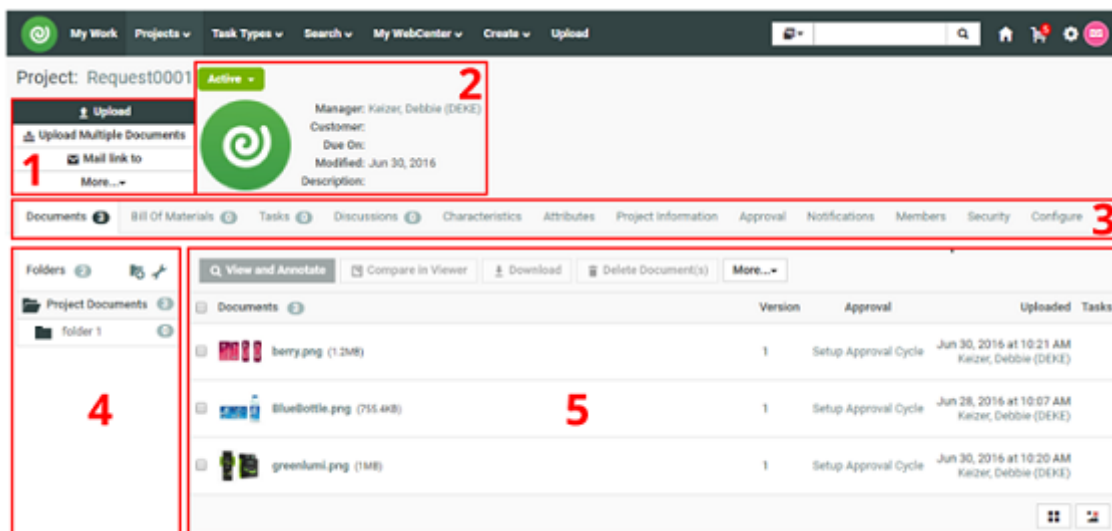


If you have the optional Task Management module and the **User Can Create Task Type** permission, **Task Types** also appears in the top menu bar.

### Documents Pages

Below is a sample of project's **Documents** page, in grid layout, for a user who is a Project Manager.

**Area 1** is the project actions area, allowing you to perform actions on the whole project (for example, mail a link to the project to a reviewer, add the project to your favorite projects...)



- **Area 2** is the Project Details area, containing the project icon, the name and description of the project, the project status...
- **Area 3** shows links to the project pages. For example, click **Members** to view the project members. The page you are on is shown in bold.
- **Areas 4** and **5** are part of the content pane, that changes depending on the project page you are on. Here, on the **Documents** page, they show the project folders and documents.
- **Area 4** is the Folders pane, showing the projects folders. Click a folder to see the documents it contains.
- **Area 5** is the document pane, that can show the documents in a list or grid view, with or without thumbnails.

**Notes**

- To act on many documents at once, select their check boxes and then choose an action in the **Actions** menu.
- To select all documents in the current folder, select the check box before the **Documents** header.
- To switch to a list layout, click **Show as List**.
- Hovering over a thumbnail shows a larger version of it in a pop-up window.

For Graphic documents viewable by the WebCenter Viewer, you can click the zoom icon to show an even larger thumbnail (500 x 500 pixels). This is applied to all Graphic documents on which you hover until the page is reloaded.

The pop-up window closes when you move the cursor off the thumbnail.

There is usually more than one way to accomplish a task by using a combination of menu entries, action menus, and clicking status messages. Many methods will lead to the same result.



**Note:** This layout is the default layout. However, your layout might be different depending on your customization.

### 3.3.3. Filtering Content

As more information is managed over time by WebCenter, some pages can potentially show large amounts of information. To reduce the time needed to show the page when it first loads, some pages have a filter.

To use the filter, enter a search string with an asterisk either before it, surrounding it, or after it in the **Search** field, and click . For example, on the **Companies** page, to only see those companies with the word Containers in their name, enter \*Containers\* and click .

When filtering users, use the last name of the user.

To show all the items, up to the truncation limit, click with nothing in the field.

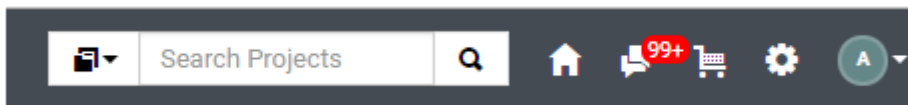


**Note:** The truncation limit prevents lists of thousands of items from impacting response time; if you know in advance that your search will return that many items, refine it with the filter. The truncation limit can be changed; contact Professional Services at your local Esko office for more information.

### 3.3.4. The Admin Menu

All administration is done initially by Admin, the administrative user who has full control over WebCenter.

The Admin user and members of the Admins group have the Admin button in the right side of the header.



Click the **Admin** button to go to the Admin menu. The **Users** page is shown by default.

To return to the normal WebCenter menus, click the **Exit Admin** button.

## 3.4. WebCenter Preferences

The **Preferences** menu in the Admin section of WebCenter allows you to set system-wide preferences in a number of categories:

- **General**



- [Password Preferences](#)
- [Security](#)
- [Document Types](#)
- [Notifications](#)
- [Menus](#)
- [My Work](#)
- **Customizations**
- [Reports](#)

### 3.4.1. General Preferences

Click **General** on the **Preferences** bar to set system-wide preferences.



**Note:** The individual users can override nearly all of these properties for themselves in **My WebCenter > My Preferences**. Those users who have changed these settings are not affected by later changes made to the same fields in **Admin > Preferences > General** by an administrator.

#### General

- **Language** sets the language used by the user interface.
- **Start Page** sets the page that appears when you log on. It could be either Dashboard, Document Search, My Favorites, My Locked Documents, My Preferences, My Profile, My Work, Projects, Project Search, Saved Search, Welcome page. If Dashboard or Saved Search is selected, a dropdown is shown to select either a My Work or Unspecified Dashboard or a Saved Search.
- **Default Project Page** sets the page that appears when clicking a project name. It could either be Project Dashboard, Documents Page, Attributes page, Tasks page, Bills of Materials page.



**Note:** When Dashboard is chosen as **Default Project Page** or **Start Page**, you can either choose from the existing dashboards or **Create New Dashboard**.

- **Default Document Page** sets the page that appears when clicking a document name. It could be either be History, Approval, Attributes or Details page.
- **Units** sets units for all measurements to either **Metric** (mm, cm, dm, m) or **Imperial** (in, ft, yd).
- **Thumbnails:** selecting **Show thumbnails** shows thumbnails in document lists by default.
- **Cart:** **Clear Cart on Logout** is always enabled by default. Disable this option if you want your users to access their **Cart** contents across sessions.

#### Project Lists

- **Show ... rows** sets the number of projects displayed in the List layout.

#### Document Lists

- **Default Layout** sets the default view for document lists: **Grid** or **List** layout.

- **Show in Grid** sets the number of documents displayed on a single page in the Grid layout (defined as a number of **Columns** and **Rows** in the grid).
- **Show in List** sets the number of documents displayed on a single page in the List layout (defined as a number of **Rows** in the list).

### Search Results - All

**Show in List** sets the number of documents displayed on a single page in the **Search** results List layout (defined as a number of **Rows** in the list).

**Show Cards** sets the number of individual document objects that are displayed as a table of document thumbnails on a single page in the Search Results.

You can choose to **Show date and time for Date Attributes/Specifications**. By default date attributes in Search Results will not show time information.

### Search Results - Documents

- **Default Layout** sets the default view for document **Search** results pages to **Grid**, **List** or **Cards** layout.
- **Show in Grid** sets the number of documents displayed on a single page in the Search results Grid layout. You can also specify the position of the **Thumbnail position** in the results as Top or Left.

### Search Results - Projects

- **Default Layout** sets the default view for project **Search** results pages to **Grid** or **List** layout.
- **Show in Grid** sets the number of projects displayed on a single page in the Search results Grid layout. You can also specify the position of the **Thumbnail position** in the results as Top or Left.

### Discussions

- **Discussions per Page** sets the number of discussion threads displayed per page on the **Discussions** pages.
- **Postings per Page** sets the number of discussion posts displayed per page on the **Discussions** page.

### Roles

**Invite Group Default** sets the system-wide default state of the **Invite Group** check box, available on the **Manage Roles** page and in the **Members** area of the Project Creation page (when creating a project based on a project/template that contains roles).

### Bill Of Materials

**Use Bill of Materials** enables the Bill of Materials functionality for the entire WebCenter system. See [Bill of Materials](#) on page 473 for more information.

### My Work Defaults

- **My Approvals Assignee Filter** sets what users view by default in the **My Approvals** section of their **My Work** page (approvals assigned to **Me**, **Me or Group I Am In** or **Group I Am In**).
- **My Tasks Assignee Filter** sets what users view by default in the **My Tasks** section of their **My Work** page (tasks assigned to **Me**, **Me or Group I Am In** or **Group I Am In**).

- **Non Started Tasks** sets whether users' **My Work** page displays tasks assigned to them that aren't started yet.

### Project Autaname Generation

Use the **Project Autaname Generation** settings to automatically generate project names.

These settings use a naming template (**Prefix**, **Suffix** and **Counter Length**) to define the automatically generated names.

Define **Prefix** and **Suffix** by selecting from **Smart Names** drop-down menu.



**Note:** Make sure to read the notes at the bottom of the page for restrictions. The building blocks are case-sensitive.

The **Counter Length** is a numerical field that gets incremented for each new Project using the same prefix. It is placed between the prefix and the suffix.

In the **Counter Length** field, enter the length of that incremental counter. For example, enter 5 for numbers that will be five digits long.

Select **Use Automatic Naming for Creation of Blank Projects** if you want to automatically generate the names of projects created from a blank project.

### Discussions

- **Discussion Counter** option is enabled by default. When enabled, the counter will display all the unread messages including the unread messages from private discussions within a project, where the PM / Admin users are also part of. This option only affects the global counter on the top menu bar.
- **Default Participants:** This is a radio button option. You can either choose
  - To start the discussion with everyone who has access to the current Project / Document/ Task
  - To restrict the option to have the default participant as the Discussion Creator.

### Other Preferences

- **Host URL** sets the URL at which the WebCenter site can be accessed. This is the URL used to send automatic email notifications.
- **Host URL for internal use** sets the URL at which internal components, like Automation Engine, can access the WebCenter site. Use this to go through the local network (using your WebCenter server's local computer name) instead of through the internet (using your WebCenter server's public IP or computer name).

You should use this if, due to your setup, the DNS doesn't know the WebCenter server's public name inside your Local Area Network.



**Note:** You can only use this when Automation Engine and WebCenter are on the same LAN.

If this is not filled in, Automation Engine will connect to WebCenter using the **Host URL**.

For both **Host URL** and **Host URL for internal use**, you can choose to use either **http://** or **https://**. Choose the protocol defined during the WebCenter installation.

### PDF Download Options

Admin user can set options to add some more information to the PDF documents when they are downloaded by selecting the required options.

- Add Approval information to downloaded PDF
- Show Approval information in landscape layout
- Prepend Approval Information
- Show User Company / Location in a separate column

You can also add the Project Attribute IDs and Document Attribute IDs of either Text or Date/Time attribute type in the respective fields, which are then displayed in the report when the document is downloaded.



**Note:** You may contact Esko Solution Architects for further details.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

### Viewer

- **Viewer Workspace:** Select any workspace from the dropdown or **Create new Workspace** by selecting the option. Select the gear icon to open the Workspace Configuration pop-up window and view the options available in workspace selected or to edit the configuration in the workspace.

You can choose to add or delete any tool or widget to the workspace or altogether delete the workspace itself.

- **Unregistered User Viewer Workspace:** A workspace is configured specifically for unregistered users who access WebCenter Viewer, when they are shared with a document to view or to approve. Other workspaces or tools/ widgets are not visible apart from the workspace configured by the Admin User. Admin user can also create a new workspace specifically for this purpose.
- **Annotation Color** sets the color in which annotations will be displayed in the Viewer (you can set **Viewer Default** or choose a color from the list).
- **Annotate Approved Documents** sets if and how the users are allowed to annotate documents that are already approved.
  - Select **Enabled** if you want the users to be allowed to annotate approved documents.
  - Select **Warn if Approved** if you want to display a warning before allowing the users to annotate approved documents.
  - Select **Read-Only if Approved** if you don't want the users to be allowed to annotate approved documents.
  - Select **Warn if Approved or Rejected** if you want to display a warning before allowing the users to annotate approved or rejected documents.
  - Select **Read-Only if Approved or Rejected** if you do not want the users to be allowed to annotate approved or rejected documents.
- **Annotate Documents under Approval** sets who can add annotations in the documents under approval.



**Note:** A document version is considered under approval as soon as an approval cycle is started

Choose from the following settings:

- **All Users:** This is the default setting. All users with view access to a document can annotate that document once the approval cycle has started.
- **All Approvers and Approval Master:** The Approvers and Approval master defined in the document approval setup (all stages) for the current version can annotate during the approval cycle.
- **All Approvers:** All approvers defined in the document approval setup (all stages) can annotate the document while it is being approved.
- **Pending Approvers and Approval Master:** Only an approval master or approvers who can submit an approval state (Approve or Reject) for the current version can annotate the document during the approval cycle.
- **Pending Approvers Only:** Only approvers who can submit an approval state (Approve or Reject) for the current version can annotate the document during the approval cycle.
- Specify the **Viewing Quality** as:
  - **Best Performance** (Default): In this mode, the Viewer uses less compression to transfer images. These images are transferred faster but may contain small compression artifacts.
  - **Best Quality:** In this mode, the Viewer uses less compression to transfer images. It takes longer to transfer these images. However, you can view them without compression artifacts.
- **Settings for Automated Artwork**



**Note:** The below options are visible only when Automated Artwork license is enabled.

- **Task Type for Bulk Text Replace:** Choose from the list of task types shown. The selected task type is used in the **Files marked for Edit** widget when editing Artworks in the Viewer.
- **Text Replace Library:** Choose from the list of Text Document Saved Searches shown. The selected Saved Search is used in the **Action List** Widget. Read more about it [here](#).



**Note:** This option requires Packaging Content Management License.

- **PCM Attribute for linking Text Statements:** Choose from the list of document reference attributes shown. The selected document reference attribute is used to attach text content documents (such as .wcc) when saving a graphic file modified with **Action Lists** in the viewer.



**Note:** This option requires the Packaging Content Management License.

- **Log out user when inactive** Select this option, to log out the users whose sessions are not active for a period of time. Option is given to log in again and continue when the user returns to the viewer.
- **Stream video through WebCenter proxy** Enable this option to open video files located in Asset management system in the HTML5 viewer.
- **Show Discussions in Viewer** Enable this option to view discussions widget in the viewer and view all the discussion posts about the document viewed.



**Note:** Project Managers who can Force Approve or Force Reject is not considered an approver. They can add annotations only if the setting is **All Users**.

## Configuring Viewer Workspace

### Workspace

You can configure Workspaces specifically for **Roles**, **Users**, and at **System level** in WebCenter. It is also possible for users to customize their own workspace in the Viewer.

Admin users can create new workspace or assign a workspace or configure a workspace or delete a workspace from the following locations :

- **General Preferences** where workspace selected is for all the users in the WebCenter
- **Role configuration** where workspace selected is for the specific Role
- **User Preferences** where workspace selected is for the specific user only

### Workspace Configuration

On selecting the gear icon in the **Viewer Workspace** field, **Configure Workspace** pop up window is available to make changes to the workspace.

Each of the tool is either in **Visible** state, or **Available** or **Hidden** state.

- **Visible:** Check box is selected for for the tool or widget is not visible for the user but it is available. The user can add the Tool or Widget in the Viewer
- **Available:** Check box with a dash. Tool or Widget is not visible for the user but it is available. The user can add the Tool or Widget in the Viewer
- **Hidden:** Tool is neither visible nor available for the user, so the user will not be able to use the tool or widget in the workspace.

Only the tools and widgets in **Visible** and **Available** state are shown in the workspace for the users to configure.

You can also choose the **Color Theme** of the Viewer specific to the workspace in the **Configure Workspace** pop up.

## Approval

### Approval Cycle Start when Uploading New Document or Version

Define what should happen to a document approval cycle **When uploading a new document or version**. You can choose to:

- **Start if previous version's approval is on-going or finished**
- **Always start (if Approval setup exists)**
- **Never start**

Select the checkbox

- **Always allow the document owner to start/stop the Approval cycle** to allow the document owner to start or stop the approvals on the document(s).
- **Allow the uploader to override the approval cycle start** to allow the user to overwrite the approval start behavior upon upload.

### Require Approval Comments on Viewable Documents

Use this option to require the approvers to add their comments as annotations in the document. Select:

- **Prompt** to start a dialog with a comment field when the Approver Rejects or Approves with a Condition. The Approver can choose to comment in the dialog or leave the comment field empty. This is the default setting.
- **Any Annotation** to enforce that at least one annotation is present while Rejecting or Approving with a Condition. The comment field will contain the following message.

Document annotated

- **User Annotation** to force the Approver to add at least one annotation in the document version before Rejecting or Approving with Condition. The comment field will always contain the following message.

Document annotated



**Note:** This setting will be applied when submitting an Approval Status from pages outside the viewer.

### Block approval when an annotation was set/changed on current version

Check this option to prevent users who have created an annotation on the current version of a document from submitting the **Approved** status without a condition.

If **Approved with Condition** is not enabled, you can submit only the **Rejected** approval state. If users have replied to an existing annotation from another user, they will no longer be able to approve the document without condition.



**Note:** This setting will also be applied when submitting an Approval Status from any page outside the Viewer. The user will then get the corresponding feedback.

### Reasons for Rejection List

After configuring and uploading a list of Reasons for Rejection, an admin user can choose the list from the drop down to enable reasons for rejection on the system. Then, when a user rejects a document, the reasons for rejection can be picked from this structured list. Read more on how to configure the list of [Reasons for Rejection](#).



**Note:** When the Reasons for Rejection are enabled in the system, bulk rejection is automatically disabled.

### ArtiosCAD

To open your document in the ArtiosCAD desktop application directly from the WebCenter server, you need to set the **ArtiosCAD Preferences** accordingly.

#### Open ArtiosCAD Documents

- **No Application:** This is the default **Preference**. When this is selected, you cannot open the documents in the ArtiosCAD desktop applications.

- **ArtiosCAD Standard Edition:** Select this setting to be able to download ArtiosCAD documents and open them in your ArtiosCAD desktop application.
- **ArtiosCAD Enterprise Edition:** Select this to open your ArtiosCAD documents in the installed ArtiosCAD Enterprise Edition directly from WebCenter.

The documents will open in the **managed mode** allowing you to make modifications to the file and update it without having to browse to the corresponding project and folder.



**Note:** This option is only supported from ArtiosCAD Enterprise 14 onwards.

### Document Upload Preferences

- **Allow raising Document Revision when uploading a new Document Version:** Enable this to allow the users to raise the **revision** while uploading a new **document version**.
- **Allow Instant uploading when selecting documents:** X Choose this option to start uploading documents immediately when they are selected, while the rest of the page is still being filled in or other documents are still being selected.

### Workflow Editor

By default, HTML5 is used as Workflow editor.

### User Creation

To create a new approval User from an approval page quickly, you can select and apply a particular user's settings as the **Approval User Template**.



**Tip:** If you do not want to take up a license for a Template User, deactivate the user by unchecking the **Active User** option in the Profile page.

It is possible to configure this at two levels.

- To specify a global template, go to **Admin > Preferences > General > User Creation Preferences**. Select a particular user existing in the system as your **Approval User Template**.

This template will be set as the system wide approval user template. However, it is possible to override this in **My WebCenter > My Preferences > User Creation Preferences**.

- To specify a template for a User who can create other users, go to **My Preferences > User Creation Preferences** and specify an **Approval User Template**. You have the following options and your choice will override the admin settings:

- **Do No Use a Template**
- **Use Global Approval User Template** to apply the user template specified in the **Admin Preferences**.



**Note:** If you have not explicitly selected the **Do not Use a Template** option or has any other user specified as the template, the global template will be applied by default.

- You can select a particular user as your template. In the drop-down you will see your own Users if you are a Project Manager and all Users if you are an administrator.



The following Preferences and settings of the template are copied to the newly created user:

1. Preferences:
  - **Language**
  - **Units**
  - **Start Page**
  - **User Menu**
  - **My Work Setup**
  - **Viewer Preferences**
  - **Collada Viewer Preferences**
  - **Workflow Editor Preferences**
  - **Document Upload Preferences**
  - **ArtiosCAD Preferences**
  - **Download Formats**(copied only if the user creating the new user is an Administrator)
  - **Group Memberships**(copied only if the user creating the new user is an Administrator)
  - **Other Preferences** are the user preferences not mentioned above (for example: show thumbnails or not, search results layout, etc.).
2. The Authentication Settings ([Deactivation](#), SSO, etc.)

### Project creator

A new user type has been introduced from WebCenter 18.1 onwards called **Project Creator**. This user can create new projects, but cannot manage them. This user type is similar to **Project Manager** but the main difference is that the Project Creator does not have any rights over the project, once the project is created.



**Note:** A Project Creator user can access the project created,

- if added as a member of the project either directly or in a Group or Role within the project
- if the option **Project Creator becomes Salesperson after Project Creation** is enabled by the admin user.

When WebCenter is under the Named User License model, a dedicated license is available for the Project Creator users. Similar to the other named user license types, you can create as many Project Creator users as you have licenses.

When WebCenter is running in the concurrent license model, you can create an unlimited number of Project Creator users.

You can have two types of permissions for Project Creators users, namely:

- **Limited Visibility of Companies and Groups:** Can view only the list of Groups / Users, Company and locations that are limited to the user's visibility scope
- **Full Visibility:** Can view all Groups/ Users, Company and locations without any restrictions.

## Delegation Preferences- System Wide

### Delegation Restrictions

To ensure that your user(s) delegate to a limited list of users, you can use the **Delegation Restrictions** either as a system wide settings or per user.

The Administrators can specify system wide delegation restrictions. Admin users can place restrictions on delegation based on various factors like:

- **No Delegation** which prevents your users from delegating their work.
- **All Visible Users** which allows to delegate any user who are visible in his or her list.
- **Users in the same Company** which allows you to choose delegates, only within the same company.
- **Users in the same Location** which allows you to choose delegates, only within the same location.
- **Users in the same Group** which allows you to choose delegates, only within the same group.

You can also enable **Delegator receives e-mail notifications during delegation period** option to receive email notifications when a user has delegated the work.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

### Week Numbering

The first week of the year is determined based on the geographical location. To accommodate the differences in week numbers in WebCenter, an Admin User can set the preference on how many days are mandatorily required to determine the first week and which day is considered as the first day of the week. These settings are used for the various reports generated from WebCenter, for example show the week numbers in the Search Facet Graphs.

To configure this option, Admin users can navigate to **Preferences > General** and scroll down to **Week Numbering** options.

- **First Day of Week** : Choose any day of the week as the first day of the week. Default is set to Sunday.
- **Minimum Days in First Week** : Choose the number of days that should be part of the new year for the first week of the year and the default value set is 1.



**Note:** The ISO 8601 (which is followed in Europe) definition for week 01 is the week with the first Thursday in it. Weeks start on Monday, so First Day of Week should be set to Monday and Minimum Days in First Week should be set to 4.

## 3.4.2. Password Preferences

The Password Preferences determine whether passwords must meet security requirements, whether they expire, and whether or not users need to provide their passwords when approving or rejecting documents.

### Password Complexity

You can enforce a number of password rules by enabling **Passwords must meet complexity requirements**. When this feature is not enabled the only requirement is that passwords be non-blank.

If **Passwords must meet complexity requirements** is enabled, WebCenter passwords:

- May not contain the user's username, first name, or last name
- Must contain characters from three of the following four categories:
  - English uppercase characters (A through Z)
  - English lowercase characters (a through z)
  - Base 10 digits (0 through 9)
  - Non-alphanumeric characters (for example: ! \$ # %)
- Admin can also additionally enable two more options in **Password Complexity** namely :
  - **Set minimum password length** which can be between 6 to 16 characters.



**Note:** Enabling this option or changing the value expires all passwords. Users will be required to change their password on the next login. By default, it is set to eight characters.

- **Set enforce password history** reflects the number of unique passwords the users has to change before an old password can be reused. This can be set between 1 to 20 and by default is set to 1.

### Expiration Settings

Enabling password expiration allows you to limit the length of time that a password may be used. When a user logs in with a password that has not been changed in the required number of days, he/she will be required to change their password before accessing the site.

To enable password expiration, select the option **Expire user passwords when they are ... days old** and type a number of days.



**Note:** To immediately expire all passwords without changing the other password preferences, click **Expire all passwords now** in the top right of the page.

### Consecutive Failed Logins

If there are Consecutive Failed Logins, you can select the option **Block authentication after \_\_\_ failed consecutive login attempts** or you can choose to **Never block authentication after failed login attempts**.

### Digital Signature

- Enable the option **Require password for Approvals/Rejections**, if you want to force users to provide their passwords whenever they approve or reject a page or document in WebCenter. Admin users can also set additional options like
  - **Prompt for password** : This is the default option. When this option is chosen, only the password has to be provided for approval or rejection.
  - **Prompt for username and password**: When this option is chosen, both the User name and password has to be provided.

- **Prompt for username and password once, afterward only prompt for password:** When this option is chosen, user name has to be provided in the first instance and thereafter only the password has to be provided.
- Enable the option **Allow alternative passwords to be used for Approval/ Rejections and Tasks**, in case the users need another level of authentication other than the WebCenter password authentication.
- You can choose **Block browser auto complete on password confirmation** to ensure passwords are not stored for any users in WebCenter.



**Note:** It is applied to both the login page and also when the user does re-authorization for Approvals and Task completion.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

## 3.4.3. Security Preferences

Use the **Security** preferences if you want to tighten the security in WebCenter.

By default, all the actions are allowed unless mentioned otherwise in the explanation. Deselect them if you do not want any user to perform these actions.

- **Approval**
  - **Approval outside the Viewer**

This option enables or disables the approval functionality for documents based on where the document is viewed from. There are 3 options:

    - **All Documents**

All documents can be approved outside of the Viewer.
    - **Non-viewable Documents only**

Only non-viewable documents can be approved outside of the Viewer. Viewable documents (like Graphical or ArtiosCAD documents) can only be approved in the Viewer. Bulk-approval is not enabled.
    - **Do not allow**

All documents need to be approved in the Viewer. Non-viewable documents can not be approved.
  - **Allow Force Approval By** and
  - **Allow Force Rejection By** : Both these options have the following drop down to choose from:
    - PM, Administrators and Approval Master
    - PM and Administrators
    - Approval Master
  - **Allow Conditional Approval option in Approval setup** allows a conditional approval option in the approval setup. When you do not want to allow conditional approval in approval setup, simply

disable this option. Only the Admin can set this system-wide option. When this is disabled, the **allow conditional approval** option will not be available for the users while setting up approval on documents, projects or folders.



**Note:** Enabling or disabling this option will not influence the approval cycles that are already existing or started.

- **Approved Documents**

- **Allow removing Documents with Approval actions** option lets Project Managers or Project members with the **Delete** right to delete documents that have already been approved /rejected / commented by at least one person or group.
- **Allow changing Attributes of approved documents** option lets Project Managers or Project members with the **Change Properties** right to edit the attributes of already approved documents.

- **Attributes**

- **Allow non-Administrators to change the Attribute Category of Projects/Documents** option allows Admin users to restrict other users from changing the Attribute Category of a Project or Document. (By default, this option is enabled)
- **Allow importing from/exporting to JDF on Attributes page** option allows Admin users to restrict the importing or exporting of Attributes to JDF. (By default, this option is enabled)

- **Inactive Projects**

- **Allow changing Attributes of inactive projects** lets Project Managers of the respective project or the Admin user to edit the attributes of inactive projects (projects with the **Non Active, Completed, On Hold** or **Canceled** status).
- **Allow changing members of inactive projects** lets the Project Managers and Admin users to edit the members' list for inactive projects.
- **Allow Document operations on inactive projects** lets the project members with the **Change Properties** right to edit documents in inactive projects.

When this is selected, project members can:

1. download documents (the project history is updated in that case),
2. view the document
3. see a document history or the project history
4. copy documents to other projects (but not within the same project).
5. annotate documents.

But cannot:

1. upload documents to the project,
2. start an approval cycle or do approval operations on documents,
3. move documents,
4. delete documents,



**Note:** Administrators and the Project Manager for the inactive project can perform all document-related actions.

- **Discussions**

- **Allow removing Discussions and Discussion Messages**

- **Archived Projects**

- **Allow non-administrators to see Archived Projects**
- **History** Require adding a change comment.
- **Email Notifications and Download Link**
  - **Allow Project Members with Download permission to e-mail a link for non-authenticated download of a document**, allows Project Managers and members of a project with Download permissions to send a download link for a file within their project to non-WebCenter users.
  - **Allow large Document preview (approval e-mail notifications)** adds a preview of the graphics and CAD documents in the approval related notification emails.
  - **Allow non-authenticated download of Documents (approval e-mail notifications)** adds a **Download Document** link to the default approval emails generated by WebCenter.
  - This link will only be valid for a certain number of days (enter that number in the **The download link will be valid for ... days** field). The default value is 14 days.



**Note:**

- By default, this option is deselected.
- If you deselect this option after non-authenticated download links have been sent, these download links will become invalid.
- When a non-WebCenter user clicks a link that is invalid, expired or tampered with (for example if the URL was changed), the user will see a web page stating that the link is invalid.
- Changing the link validity (number of days) will only apply to new links.

- **Forward Link- Registered Users**

- **Allow sharing Viewer Link** allows sharing of link from the Viewer or Document Action menu, to the users already available in WebCenter.
- **Allow Forward Approval option in Approval setup** allows sharing of link for Approval in the Approval Setup (Project or Folder or Document ), to the users who are already available in WebCenter.
- **Allow Forward to** choosing one of the options enables the approver(s) to share the document with
  - **Any Visible user(s)** means any user irrespective being present in the role or groups or within the project.
  - **User(s) in the same project** means restricted to the users present in the project as an individual member or in a Role or in a Group within the same project.
  - **User(s) in the same Approval Scope** means can forward to anyone within the same Group or Role as the forwarding user.

- **Forward Link - Unregistered Users**

- **Allow sharing Viewer Link** allows sharing of link from the Viewer or Document Action menu, to any unregistered user.
- **Allow Forward Approval option in Approval setup** allows sharing of link for approval to unregistered users from Project or Folder or Document.

You can commit the changes made in this page using the **Save** button.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

## 3.4.4. Document Type Preferences

### Document Types

The Document Types page controls the kind of files WebCenter supports. The document types you enable here are available for selection:

- When uploading a new file.
- In the **Search for** field when searching for documents.

You can edit the **Document Type** preferences in **Preferences > Document Types**.

To enable or disable a specific Document Type, check or uncheck the option in the **Enable** column. Click **Save** to confirm.



**Note:**

If you disable a document type and you already have documents of that type in WebCenter, they can still be found by selecting **All** in the **Search for** field when searching.

**Document Details** pages for those document types will still be available, and the documents can still be downloaded and have new versions uploaded.

### Other Preferences

On this page you can control the system wide settings for Automatic Document Naming, Default Attribute Category and Start Task for new Documents/Versions. You can either choose **None** or choose a different value.



**Note:**

These settings are found in each project and template on the **Document Creation** page where you can specify:

- **None**
- **Default** (using the system wide settings)
- **Custom** (defining project/template wide settings)

For each Document Type, you can set up:

- **Automatic Document Name**



**Note:** Optionally, you can enable the general option: **Enable File Extension Specific Counter**. This will make sure that you have different counters for different types of documents.

- **Default Attribute Category**

You can setup a task to start automatically when you upload a specific file type as a new document or a new version by enabling the following options:

- **Start task for new Documents**
- **Start task for new Versions** (new version of)

To selectively apply the above settings to documents in blank projects, you can enable or disable the options (for all document types):

- **Apply Automatic Naming to Documents in Blank Projects**
- **Apply Default Attribute Categories to Documents in Blank Projects**
- **Apply Default Start Task options to new Documents in Blank Projects**
- **Apply Default Start Task options to new Versions in Blank Projects**

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

### Find and Unlock Locked Documents

Locked documents are documents that users have downloaded and are working on, and want to flag to prevent others from working on them.

The Admin user (or any member of the Admins group) can find locked documents belonging to all users and unlock them so that others may work on them without receiving warnings that they are locked.

This is particularly useful for freeing up documents that have been locked by users who are absent for longer periods of time, or who have left the project entirely.

1. Click **Admin > Project Management > Find Locked Documents**.
2. Either filter for users by entering (part of) their last name in the **Search users by last name** field, or click **Go** right away to see all locked documents.
3. Select the document(s) to unlock by selecting the corresponding boxes.
4. Click **Unlock checked items** .

## 3.4.5. Notifications Preferences

The **Notifications** page allows you to specify exactly which events in WebCenter should trigger an e-mail notification to the users involved.

For every event or action in WebCenter, you can determine whether it:

- is logged in the project history (select **Include in Project History**).
- triggers an e-mail notification to:
  - the Project Manager only (select **Manager**),
  - all the members involved with the event (select **Involved People**),



**Tip:** Click on **Involved People** to see a list of involved people for each event.

- all the project members (select **Members**).

You can also set up WebCenter to **Send a reminder to the assignee or an approver when a Task or an Approval is overdue** and **Repeat the reminder every x days until the Task or Approval is finished**.



To limit the number of overdue reminders, you can set the system to only send reminders for **Started tasks** or **Tasks that can be completed** (for example, for tasks having a predecessor needing to be completed before they can be started).

Those options are available when **Send a reminder...** is selected.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

## 3.4.6. Menus

The **Menus** preferences allow you to define what users can see by customizing the WebCenter menus. For example, you can remove certain menus for some users, so they have a simpler user interface to work with (they only see the menus they need to use).

You can assign custom menus to users and / or companies (see [Edit a User](#) on page 291 and [Edit a Company](#) on page 280).

The **Menus** page contains the **Default** menu, and any custom menu you have already created.

**Note:**

You cannot edit or delete the **Default** menu, but you can use it as a basis for creating custom menus.

From here, you can create/update a custom menu either [through the WebCenter user interface](#) or [using XML](#). You can also [delete a custom menu](#).

### System History Logs

All Menu related events like

- **Menu Created**
- **Menu Deleted** and
- **Menu Changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### Create a Custom Menu through the WebCenter User Interface

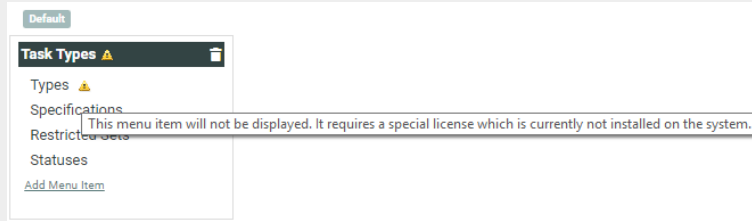
You can create a custom menu for each category of users, to make it more convenient for them.

You will need to:

1. Determine which menus a particular group of users needs, and which menus they don't need.
2. On the **Admin > Preferences > Menus** page, click **Add Menu**.
3. [Create your custom menu](#).



**Note:** If you do not have **Task Management License**, the **Task** related items will show the following warning:



4. Assign the menu to the user, group or company you created it for.
5. Log in to WebCenter as one of the users to which you gave the custom menu, and check whether the menu works.

### Create a Custom Menu

1. On the **Admin > Preferences > Menus** page, click **Add Menu**.
2. On the **Add Menu** page, enter a **Menu Name** and **Menu Description** for your new menu.
3. Click the type of menu you want to customize: **Main Menu**, **Project Details** or **Document Details**.

You are starting with a copy of the **Default Menu**.

On the left hand side, you can see the **Menu Gallery** (1) containing the default menu items in bold, and the default sub menu items under them.

On the right side, you can see the **Menu Builder Canvas** (2) (which is a graphical representation of the menu). This reflects any changes you make.

At the bottom (3), you can see and edit the details of the menu or sub menu item currently selected.

At the top (4), there is a menu to switch between different types of pages. The toggle on the left allows you to switch between Menus and Actions.

4. Edit the menu as desired:

- [Add a Default \(Sub\) Menu Item](#) on page 109,
- [Add a Custom \(Sub\) Menu Item](#) on page 112,
- [Remove a \(Sub\) Menu Item](#) on page 114.



**Tip:** You can also re-order the menus, or the sub menus within a menu, by drag-and-dropping them on the **Menu Builder Canvas**. You cannot drag-and-drop a sub menu to a different menu though.

5. Click **Save** at the bottom of the page.

6. When you are done editing your custom menu, you can click **Return** to go back to the **Menus** page.

**Add a Default (Sub) Menu Item**

To add a default menu or sub menu item:

1. Drag it from the **Menu Gallery** into the **Menu Builder Canvas**.



**Note:**

You can add the same sub menu item to different menus on the **Menu Builder Canvas**, but you cannot add the same sub menu item twice to the same menu, or add the same menu twice to the **Menu Builder Canvas**.

To quickly see whether a (sub) menu item is already used in your custom menu, you can select it in the **Menu Gallery**: this highlights where it is used on the **Menu Builder Canvas**.



**Tip:** After making a change, you will see that the **Default Menu** label above the **Menu Gallery** becomes **Custom Menu**. You will also see a **Revert Menu** link under it. Click this link if you want to cancel all your changes and go back to an unedited copy of the default menu.

2. In the **Edit Menu** area at the bottom, you can change the properties of your (sub) menu:

a) To define what the (sub) menu is called:

- If you don't want to translate the (sub) menu (it will have the same name in all languages):
  1. Choose **Simple** as **Label Type**.
  2. In **Label**, enter the name to give your (sub) menu.
- If you want to define a new name in different languages:
  1. Choose **New Localized** as **Label Type**.

2. In **Language Tag**, enter a new language tag to associate to that menu name in all languages (this language tag is how WebCenter refers to that menu name internally. It must be unique).
3. In the dialog that opens at right, enter the translations of that menu name in all your WebCenter languages. You need to enter at least the English name.



**Note:**

Make sure your `customizationConfig.xml` file contains language tags for all the languages you use here (see [Customize the Language Files](#) on page 1091).

If this is the case, your translations will automatically be added to your custom language files. If you didn't have a custom language file for one or more languages in which you add a translation here, these files will be created automatically.

Otherwise, your (sub) menu will use the value you entered in the **Language Tag** field as a **Simple Label** (it will be shown as it is for all languages).

- If you want to use an existing WebCenter string (piece of user interface text) and its translations as menu name:
  1. Choose **Existing Localized** as **Label Type**.
  2. In **Language Tag**, enter the language tag that is associated with the string you want to use in your language files (in your [custom language files](#) if you have any, otherwise in your default language files).



**Tip:** When you start typing a language tag, the **Language Tag** field shows all language tags starting with the characters you typed; you can select the desired one in the list.

3. The dialog that opens at right shows the translations of that string in all your WebCenter languages.

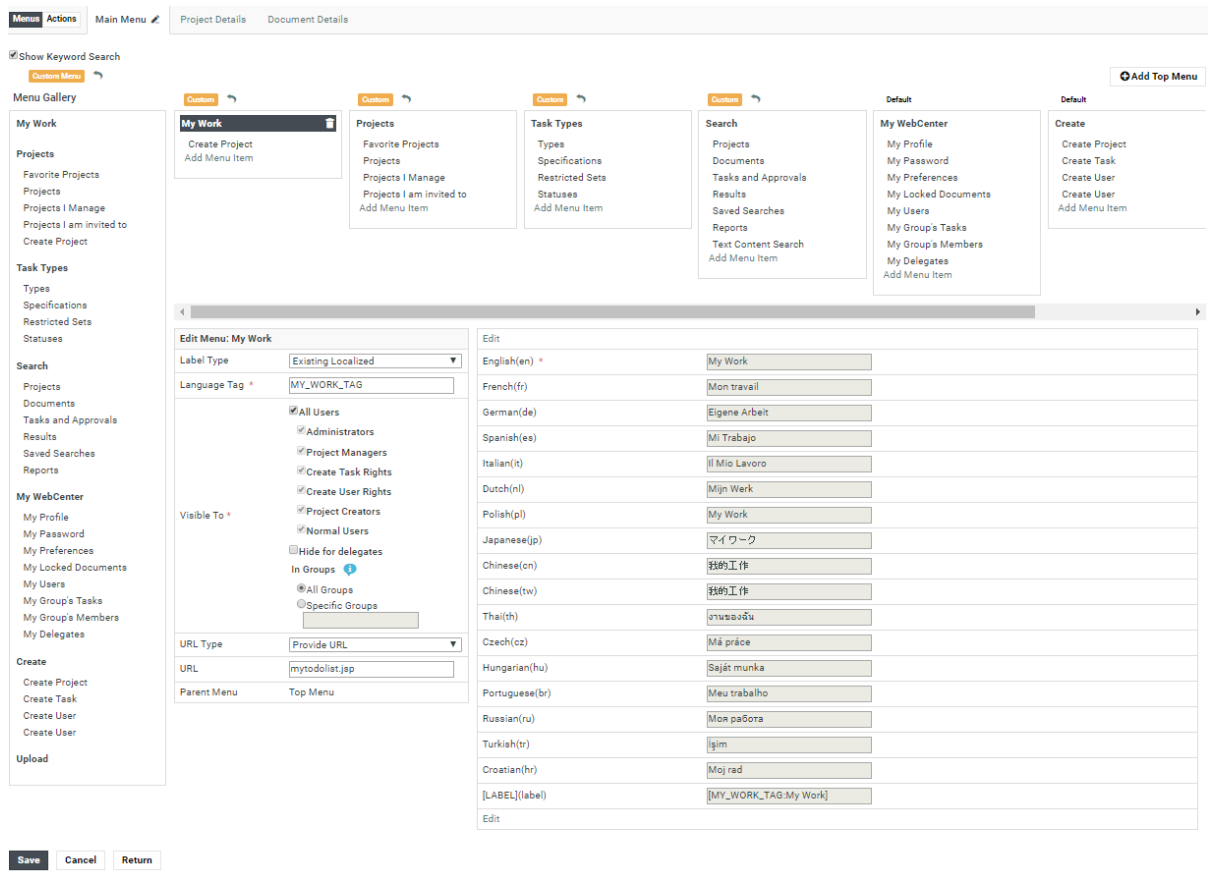


**Note:** You can edit those translations (click **Edit** and enter the new translations), but then they will be changed on every WebCenter page that uses that string.

- b) To define who can see it:

Edit the menu item to limit the **visibility**. Specify the **Visible To > In Groups** as **Specific Groups**.

If you want to limit the menu's visibility to certain groups, select **Groups** and enter the names of the groups that can see the menu, separated by a semicolon (example: GROUP1 ; GROUP2). You can see this example when hovering on the field.



c) To define where a user goes to when clicking it:

- If you want the (sub) menu to link to a specific page (within WebCenter or external):
  1. In **URL Type**, select **Provide URL**.
  2. In **URL**, enter or paste the URL of the page to link to.
- If you want it to show the results of a (global) saved search:
  1. In **URL Type**, select **Saved Search**.
  2. In **Saved Search**, select the global saved search you want to link to.
- If you want it to use it as a shortcut to create a Project with a specific characteristic:
  1. In **URL Type**, select **Create Project with Characteristic**.
  2. In **Characteristics**, select the characteristic you want to use for the Project.
- If you want it to use it as a shortcut to create a Project from a specific template:
  1. In **URL Type**, select **Create Project with Template**.
  2. In **Project Template**, select the template you want to use for the Project.
- If you want it to show a list of Projects that have a specific characteristic
  1. In **URL Type**, select **Project List with Characteristic**.
  2. In **Characteristics**, select the characteristic of the Projects you want to show.

- If you want the (sub) menu to show a Dashboard
  - In **URL Type**, select **Dashboard**.
  - In **Dashboard**, select the dashboard from the drop down or **Create New Dashboard**



**Note:** You can only select a **Parent Menu** when *creating a new (sub) menu*, not when editing an existing one.

3. Click **Save** at the bottom of the page.

**Add a Custom (Sub) Menu Item**

1. On the **Menu Builder Canvas**, click where you want to add your sub menu (if you want to add a top-level menu, you can click anywhere on the canvas).
2. In the **Edit Menu** area at the bottom, click **Add Custom Menu**.
3. Still in the **Edit Menu** area, define the properties of your (sub) menu:
  - a) To define what the (sub) menu is called:
    - If you don't want to translate the (sub) menu (it will have the same name in all languages):
      1. Choose **Simple** as **Label Type**.
      2. In **Label**, enter the name to give your (sub) menu.
    - If you want to define a new name in different languages:
      1. Choose **New Localized** as **Label Type**.
      2. In **Language Tag**, enter a new language tag to associate to that menu name in all languages (this language tag is how WebCenter refers to that menu name internally. It must be unique).
      3. In the dialog that opens at right, enter the translations of that menu name in all your WebCenter languages. You need to enter at least the English name.



**Note:**

Make sure your `customizationConfig.xml` file contains language tags for all the languages you use here (see [Customize the Language Files](#) on page 1091).

If this is the case, your translations will automatically be added to your custom language files. If you didn't have a custom language file for one or more languages in which you add a translation here, these files will be created automatically.

Otherwise, your (sub) menu will use the value you entered in the **Language Tag** field as a **Simple Label** (it will be shown as it is for all languages).

- If you want to use an existing WebCenter string (piece of user interface text) and its translations as menu name:
  1. Choose **Existing Localized** as **Label Type**.
  2. In **Language Tag**, enter the language tag that is associated with the string you want to use in your language files (in your *custom language files* if you have any, otherwise in your default language files).



**Tip:** When you start typing a language tag, the **Language Tag** field shows all language tags starting with the characters you typed; you can select the desired one in the list.

3. The dialog that opens at right shows the translations of that string in all your WebCenter languages.



**Note:** You can edit those translations (click **Edit** and enter the new translations), but then they will be changed on every WebCenter page that uses that string.

b) To define who can see it:

Edit the menu item to limit the **visibility**. Specify the **Visible To > In Groups** as **Specific Groups**.

If you want to limit the menu's visibility to certain groups, select **Groups** and enter the names of the groups that can see the menu, separated by a semicolon (example: GROUP1 ; GROUP2). You can see this example when hovering on the field.

Language	Translation
English(en)	My Work
French(fr)	Mon travail
German(de)	Eigene Arbeit
Spanish(es)	Mi Trabajo
Italian(it)	Il Mio Lavoro
Dutch(nl)	Mijn Werk
Polish(pl)	My Work
Japanese(jp)	マイワーク
Chinese(cn)	我的工作
Chinese(tw)	我的工作
Thai(th)	งานของฉัน
Czech(cz)	Má práce
Hungarian(hu)	Saját munka
Portuguese(br)	Meu trabalho
Russian(ru)	Моя работа
Turkish(tr)	İşim
Croatian(hr)	Moj rad
[LABEL]({label})	[MY_WORK_TAG:My Work]

c) To define where a user goes to when clicking it:

- If you want the (sub) menu to link to a specific page (within WebCenter or external):

1. In **URL Type**, select **Provide URL**.
2. In **URL**, enter or paste the URL of the page to link to.

- If you want it to show the results of a (global) saved search:
    1. In **URL Type**, select **Saved Search**.
    2. In **Saved Search**, select the global saved search you want to link to.
  - If you want it to use it as a shortcut to create a Project with a specific characteristic:
    1. In **URL Type**, select **Create Project with Characteristic**.
    2. In **Characteristics**, select the characteristic you want to use for the Project.
  - If you want it to use it as a shortcut to create a Project from a specific template:
    1. In **URL Type**, select **Create Project with Template**.
    2. In **Project Template**, select the template you want to use for the Project.
  - If you want it to show a list of Projects that have a specific characteristic
    - 1. In **URL Type**, select **Project List with Characteristic**.
    - 2. In **Characteristics**, select the characteristic of the Projects you want to show.
  - If you want the (sub) menu to show a Dashboard
    - In **URL Type**, select **Dashboard**.
    - In **Dashboard**, select the dashboard from the drop down or **Create New Dashboard**
- d) To define where to put it in the menu structure:
- If you want this menu item to be a top-level menu, select **Top Menu** in **Parent Menu**. This will place it at the right of the Menu Builder Canvas, after all the other menus.



**Tip:** You can re-order the menus by drag-and-dropping them.

- If you want it to be under an existing menu item, select this existing menu item in **Parent Menu**.



**Tip:** You can also re-order the sub-menus within a menu by drag-and-dropping them.




**Note:** You can only select a **Parent Menu** when creating a new (sub) menu, not when editing an existing one.

Click **Add** when you are done.

4. Click **Save** at the bottom of the page.

#### **Remove a (Sub) Menu Item**

1. To remove a menu or sub menu item from your menu, select it in the **Menu Builder Canvas** and click the grey cross  beside it.
2. Click **Save** at the bottom of the page.



## Custom Actions

Just like custom Menus, you can customize **Action** buttons. This feature allows you to remove and re-arrange default Actions for different (groups of) Users. Also, you can add new custom Actions ( such as a JavaScript, Create Task, Start Workflow etc.) with custom icons.

There are different types of Actions such as:

- in a table header
- in the header of a Project or Document
- at the top right of pages
- and inside tables (icon-only)

Just like customizing Menu items, you can add or remove them, set a Label and Visibility and modify their display order. You can also specify:

- Action Type
- Priority
- Selection
- Rendering
- Icon
- Icon Color



**Note:** The available settings depend on the Type of Action that is being customized.

## Custom Actions in Different Locations

In the Menu Builder, select **Actions** to customize them. **Menus** and **Actions**. Once **Actions** is enabled, different types of pages become available in the menu:

- Project Lists
- Project Details
- Document Details
- Search
- Cart
- My Work

Under every page type, the individual pages or sections that can be customized are listed. Here you can find an overview of the meaning of each of these different sections:

### Project Lists

You can customize the Actions displayed in the table header of the following pages: Favorite Projects, Projects I am invited to, Projects I Manage, and Projects.

For each of the pages you can add or remove **Header Actions** and **Table Actions**. The Header Actions are the buttons displayed top right, like **Create New Project** in the example below. The Table Actions are the buttons listed in the table header, such as **Add to Favorites** and **Add to Cart** in this example.

Projects Create New Project

Add to Favorites  
  Add to Cart  
  Delete  
  Change Manager  
  Update Project(s)
 Filter on Project Name

Project	Description	Project Status	Manager	Created	Modified	Due On
<input type="checkbox"/>	Request0004	Completed	Keizer, Debbie (DEKE)	Jun 27, 2016	Jun 27, 2016	
<input checked="" type="checkbox"/>	Request0003	Active	Keizer, Debbie (DEKE)	Jun 27, 2016	Jun 27, 2016	
<input type="checkbox"/>	Request0002	On Hold	Keizer, Debbie (DEKE)	Jun 27, 2016	Jun 27, 2016	
<input type="checkbox"/>	Request0001	Active	Keizer, Debbie (DEKE)	Jun 27, 2016	Jun 27, 2016	

### Project Details

In this section Project Detail type pages and sections are listed. The Project Header has **Left Actions** and **Top Actions**. The Top Actions are not used by default, but allow you to move (part of) the buttons on the left to the top right of the page.

Project: Request0001 Active

Upload

Upload Multiple Documents

Mail link to

More...

Manager: Keizer, Debbie (DEKE)

Customer:

Due On:

Modified: Jun 27, 2016

Description:

Project Documents (Table) and Project Bill of Materials (Table) determine the Actions in the table headers on the Project Details Documents and BOM pages.

View and Annotate  
  Compare in Viewer  
  Download  
  Delete Document(s)  
  More...

Documents 1

Project Documents (Document) and Project Bill of Materials (Document) define the Action buttons that are displayed when you hover over individual Documents listed (typically compact icon-only buttons).


Documents 1 Version

<input type="checkbox"/>	bluebird.png (122.1KB)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1 <input type="checkbox"/>
--------------------------	------------------------	--

### Document Details

For now, this item only contains the Document Header. It works in a similar way as the Project Header with Left Actions by default, and optional Top Actions. Note that some of the available Actions still depend on Document Type. For example, the Run as Standard Action will only be shown for CAD Design files.

BlueBottle.png

<input checked="" type="checkbox"/> Mail link to		Document: BlueBottle.png(755.4KB)
Q View and Annotate		Version: 1
<b>Download</b>		Description:
More...▼		Project: Request0001
		Approval: No Approval Required

### Search


It is possible to customize the table header Actions for both Project and Document Search Results.

#### Search Results

**Q View and Annotate**
 Compare in Viewer
  Download
  Add to Cart

For Document Search Results, Action buttons can also be customized. In case this is already done in the Saved Search setup, WebCenter will combine the two setups. For example, if the Download button is present in both, it is displayed, if it is not present in one of them, it is not shown.

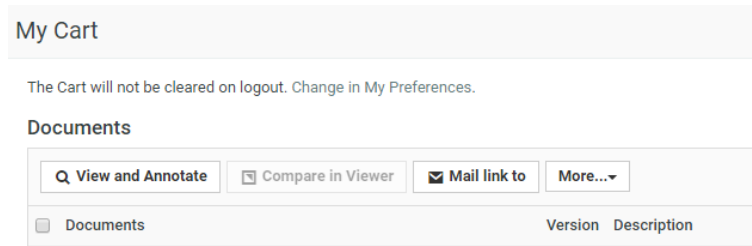
Blue Bottle.png



For Search, it is possible to add an extra filter in individual Saved Searches based on **Tag** values defined in the Action configuration. See [Action Settings](#) on page 118 for more details.

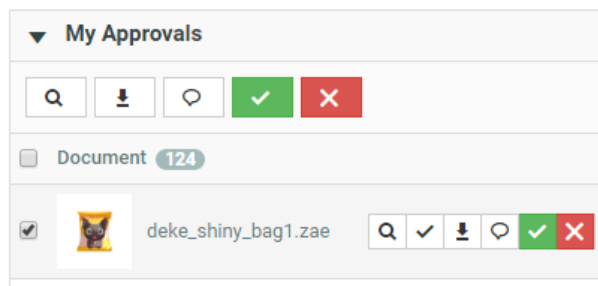
### Cart

The Cart Projects and Document pages have table header Actions which can be customized.



### My Work

On the My Work page, it is possible to customize the table header Actions for the My Approvals section. The individual Document Actions can be customized for: My Approvals, My Recently Submitted Approvals, and Approvals to Follow Up.



### Action Settings

Depending on the Action type and location, following settings may be available:

#### Priority

Priority determines if and how the Action button is displayed, there are a few options:

- **Primary (always visible)** - this type of button is always visible and has the primary color selected in the Customization (by default a dark blue/grey shade).
- **Secondary (always visible)** - this button is similar to the primary button, but uses the default button color selected in the Customization (by default: white).
- **Default (visible if space available)** - this button is similar to the secondary button, but is only displayed if there is enough room, if not, the button is listed in a More dropdown menu allowing for optimal use of available space.
- **Available (always in "More")** - this option is always displayed in the More dropdown menu.

#### Selection

The **Selection** setting determines when the button becomes available. You can set it to **No selection required** if it is not needed to select anything to perform the Action, if one or more items are required, select one of the other options (for example: to delete a Document, you need to select at least one item).

#### Rendering and Icon

The **Rendering** setting can be used to determine whether to show only an icon, only the label, or both. At the top of the settings panel, you can see a preview of your button.

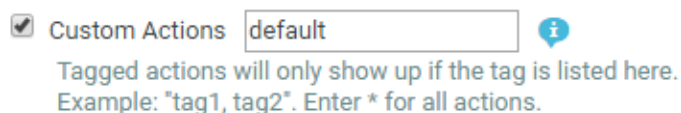


In the **Icon** dropdown you can find a number of icons to choose from. It is not possible to add any additional icons, but new icons will be added in future versions of WebCenter. Use the **Color** dropdown to select one of the standard colors for your icon.

### Tag

The **Tag** field is only available for custom Actions in Search. For Search, it is possible to add an extra filter in individual Saved Searches based on **Tag** values defined in the Action configuration.

When the **Custom Actions** setting in the Search Layout Options of your Saved Search is enabled, tags can be entered separated by a comma, by default there is a "default" tag. A \* matches all tags. When the checkbox is disabled, no custom Actions buttons will be shown for the Saved Search. When the checkbox is enabled, all custom Actions which do not have a "tag" will be shown as well as all the custom Actions which have one of the tags mentioned in the input field.



### Task Settings

For Workflow and Create Task buttons, several settings are available such as **Task Type**, **Start Task** and which fields to show. For more details, see: [Custom Action Types](#) on page 119.

### Custom Action Types

With the introduction of the customizable Action buttons, you can not only rearrange and remove the regular Actions, but also add your own custom Actions. Following types are available in the gallery:

#### JavaScript

The custom JavaScript button has an additional **JavaScript** field (mandatory) where you may copy/paste your own custom code.

It is possible to use fixed variables to reference WebCenter Projects or Documents in this JavaScript code. These variables can be used for example when creating buttons that redirect to specific Project or Document Details pages. An overview:

Variable	Type	How to use
selectedIDs	Array	If a Project list or Document list is available in the action context, the IDs of the corresponding items (for Documents, this is the Document version ID) is available in the variable "selectedIDs".
projectID	String	If a single Project is available in the action context, the ID of this Project is available in the variable "projectID".
docVersionID	String	If a single document is available in the action context, the document version ID of this document is available in the variable "docVersionID".

Variable	Type	How to use
menuFile	String	Where possible, the current Menu file selection (controlling the display of the primary WebCenter Menu) is available in the variable "menuFile".



**Note:** It is not guaranteed that JavaScript segments relying on other parts of the browser page DOM or detailed implementation of WebCenter pages will be supported in future versions.



**Note:** Using other (undocumented) variables is not supported and highly discouraged.

### Start Workflow

The custom Start Workflow button allows you to select a **Workflow** Task Type to launch upon clicking the button. Any selected Documents will be added to the Workflow. In a Project context, it is possible to either launch one Workflow per Project or one per selected Document using the **Options** setting.

### Create Task

Using the Create Task custom Action button, it is possible to immediately create a new Task from the selected **Task Type**. Use the **Start Task** options to either immediately start the Task, or at a later point in time.

The **Show** setting allows you to enable/disable different fields on the Create New Task page. This setting allows you to hide unwanted fields and elements from the page and reduce clutter. Disable all checkboxes to immediately go to the Task Execution page or create the Task. The **After Creation** setting determines whether the Task Execution page is displayed or not.

Action Type	Create Task
Task Type	Simple Task
Show *	<input checked="" type="checkbox"/> Top buttons
	<input checked="" type="checkbox"/> Task Type
	<input checked="" type="checkbox"/> Status
	<input checked="" type="checkbox"/> Created by
	<input checked="" type="checkbox"/> Allowed Assignee
	<input checked="" type="checkbox"/> Assigned to
	<input checked="" type="checkbox"/> Name
	<input checked="" type="checkbox"/> Description
	<input checked="" type="checkbox"/> Predecessors
	<input checked="" type="checkbox"/> Lead time
	<input checked="" type="checkbox"/> Due date/time
	<input checked="" type="checkbox"/> Estimated
	<input checked="" type="checkbox"/> Start Task options
	<input checked="" type="checkbox"/> Completion action
<input checked="" type="checkbox"/> Bottom buttons	
Start Task	Default
After Creation *	<input checked="" type="checkbox"/> Show Task Execution page

If all buttons are disabled, and enough information is defined in the Action to create the Task, it is possible to create a Task without any additional user input needed and (optionally) redirect to the Task Execution page for supplying, for example, Task Specifications to the created Task (or Workflow).

### Assisted QA Tool

This custom Action Type is available in all action contexts with Document Lists.

- Project Documents (Table)
- Project Bill of Materials (Table)
- Document Search Results (Table)
- Cart Documents
- My Approvals (Table)

To configure the selected Action button for Assisted QA, specific properties are to be updated.

**Assisted QA Tool: (Mandatory)** Select the QA Tool that you want to open, when the icon is selected in the menu. If more than one QA tool is configured, then the list of all the available QA tools are viewable in the drop down.

### How to Create a Custom Action Button

Follow the steps below to create a custom Action button:

1. In your custom Menu, use the toggle top left to switch to **Actions**.



2. Select the page/section you would like to customize.
3. Select the Action type you would like to add from the **Action Gallery** and drop it into the location where you want to show it.
4. Make sure to select your Action and inspect the settings in the table below it. You can now change settings such as Label, Visibility, Rendering, etc. A preview of your button is displayed in the header of the settings panel. Also see: [Action Settings](#) on page 118.
5. Once you are done, save your Menu.



**Note:** To see the Menu changes in effect, any User assigned this particular Menu needs to logout and login.

### Update a Custom Menu through the WebCenter User Interface



**Note:** You cannot edit the **Default** menu.

1. On the **Admin > Preferences > Menus** page, click the name of the menu you want to update.
2. On the **Edit Menu** page, edit your menu as desired (as explained in [Create a Custom Menu](#) on page 108).
3. Click **Save** at the bottom of the page when you are done editing the menu.

## Create a Custom Project Details / Document Details Menu through the User Interface

You can create a custom menu item for **Project Details / Document Details** page. For example, you can create a menu item for adding a **Saved Search** using **SmartNames**.

You can also specify the visibility of this menu item for particular **groups** or for certain types of projects.

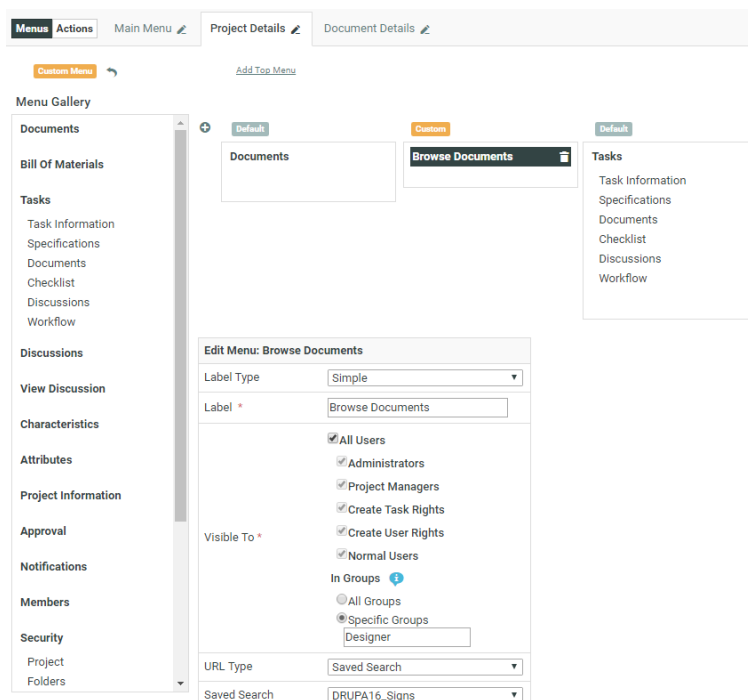
1. On the **Admin > Preferences > Menus** page, click **Add Menu**.
2. On the **Add Menu** page, enter a **Menu Name** and **Menu Description** for your new menu.
3. Click the type of menu you want to customize: **Project Details** or **Document Details**.

In the menu builder, you will see all the menu items of a default **Project Details** or **Document Details** menu.

On the left hand side, you can see the **Menu Gallery** containing the default menu items in bold, and the default sub menu items under them.

On the right side, you can see the **Menu Builder Canvas** (which is a graphical representation of the menu). This reflects any changes you make.

At the bottom, you can see and edit the details of the menu or sub menu item currently selected.



4. Edit the menu item. Select the **URL Type** as:

- **Saved search** if you are configuring a **Saved Search** as the menu item. Select your search from the **Saved search** drop down list below.
- **Attribute Category View** to configure a menu item with a specific **attribute category view**. Specify the **Name** as the **attribute category view name**.





**Note:**

The name entered here has to match the custom Attribute Category View name of the Attribute Category (of the current Project or Document).

Your users can edit the attribute values and save them from this custom view.



**Note:**

From this **Project Details attribute category view**, the users cannot:

- change the attribute category.
- export or import the attribute category.

Read also [Use Case: SmartName Search to find Related Projects](#) on page 252.

5. Optionally:

You can assign a **Project Details** menu item for a certain group of **Projects** having a specific [Characteristic](#). This allows you to create menu items (for example, dedicated Saved Searches) visible only in certain types of Projects.

1. [Create a specific Characteristic](#) for configuring a menu item. You can create characteristics for your custom menu items as well as the default ones.
2. [Create a Custom Project Details menu](#) or select the default menu item to edit.
3. Select the specific Characteristic in the **Project Visibility** field. You can select this from the drop down list.

This menu item will appear in the **Project Details** page only if the specified **Characteristic** was assigned to the **project** or the **template**.

As an administrator, you can switch this on and off in the **Project Details > Characteristics** page.

6. Assign the menu to the user, group or company you created it for.

## Create a Custom Menu Using XML

You can create a custom menu for each category of users, to make it more convenient for them.



**Note:**

Menus are XML files, so you can edit them using an XML editor (you can find various freeware XML editors on the internet, for example XML Marker or Notepad++).

For more details on how to edit the XML files to create custom menus, you can read [Create a Custom Menu](#) on page 1094 in the WebCenter Customization Guide.

You will need to:

1. Determine which menus a particular group of users needs, and which menus they don't need.
2. Download the default menu to use as a starting point (click the **Download Menu** link corresponding to the **Default** menu, then save it to a file when it opens in your browser).
3. In an XML editor, remove the menu items that are not necessary for those users.

This allows you to simplify the WebCenter interface, especially for occasional users. For example, you can create a menu that only contains **My Work** for approval users.

4. Add custom menu items, to link to the WebCenter pages of your choice.  
This allows you to make the pages most used by your users more accessible. For example, you can add menu items linking to saved searches, or to project creation from a specific project template.
5. When you are done editing the menu file, save it under a meaningful name.
6. Upload your custom menu:
  - a) click the **Menu Upload** button on the **Menus** page
  - b) on the **Menu Upload** page, browse to your XML file,
  - c) give your custom menu a **Name** and a **Description**,
  - d) click **Upload**.
7. Assign the menu to the user, group or company you created it for.
8. Log in to WebCenter as one of the users to which you gave the custom menu, and check whether the menu works.

### Update a Custom Menu Using XML

To update a menu you have created:

1. On the **Menus** page, click the **Download Menu** link corresponding to the menu to update.
2. Edit it in an XML editor (see the WebCenter Customization Guide).
3. On the **Menus** page, click the **Menu Update** link corresponding to the menu to update.
4. On the **Menu Update** page:
  - a) browse to the XML file you edited,
  - b) change the menu's **Name** and / or **Description** if necessary,
  - c) click **Update**.

This updates your custom menu.



**Note:** You cannot edit the **Default** menu.

### Menu: Visibility Groups

You can decide the **group visibility** of a menu item present in the **Main menu / Project Details / Document Details** page.

For example, you can create a Project details menu item with a custom **Saved Search** using **SmartNames** and make it visible only to a particular group.

Follow the steps below:

- On the **Admin > Preferences > Menus** page, select the menu.
- Click the type of menu for which you want to edit the visibility: **Main menu** or **Project Details** or **Document Details**.

At the bottom, you can see and edit the details of the item currently selected.

- Edit the menu item to limit the **visibility**. Specify the **Visible To > In Groups** as **Specific Groups**.

If you want to limit the menu's visibility to certain groups, select **Groups** and enter the names of the groups that can see the menu, separated by a semicolon (example: GROUP1; GROUP2). You can see this example when hovering on the field.

## Customize the Project Details Menu Using Characteristics

You can assign a **Project Details** menu item for a certain group of **Projects** having a specific *Characteristic*. This allows you to create menu items (for example, dedicated Saved Searches) visible only in certain types of Projects.

1. [Create a specific Characteristic](#) for configuring a menu item. You can create characteristics for your custom menu items as well as the default ones.
2. [Create a Custom Project Details menu](#) or select the default menu item to edit.
3. Select the specific Characteristic in the **Project Visibility** field. You can select this from the drop down list.

This menu item will appear in the **Project Details** page only if the specified **Characteristic** was assigned to the **project** or the **template**.

As an administrator, you can switch this on and off in the **Project Details > Characteristics** page.

## Delete a Custom Menu

To delete a custom menu:

1. On the **Menus** page, click the **Delete Menu** link corresponding to the menu to delete.
2. Click **OK** in the confirmation dialog.
3. If your menu is assigned to users and / or companies, you need to assign another menu to them. In the **Menu Deletion** page:
  - a) Select the new menu to assign to them.



**Note:** This will assign the same menu to all those users / companies. If you want them to have different menus, you need to edit the users / companies individually from the **Users** or **Companies** page.

- b) Click **Delete**.

## 3.4.7. My Work Preferences

The **My Work** preferences allow you to define what users can see on their **My Work** page.

### Default and Custom My Work Pages

As an Admin, you can define a default **My Work** page, that will be available to all WebCenter users by navigating to **Preferences > My Work > Default My Work Setup**

You can also define custom **My Work** pages for specific users or companies, when editing that user or company (see [Create a User](#) on page 289 and [Create a New Company](#) on page 280).

Users can then customize their personal **My Work** page to a certain extent, by adding or removing predefined sections (using **My Work > Edit My Work Setup**).

Admin Users can define which sections are available for specific groups or user types.

In the **My Work** preferences, you can:

- create a new **My Work** section (to use in the default or custom **My Work** pages),
- change what the default **My Work** page looks like.

### System History Logs

All My Work section related events like

- **My Work section created**
- **My Work section deleted**
- **My Work section changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

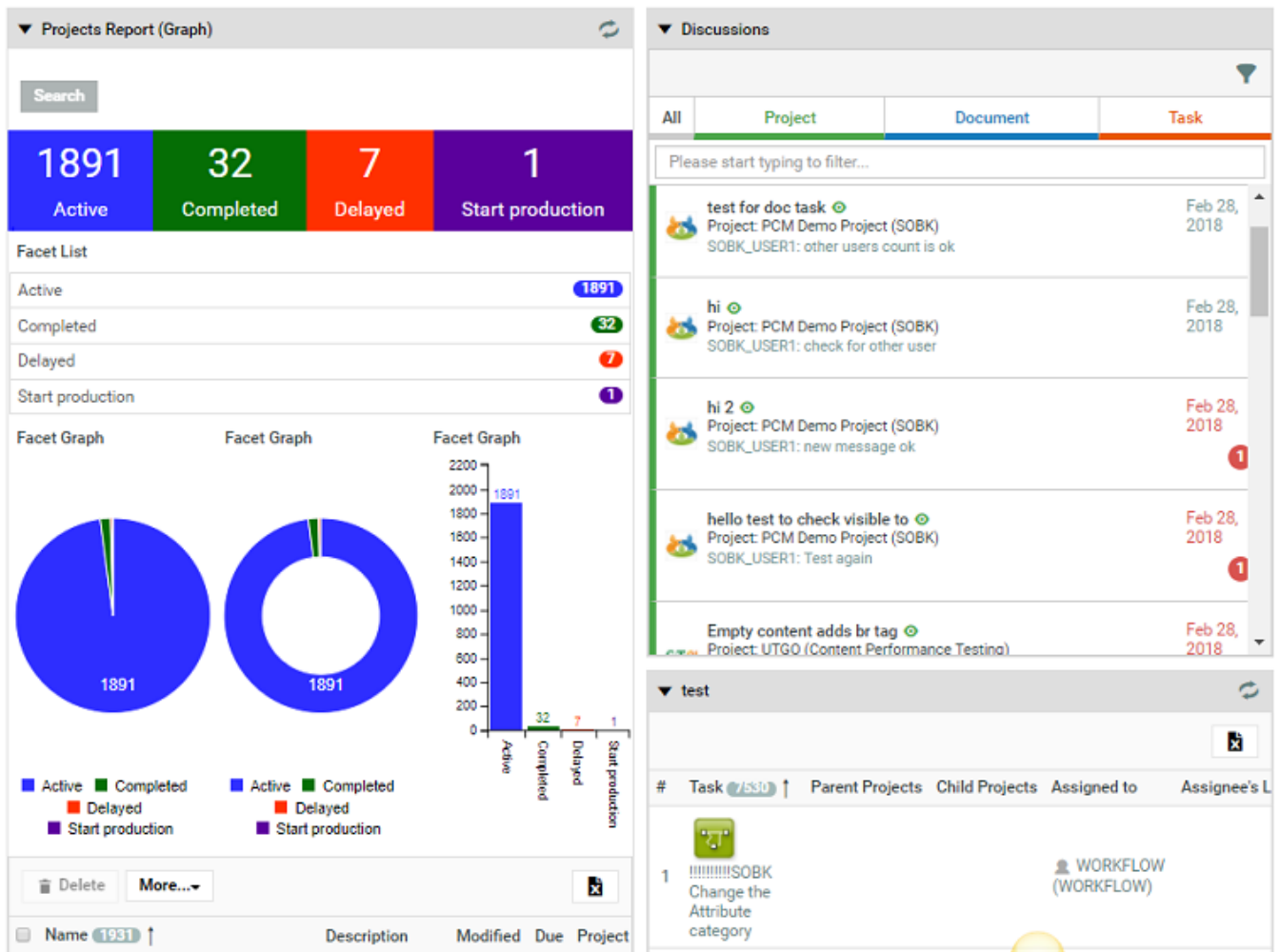
### About My Work page

A **My Work** page can be customized using various blocks that are available.

#### My Work

[Edit My Work Setup](#)

This text can be translated



The screenshot displays the 'My Work' interface. On the left, the 'Projects Report (Graph)' block shows a summary of project statuses: 1891 Active, 32 Completed, 7 Delayed, and 1 Start production. Below this is a 'Facet List' and three 'Facet Graph' visualizations (two donut charts and one bar chart). On the right, the 'Discussions' block shows a list of messages with filters for Project, Document, and Task. Below the discussions is a 'test' block containing a task card for 'Change the Attribute category'.

### Default My Work Sections

WebCenter has the following default sections, that you can use in the default and custom **My Work** pages:

This section...	will show...
<b>My Approvals</b>	a list of documents a user has to approve or reject.
<b>My Recently Submitted Approvals</b>	a list of documents a user has recently approved or rejected.
<b>My Approvals to Follow Up</b>	a list of documents for which a user is <b>Approval Master</b> .
<b>My Tasks</b>	a list of tasks assigned to a user
<b>My Recently Handled Tasks</b>	a list of tasks a user has recently handled
<b>My ToDo List</b>	shows Approvals and Tasks to be done by the user

### Custom My Work Sections

You can create a My Work section from any html page. You can define which users will be able to see and use the sections you create, and you can even specify the height the section will take in the page. For details, see [Custom My Work Section](#) on page 127.

### Custom My Work Section

To create a section to use in **My Work** pages, you need an html page, whose content will be shown in the section.

1. Click **Admin > Preferences > My Work**. The **My Work Sections** page appears.
2. Click **Create New My Work Section**.
3. Give your new section a **Name**.
4. In the **Type** option, indicate if this section will show:

- a HTML page specifically designed for this purpose (**Generic**),



**Note:** Please contact Esko's Professional Services if you require such a web page.

- a **Saved Search** (a search you have saved, see [To Save a Search](#) on page 582 for more information),
- an **External Web Page**.



**Note:** We recommend you do not add WebCenter pages as **My Work** sections.

5. If you have chosen to show a saved search, select the **Saved Search** to show.
  6. If you have chosen to show an external web page, enter or paste its address in the **External Web Page** field (for example: `http://www.esko.com`).
- For saved searches and external web pages, the **URL** field is filled automatically by WebCenter.
7. If desired, you can change the height of the section.

To do this, add `&h=` followed by the desired height in pixels at the end of the **URL**. For example `iframe.jsp?url=http://www.esko.com&h=400` has a height of 400 pixels.

WebCenter calculates the width automatically.

8. In **Scope**, choose which type of users will be able to use this section in their **My Work** page:

- **All Users,**
- **Administrators,**
- **Project Managers.**



**Note:** You can also change this for the default **My Work** sections.

9. You can use groups to further filter the users that will be able to see the section. In **Role Groups**, choose either:
- **All Users** if you want all users of the type specified in **Scope** to be able to use the section,
  - **Specific Groups** if you want to restrict the section's visibility to specific groups (within that user type).

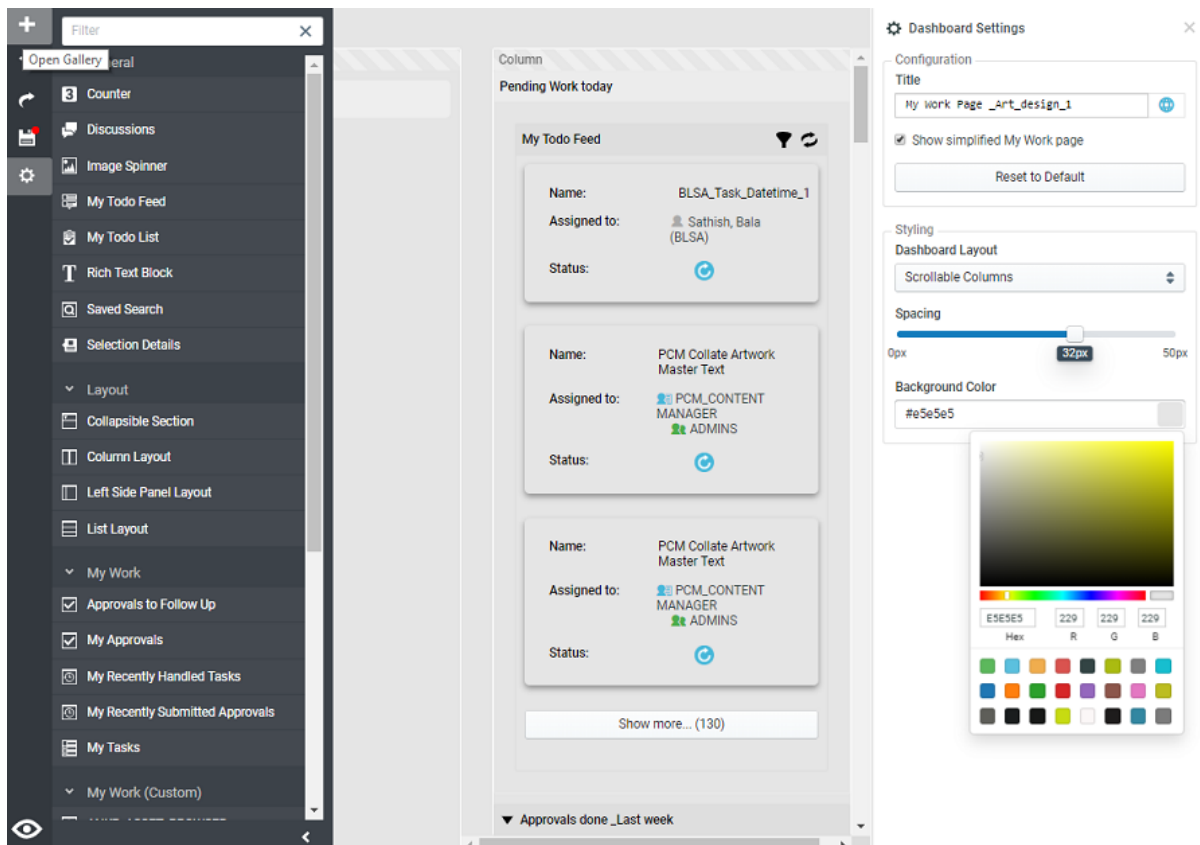
In this case, select the groups which will be able to use this section.

10. Click **Create**.

### Edit the Default My Work Page

You can customize and setup **My Work** page for all the users. Admin users can access it from **Admin > Preferences > My Work > Default My Work Setup**.

You can drag and drop the various blocks from the dashboard builder drop-down in the right hand side.



Following options are available in the drop down:

- **All:** This option displays all the blocks that are available.
- **My Work :** All the available blocks of **My Work** Section are displayed. Default blocks available are

- **Approvals to follow up** Displays the list of Documents and their current Approval status for which the current User is set as their Approval Master
- **My Approvals** Displays the list of Documents waiting for approval decision from the current user.
- **My Recently Handled Tasks** Displays Tasks that the current user has completed in a given time.
- **My Tasks** Displays the pending Tasks, waiting to be handled by the current User.
- **My Todo list** Displays a merged overview of all Task and Approvals for the current User.

This block has the following configurable parameters which are all enabled by default:

- **Show Tasks:** Displays all the pending tasks.
- **Show Approvals:** Displays all the pending approvals.
- **Categorize by Time:** You can specify if the block should have categories by time or no categories.
- **Maximum Height:** Specify in Pixels or in percentage and by default has no value.



**Note: My Work** section can only be added once to the Dashboard.

- **Layout:** You can drag the layout blocks to customize the look of the dashboard. This is similar to the customizing your search results dashboard. Read more about layouts at [Configuring the Search Dashboard Layout and Blocks](#) on page 259

- **General**

- **Discussions Widget:** You can add this to view the current discussions you are part of. You may choose to display Project or Task or Document discussions or all the discussions. You can enable **Always show Mobile View** to view discussions in a compact format.
- **Rich Text Block:** You can add a block of text and also display the translations of the text in the languages of your choice.
- **Counter:** You can specify a **Saved Search** and the results of the search will be counted in the Counter. Read more here [Building a Search Based Counter](#) on page 260
- **Image Spinner:** Read more about this block [Image Spinner](#) on page 265

- **My Work (Custom)**

This section contains all defined custom My Work Sections of the system.

### Menu Options in My Work Page

You can perform actions in the **My Work** page using the menu options

- **Undo / Redo:** To perform Undo / Redo actions in the My Work page.
- **Show simplified My Work page:** Enable this toggle in the **Edit My Work Setup** to display the My Work page with no links to Project and Document details page.
- **Reset to Default:** Admin users or the user can revert the **My Work** page to default settings by clicking this button.
- **Save:** Any changes done will be saved.



**Tip:** To make the page mobile friendly, define minimum widths on columns to ensure that the columns will reflow to a new row and fit horizontally.

### Edit My Work Page for a User

Admin user can set up a customized My Work dashboard to any user.



**Note:** When a user has no custom setup he/she will see the company **My Work** setup or **Default My Work setup**.

Set up a custom **My Work** setup for the user, follow the steps below:

1. Click **Admin > Users > My Work Setup** tab.
2. Click on **Setup Custom My Work** to edit and configure a dashboard for the particular user.
3. You can customize the **My Work** dashboard as described here [Edit the Default My Work Page](#) on page 128
4. Click **Save** to make changes.

Similarly a customized My Work page can be set up for a Company's user. Read more about it here [Set up My Work page](#) on page 282.

### 3.4.8. Dashboard Preferences

Admin users can view the global list of dashboards by navigating from **Preferences > Dashboards**. These dashboards can be used as:

- Menu Items
- Start Page
- Landing Page of a Project or Default landing page of all projects
- My Work

### 3.4.9. Reports

You can derive a **Report** of selected parameters of a document derived by querying the database. You can produce Tables, Pie Chart and Bar Chart in these reports and output them in PDF, DOCX, XML, XLS, CSV, TXT, RTF and HTML formats. This feature uses the Jasper Reporting engine to create these reports. You can customize the terminology, look, logo's and the parameters.

Use Reports to:

- calculate averages and compare actuals to targets (KPI's).
- create charts, such as Bar Chart and Pie Chart.
- to create a general report and related sub-reports.

The report is created based on a **report template**. There are built-in reporting templates available to admin users. However, you can upload custom reporting templates as a JRXML file or as a ZIP file. If you would like to add supporting files such as images and stylesheets, you can create a ZIP with the JRXML file, images and stylesheets.

Using WebCenter Reports, you have the:



- Ability to calculate averages and compare actuals to targets (KPI's).
- Ability to create charts, such as Bar Chart and Pie Chart.
- Freedom on terminology, look, logo's, amount of detail required to be displayed.
- Choice of report output to PDF, DOCX, XML, XLS, XLSX, CSV, TXT, RTF and HTML.
- Ability to create one PDF with a general report and iterate over a set of sub-reports



**Note:**

- You can create these reporting definition templates in **iReport**. Read more technical details about this in: [Custom Reporting](#).
- You need database access to derive these reports and if you are using WebCenter as a SaaS customer, you cannot generate these reports yourself.
- If a report is generated for a template containing background image in the DOCX format, then the output will not have the background image.

You can access these reporting templates in **Admin > Preferences > Reports**.

**System History Logs**

All Report related events like

- **Report created**
- **Report deleted** and
- **Report changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

**Accessing WebCenter Reports**

The WebCenter Reports feature can be accessed by an Admin or member of the Admin group.

1. Log in to WebCenter as an Admin user.
2. Click **Admin > Preferences > Reports**.
3. The **Reports** page appears with the list of available reports.

This page displays the report name, report actions, report description, last modified and the user who uploaded the report (Creator). The Reports page also displays **Upload Report, Download Report, Update Report** and **Delete Report** buttons.



**Note:** The built-in reports cannot be deleted.

4. Click the desired report name to go to report details page, where you can run the report.

**Types of Reports Available**

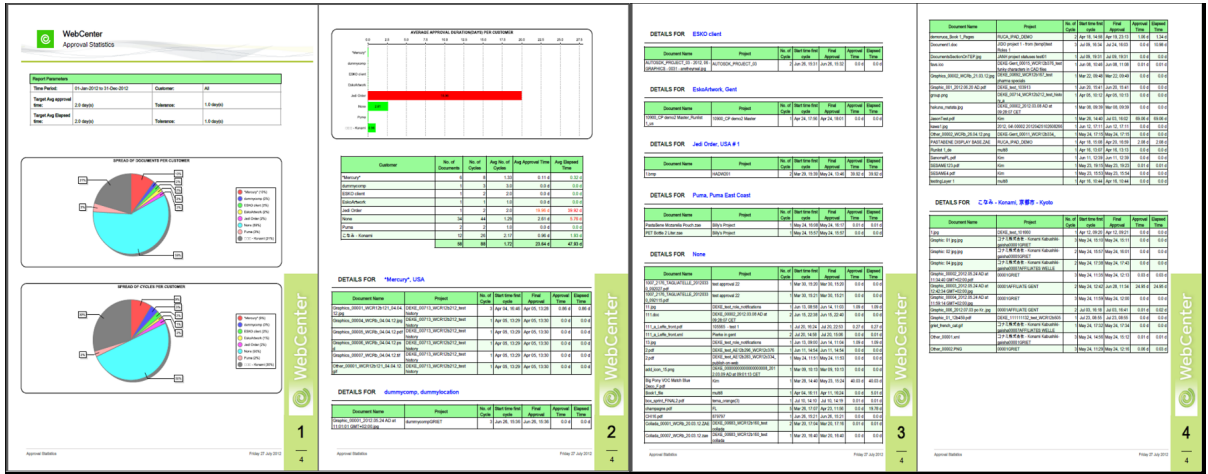
The WebCenter Reports comes with two default reports. The default reports have a typical WebCenter look. However the report definitions can be downloaded and changed in **iReport** to a different look.



**Note:** Reporting is a separate license in WebCenter. Without this license you can only run the default reports.

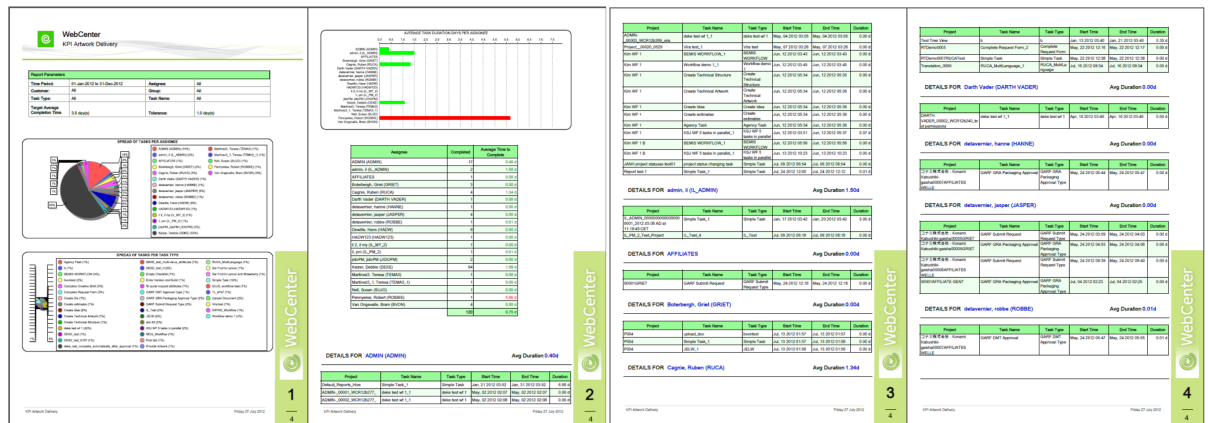
The default reports provided are as follows:

- **Approval Statistic (built-in) report:** This report is on duration of approvals. This report has lots of parameters to filter the report on customers, duration and influence on what is shown in the report and how it is displayed.



The screenshot displays the 'WebCenter Approval Statistics' report. It includes a summary section with filters for Time Period (11-Jan-2012 to 31-Oct-2012), Customer (All), and Report Type (Approval). Below this are two pie charts showing the 'SPREAD OF APPROVALS BY CUSTOMER' and 'SPREAD OF APPROVALS BY DOCUMENT'. The main body of the report consists of four detailed data tables for projects: 'Mansory, USA', 'dummyscomp, dummyscomp', 'ESGIO client', and 'EduAnkNet, Gert'. Each table lists document names, project names, start and end dates, and approval counts.

- **Task Management (built-in) report:** This report is on the duration of tasks. This report comes with many parameters, for example to filter on a task type (showing all CAD Design tasks and disregarding all other tasks).



The screenshot displays the 'WebCenter Task Management' report. It includes a summary section with filters for Time Period (01-Jan-2012 to 31-Dec-2012), Customer (All), and Task Type (All). Below this are two pie charts showing the 'SPREAD OF TASKS BY CUSTOMER' and 'SPREAD OF TASKS BY TASK TYPE'. The main body of the report consists of four detailed data tables for task types: 'ADMIN (ADMIN)', 'ADMIN (ADMIN)', 'ADMIN (ADMIN)', and 'ADMIN (ADMIN)'. Each table lists project names, task names, task types, start and end dates, and task counts.

- **Attribute Category (Built In) Report:** Built-in reports are available for Attribute Category in both PDF and Excel formats.

By default, these reports are not enabled in the **Project's** or **Document's** Attributes page. To enable built-in reports follow the below configuration:

1. Download one of the built-in the reports
  - Sample Attribute Category Excel - built-in report template for XLSX format
  - Sample Attribute Category PDF - built-in report template for PDF format
2. Upload a new report as **Default Attribute Category Report**. You can also rename the report in the name of the attribute category for which report has to be generated.

Download the built-in report and upload new report as name **Default Attribute Category Report** or name the report exactly as the Attribute Category in the required Project or Document for which report is generated.

To get a specific project or document attribute category as a built-in report, upload the template ZIP file with the report name same as the project or the document attribute category name. Report name can also contain optional suffix.

Example: If the attribute category name is - Doc Attr Category, then there can be multiple reports with different names such as Doc Attr Category\_PDF, Doc Attr Category\_Excel, Doc Attr Category\_CSV.

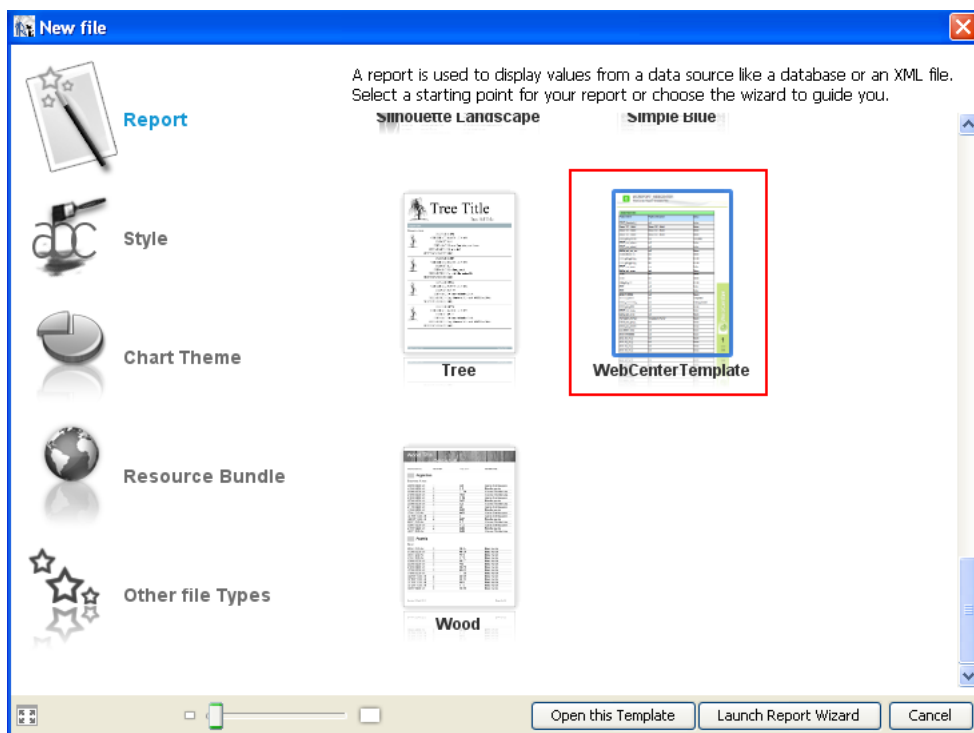


**Note:** To change the template, download the Jasper Report template, update using Jasper Studio and upload back to WebCenter.

You can also create a custom report using **iReport** tool. To create a new custom report, you can start from a blank template, use the template provided by Esko, or just modify the built-in reports. Upload these to WebCenter and then let WebCenter run the report. One report design is typically used over and over again, for example to create a weekly or monthly report.



**Note:** To learn how to create such reports, read the **CustomReport.doc** document.



## Configuring a Report

To configure a WebCenter Report:

1. Click on the desired report name link on the **Reports** page.

2. In the **Reports Details** page that appears, specify the **Report parameters**.

This can be very simple or very complex depending on the amount of parameters foreseen by the report design. Most often, the time span on which to calculate the report is a parameter. But equally so the report could accept a customer ID (a drop down of customers will be shown) or an option to show more or less detail or what type of charts to use.

The mandatory fields (parameters) are marked by an \*.

3. Under **Report Output**:

- a. Click the **Upload Report to Project** check box, if you want to upload the generated report directly to the required project folder. When it is not selected, the report is generated on the User Interface.
- b. Specify the report **Document Name** and output **Format**. By default PDF is the output format.



**Note:** XHTML format is not available if the **Upload Report to Project** option is selected.

- c. Select the **Make Report viewable in WebCenter Viewer if applicable** option to start the view file generation task when the report document is uploaded to the WebCenter project. This option is applicable to reports in the PDF file format and MS Office file formats if configured in WebCenter.
4. In **Report is visible for groups**, select or enter the name of the groups that can run this report. To remove a selected group, click the minus sign in front of its name.
  5. In case the jrxml defines projectId as a parameter (with uiTypeID set to PROJECT), an additional **Project Report** checkbox appears on the report details page. In case this option is enabled, this report will only be used as a project report.

You can also set which roles in the project(s) can run this report (in addition to the groups you defined). This way it is possible to create a report that can only be run by the CSR or the SALES person but not by other people (for example suppliers and other external people).

In **Report is visible for roles**, select or enter the name of the roles that can run this report. To remove a selected role, click the minus sign in front of its name.

6. Click the **Save** button, to save the parameters. The next time you want to run this report, you can use the same parameters. If you want to run the same report with two sets of saved parameters you need to upload the report definition twice.

## Running a Report

To run a WebCenter Report:

1. Click on the desired report name link on the **Reports** page.
2. In the **Reports Details** page that appears, specify the **Report parameters**.

This can be very simple or very complex depending on the amount of parameters foreseen by the report design. Most often, the time span on which to calculate the report is a parameter. But equally so the report could accept a customer ID (a drop down of customers will be shown) or an option to show more or less detail or what type of charts to use.

The mandatory fields (parameters) are marked by an \*.

3. Click the **Run Now** button. The report is generated as per your specification. The **Report Successfully created** message appears in the Reports Details page.



**Note:** It is recommended to run **Find Lost Documents** built in report during off peak hours, as it can utilize lot of system resources.

### Built In Reports

Built In reports are system reports which can be usually accessed only by Administrators. Administrators can view the report but it is not possible to update, delete or download the built-in reports.

To view the built in reports, navigate to **Preferences > Reports**. Click on the report name to view the report details page. Administrators can modify the **Report Name**, **Description** and select **Groups** which can be provided access to run the report manually.

Groups which has permissions assigned, can access the reports from **Search > Reports** page.

### Find Lost Documents Report

A lost document is a document in the project for which no files are found on the File Store. Either the file has been removed from the File Store or the document is of the URL type.

The Administrators can run this report in the reports page by selecting the **Find Lost Documents**.

On running the report, the page displays an overview of Lost Documents. Number of lost documents count is indicated at the top of the page.



**Note:** Run this report during the off peak hours, as it utilizes a lot of system resources and may slow down the WebCenter Application.

The Lost Document report is displayed in a tabular form in which the following details of each document is shown:

- Document Name
- Document ID
- Version ID
- Version Number
- File Number

The user can go to the Document Details page by clicking on a Document Name.

### Document Project History Report

WebCenter has a built-in report for **Project History Report**. You can run this report from the **Reports** and select **Project History Report**.

On execution, **Search Projects History** page is displayed with an overview of projects. Administrator users can see all the projects, while the other users can see projects they manage only.

Search History Project is displayed in a list with a sequence number, along with

- Project Name
- Description
- Project Status
- Project Manager
- Creation Date
- Modification Date

To view a project history of any project, click the **Project Name**. You can filter the results on **Manager Last Name**, **Manager Group Name** or **Modified date** or **Project Status**. You can also restrict the number of records displayed in a page.

The order of the results can be changed by clicking on a column header in the results table or by changing the **Sort By** option in the filter section. Select **Print** to print the report.

### Sample Attribute Category Report

This is an built-in report that can be run by the admin users.

By running the report, you can download the list of all the attributes and its values along with the document references. This report can be run for both project attribute category or document attribute category.

There are two Sample Attribute Category built in reports based on the way it can be exported:

- **Sample Attribute Category PDF** : Best suited to get the reports in the pdf format along with thumbnails for reference documents
- **Sample Attribute Category Excel**: Best suited to get the reports in sheets separately for each document type

To generate this report for the first time:

1. Navigate to **Reports > Sample Attribute Category (PDF / Excel)**.
2. **Run Report** page is opened.
3. You can select **Upload Report to Project** option and specify the project name, document name and folder in which the report has to be uploaded.

The report is generated in the format selected.

### How to get the Attributes Report in the Attributes Page

Download **Sample Attribute Category Excel/PDF (built-in)** report from the **Reports** page. Upload it as a new report with the name as **Default Attribute Category Report** to get the **Attribute Report** icon in the **Attributes** page of all the documents and projects which has attribute category specified.



**Note:** Attributes Reports can be accessed by any user based on the **Reports** permissions.

In case you want only specific **Project/Document** Attribute Category to get built-in report, upload the template ZIP file with report name same as the **Project/Document** Attribute Category name. The Report name can also contain optional suffix.

This report will show the label of the Attributes as defined in the **Create New Attribute** page and also the last modified date of the attribute. If SmartName or internationalization is used for the attributes, or the attributes is of Document Reference type, then only the attribute names are shown.

**Example** : If the attribute category name is **Attribute1**, then the uploaded report should be named as **Attribute1XXX**

Attributes page in the **Project/ Document** with the specified **Attribute Category** will have the **Attribute Report** icon.



**Note:** If you want to change the template of the report, then download the Jasper Report template. Update the reports using Jasper Studio and upload back to WebCenter.

## Managing Reports

The Reports page also helps you in managing the existing reports. You can **Download Report**, **Update Report** and **Delete Report** using the inline buttons.



**Note:** The built-in reports cannot be deleted.

Reports

Report	Description	Creator	Modified
Approval Statistic (built-in)-Testing	A test report...	ADMIN	Dec 19, 2013

### 3.4.10. CHILI

You can edit your documents online using WebCenter - CHILI Publish integration.

#### Configure WebCenter-CHILI Server Connection

Administrator users can configure the CHILI server connection by navigating to **Chili > CHILI Setup** .

In the **Chili Setup** page, the following fields must be specified:

- **Name** : Used to identify the CHILI setup
- Address to the **CHILI server URL** example: <http://chili01/CHILI/main.asmx>
- **CHILI Cloud Connection**: when checked, WebCenter will connect to CHILI Cloud server using REST API's.
- **Use REST API**: when checked WebCenter will connect to CHILI using the REST API instead of the SOAP API
- **CHILI Share** (only available if 'Use REST API is unchecked) example: \\chili01\chilishare
- **CHILI Environment Name** – name of the CHILI environment
- **User login/ User Password** – user login and password (defined within the CHILI environment)
- You can choose to select the following optional fields
  - **CHILI View in side by side Preview mode** to open the side by side view (Document Attribute Category and CHILI view side by side) from thumbnail. [View in Preview Mode](#). When this option is enabled, **Show Content based side by side Preview** option is visible to show PCM -optimized view when enabled.

Users can also view the Attributes and the Chili document side by side in the Preview tab( which can be customized ) and this option requires Packaging Content Management and Chili license.

- **Trim leading and trailing spaces from text before applying to CHILI Variable** to remove any extra spaces present in the text
- **Exit CHILI side by side Preview after saving a new version** When this option is selected, the CHILI Side-by-Side Preview is closed and return to the previous page on saving the CHILI document as a new version.



**Note:** Users can also view the Attributes and the Chili document side by side in the Preview tab( which can be customized ) and this option requires **Packaging Content Management and Chili** license.

On **Save**, the configuration is validated and stored in the WebCenter.

On the page, you also find a drop down **Edit Alternative CHILI Setup**: Choose the CHILI setup from the drop down of the configured CHILI setup instances. There is an additional option to **Create New Setup**. You can setup multiple CHILI servers with this option and it is also possible to connect to the same server with different settings.



**Note:** This is required only if multiple CHILI servers are to be setup.



**Note:** When using the REST API, WebCenter will connect to CHILI using the newer REST endpoints instead of the SOAP API. This is recommended for connections to CHILI 5.6 or higher. For versions older than 5.6, only the SOAP API can be used. Starting April 2022, all future versions will no longer support the SOAP API and the "Use REST API" flag will be mandatory.

### Chili Preview

You can preview the CHILI documents and edit their content when the **View in Preview mode** is enabled in the CHILI setup.

When you click on the thumbnail of any CHILI document, you can preview the chili document along with all the referenced contents and attributes (optionally) for the document side by side with the CHILI editor. Preview of the document is exited or reloaded based on the selection made for the **Exit CHILI side by side Preview after saving a new version** option in the **CHILI Setup configuration**.

You can also show values of a pre-configured document dashboard in the content block.

Following are the the hardcoded dashboard names.

- CHILI\_SIMPLE\_ATTRIBUTES: To render the attributes of CHILI document
- CHILI\_TEXT\_DETAILS: To render additional text details
- CHILI\_IMAGE\_DETAILS: To render image details



**Note:** This functionality is available with PCM license only.

### Upload a CHILI Package

In the Document Types page, a new type "CHILI" will be added. This document type will only be visible if the right license is purchased.

A CHILI Package has the .zip extension. When uploading a zip file in the single document upload page, you will now get the possibility to select "CHILI Package" as Document Type. If you upload the CHILI package with the extension .chp, it will be automatically recognized as a CHILI package, without having to select it. However, this is not an official CHILI extension. It is a way to make the upload go easier (e.g. it can be used for multiple file upload).



### Locking behavior

When a user is editing a CHILI document in the editor, the document will be locked automatically. The document can be unlocked only manually, by saving a new version or by just exiting the editor without saving your changes as a draft. When the editor is opened in read-only mode, however, the document will remain unlocked.

When a user has no editing rights and has no specific workspace assigned, the document will be opened in read-only mode. The editor will also be opened in read-only mode when the document is locked by another user or if it's not the latest version of the document. In the read-only mode, the file can still be viewed, but no changes can be made. The save buttons are not shown, but approval buttons will still be shown to approver if an approval cycle is ongoing.

The CHILI administrator is able to set up a customized read-only view. WebCenter will look for a workspace named "Read-Only" on the CHILI server. Only if that workspace is not found, the default CHILI read-only mode will be loaded.

Note: Draft versions are saved as long as the document is locked. When the document is unlocked, the draft version will be removed. To reset the document, the user can simply remove the lock and start the editor again. To save the changes permanently, the user will have to save the document as new version.

### Download CHILI Documents

A user may want (or be allowed by the Administrator) to download different kinds of output of a CHILI document. Some will want to download the original CHILI package or the CHILI XML, while others want download a PDF file. An artwork creator will want the XML to update the master Illustrator document.

When the user wants to download a CHILI document, a page with the available formats will be shown. Users can have different permissions for different download formats. The 'CHILI Package' format is the default option in places where an explicit choice of a target Download Format is not available. If a user has none of the available Download Formats enabled for CHILI document type, he will not be able to download a CHILI document from within any Project.

The different download types are also supported in the SDK. A new parameter was introduced for the DownloadDocument.jsp SDK call

downloadtype: Name of the download format to download. If it is not specified, the default download type will be used.

Example:

[http://mywebcenter.mycompany.com/WebCenter\\_Inst/DownloadDocument.jsp?username=myusername&password=YWJjZGVm&docversionid=00002\\_0000000018&downloadtype=PDF](http://mywebcenter.mycompany.com/WebCenter_Inst/DownloadDocument.jsp?username=myusername&password=YWJjZGVm&docversionid=00002_0000000018&downloadtype=PDF)



**Note:** When a document is being edited (has a draft version), the downloaded version will not contain the changes of the draft.

### Setup of different download types for a CHILI WCR Document

In order to maintain a highly secure environment – enabling/disabling CHILI Download Formats is only available for an Administrator user and is done for individual User/Group at a single moment. User settings can be derived from a sum of Groups Download settings for all the Groups that the User is a member of.

When a new Download Type is defined on the system level it is initially disabled for all Users and Groups in the system.

There are two levels of enabling or disabling CHILI download types. You can either do this system wide or per user/group.

If you want to disable or enable a download type system wide, you can go to the page "Admin > CHILI > CHILI Download Types", where you have a checkbox with the available Download types. A default setup will have three download types pre-installed which are all enabled by default:

- Chili Package
- CHILI XML
- PDF

For the PDF output, PDF Export Settings named 'Default' must be defined at the CHILI server. An additional column is displayed at the 'CHILI download types' page with the name and availability check (icon) of the PDF Export Settings at the CHILI server.

If you want to set it per user or group, go to the user or group section and click on the user/group you want to give download rights. Then go to the download tab. You will see that the section CHILI Package is added, where all download types that are enabled system wide can be enabled or disabled (disabled by default) for that user or group.

For a user, if you click on "Use Group Permissions", the CHILI download types are also updated with those of the groups the user is in.

## Dynamically assign workspaces and constraints to CHILI Documents

CHILI workspaces can be assigned dynamically by matching workspace names with role names. When a user is assigned to a role in the project the CHILI document is in, WebCenter will look if the CHILI server has a workspace with the name of that role and assign that workspace upon loading the editor. E.g. If the user has the roles "Approver" and the CHILI server has a workspace "Approver", the CHILI editor will be opened in workspace "Approver".

If no workspace was assigned to the user, and that user has edit rights, WebCenter will look for the workspace name "Default" and assign it to the user. If the workspace "Default" was not found, the editor will open in real-only mode. If a user has multiple workspace/constraint matches, the user will have to select a workspace before the editor opens.

Note: For linked documents, the available workspaces are accumulated.

## Loading Assets into the CHILI Editor

An asset is a WebCenter document that is uploaded in the project document library. At the Project/Template > Configure > Document Templates page, an administrator user can select a project or a template to serve as a document library.

For the CHILI document, documents from the document libraries of all projects the current document version is linked to can be used as assets. The documents/folders will be filtered out by the WebCenter security settings. In case of a project document library, the user must have download rights for the document/folder, to be able to use it as an asset. There are no restrictions on using documents from a template document library.

The external assets panel shows a tree structure, where each project/template represents a top level folder. For each document/asset a thumbnail is shown.

To set this up, the CHIL administrator has to add an "External Assets" panel within the workspace and leaves point the "Directory List URL" and "Asset List URL" to the WebCenter SDK with the following calls.

**Directory List URL:**

`http(s)://<WebCenter_URL>/<WebCenter_Instance>/GetDocLibraryDirectoryList.jsp;jsessionid=%qs_sessionid%?docversionid=%qs_docversionid%`

**Asset List URL:**

`http(s)://<WebCenter_URL>/<WebCenter_Instance>/GetDocLibraryDocumentList.jsp;jsessionid=%qs_sessionid%?folderid=%id%&documentid=%qs_documentid%`



**Note:** We don't support "Search URL" and "Post URL" options. Note that these calls can also be used for image variables pointing to external assets.

### 3.4.11. Getting a list of existing projects

To get a list of existing projects based on given filter make a call to the following JSP page:

**GetProjects.jsp**

With parameters:

1. username
2. password
3. type

**Parameter description:**

- *type*: specifies category of projects to be listed. This field is mandatory. Supported values are:
  1. my favorite projects
  2. projects I am in
- *name*: limits returned projects to those having the specified string (*name* parameter) in its name. It's possible to use special characters like in WCR GUI filters and search fields. For example specifying "*name=Toy\*project*" returns both "Toyota project" and "Toy Story project" if they exists in WCR database. This is not applicable when *type* parameter is set to '6' (*type=6*). In that case the full name of required project (not case sensitive) has to be specified. This field is optional.
- *projectid*: ID of project to be returned. Ignored unless *type* parameter is set to '6'.

This SDK call can be utilized by project managers (PMs) or administrators.

If *type* parameter is set to '6' (project by ID or name), one of *projectid* and/or *name* parameters has to be specified. *projectid* parameter has precedence. In this mode *name* parameter has to contain a full name of the wanted project without any special "searching" characters.

**Example:**

To get list of all favorite projects of currently logged in user (PM or admin) that have "Active" status set use the following call.

[http://mywebcenter.mycompany.com/WebCenter\\_Inst/GetProjects.jsp?username=myusername&password=YWJZGVm&type=1&statusname=Active](http://mywebcenter.mycompany.com/WebCenter_Inst/GetProjects.jsp?username=myusername&password=YWJZGVm&type=1&statusname=Active)

To find projects managed by logged in user that contain particular string ("001") in their names use the following URL. The example returns the first set (page) of 200 projects. If there are more you get the rest by incrementing the *curpage* parameter value and calling the SDK again until it returns less than

200 records (projects) back. Note you can utilize *sorting* parameter to control what projects will be in the first returned set (page).

[http://mywebcenter.mycompany.com/WebCenter\\_Inst/GetProjects.jsp?username=myusername&password=YWJZGVm&type=3&name=\\*001\\*&curpage=1&pagesize=200](http://mywebcenter.mycompany.com/WebCenter_Inst/GetProjects.jsp?username=myusername&password=YWJZGVm&type=3&name=*001*&curpage=1&pagesize=200)

#### Returns:

Successful execution returns a list of projects conforming to given criteria(s). If a problem occurs, appropriate error message is returned.

```
<get_project_list>Getting a list of existing projects on page 141
  <project_list> <project id="00002_0000000135">
    <deleted>0</deleted> <name>a05</name>
    <description/>
    <manager_id>00001_0000000001</manager_id>
    <manager_type>user</manager_type> <customer_id/>
    <location_id/> <salesperson_id/> <category_id/>
    <created_date>1236947156000</created_date>
    <modified_date>1434620655763</modified_date>
    <is_template>0</is_template> <characteristic_list/>
    <attribute_list/> <attribute value_view_list/> <!--
    always empty # <folder_list/>
    <status_id>00001_0000000001</status_id>
    <due_date>0</due_date> <project_doc_list/>
    <project_creation_form>
    <project_name_show>SHOW</project_name_show>
    <project_manager_show>SHOW</project_manager_show>
    <customer_show>SHOW</customer_show>
    <description_show>SHOW</description_show>
    <due_date_show>SHOW</due_date_show>
    <upload_doc_show>SHOW</upload_doc_show>
    <replace_groups_show>SHOW</replace_groups_show>
    <invite_memebers_show>SHOW</invite_memebers_show>
    <set_attributes_show>SHOW</set_attributes_show>
    <set_thumbnails_show>SHOW</set_thumbnails_show>
    <set_planning_show>SHOW</set_planning_show>
    <set_status_show>SHOW</set_status_show>
    <default_planning_method>BACKWARD</default_planning_method>
    <bom_show>SHOW</bom_show> </project_creation_form>
    <autoname_option>2</autoname_option> <manager
    id="00001_0000000001"> <deleted>0</deleted>
    <name>ADMIN</name> <location id/>
    <last name>ADMIN</last name> <first name/>
    <email>admin@ad.min</email> <phone_number/>
    <mobile number/> <function/>
    <is_project_manager>0</is_project manager>
    <password last modified>-3600000</password last modified>
    <password forced_expired>0</password forced_expired>
    <deleted>0</deleted>
    <has_guaranteed_access>1</has_guaranteed_access>
    <max_sessions>-1</max_sessions>
    <ldap_user>0</ldap_user>
    <can_create_task_type>1</can_create_task_type>
    <can_create_user>0</can_create_user> <owner_id/>
    <n_consecutive_failed_logins>2</n_consecutive_failed_logins>
    <user_profile_id="00001_0000000001"/> </manager>
    <thumbnail_url>thumbnails/project.gif</thumbnail_url>
    <project_user_permission> <permission>
    <view>1</view> <add>1</add>
    <update>1</update> <delete>1</delete>
    <checkout>1</checkout> <download>1</download>
    <change_approval>1</change_approval>
    <change_task>1</change_task>
    <change_bom>1</change_bom>
    <can_manage_this_project>1</can_manage_this_project>
    </permission> </project_user_permission>
    <manager locaiton id="00001_0000000001">
    <location view id=""> <location id="">
    <deleted>0</deleted> <name/> <shortname/>
    <address1/> <address2/> <city/> <state/>
    <zip/> <country/> <phone/> <fax/>
    <company_id/> </location> <company id="">
    <deleted>0</deleted> <name/> <legal_name/>
```

```
<type/> <menu/> </company> </location_view>
</manager_locaiton> </project> <project
id="00002_0000000290"> <deleted>0</deleted> ... other
project description </project> ... more projects
</project_list>
<total_filter_projects>1</total_filter_projects>
<total_projects>48</total_projects>
</get_project_list>
```

## 3.5. Dashboard

### Create Dashboard

You can create a dashboard by clicking on **Create Dashboard** option. To know more about Dashboard Configuration, read [Dashboard Builder](#) on page 144.



**Note:** You can find five example dashboards in the list of dashboards. Use **Save As** option to make use of these dashboards. Note that every time the database script are run the dashboards are overwritten.

### Dashboard Functions

Dashboards can be created for either simply viewing some information or for editing the data that is shown or to create a new project.

### Import/Export of Global Dashboards

You can import or export one or selected dashboards from the list of Global Dashboard(s).

To export, select the dashboards and select **Export**. This generates an XML/Zip containing the full configuration of the Dashboard that can be used to migrate the Dashboard configuration to another WebCenter Instance.

To Import a dashboard, select **Import** from **Admin > Preferences > Dashboards**. Choose the XML file containing the Dashboards and click **Import**.

### View History

You can view the **Dashboard Created**, **Dashboard Deleted** and **Dashboard Changed** events when you click on this option. You can filter based on the date of the event or the event itself or by the last name of the user who made the change. History results can also be sorted in chronological order or by the type of notification or the user last name.



**Note:** Dashboard Changed event does not capture any changes made within the widgets in the dashboard.

### Delete Dashboards

You can delete a dashboard by selecting from the list and clicking on **Delete Dashboard(s)** option.

### System History Logs

All Dashboard related events like

- **Dashboard Created**
- **Dashboard Deleted** and

- **Dashboard Changed**

are recorded and stored in System History. Read this page on how to access the [records](#)

### 3.5.1. Dashboard Builder

#### Dashboard Name

Dashboard Name is a mandatory field in the dashboard. Ensure that the name provided is unique.



**Note:** If Dashboard is named **WELCOME** then it is loaded in the Welcome page and any dashboard named **CONTACT** is loaded on the Contact page.

#### Context

You can create Dashboards in the context of where it appears, like

- **Project**
- **Document**
- **Task/Approval**
- **My Work**
- **Unspecified**

There is an option to change the context of the Dashboard that you are building. Based on the context selected for the dashboard, the gallery is updated with different blocks.

#### Dashboard Functions

- **Edit Form:** Makes it possible to edit. Make sure to add a save button to be able to save the changes.
- **View (default):** Shows information about a Project or Document or Task.
- **Creation Form:** Only available for Projects. You can build a form to create a project from Dashboard.

#### Styling and Layout

There are several layouts available for Dashboards, namely:

- **Default** where the blocks are shown in a list
- **Scrollable Columns** where they allow you to scroll every column separately
- **Grid** where you can add blocks to a configurable grid
- **Menu** where you can see other dashboards that are components of the Dashboard

You can set the background color of the dashboard which is by default set to transparent.

All layout blocks have the Spacing and/or Padding parameter, which allows you to create visually appealing dashboards.


#### Conditional Formatting

When the dashboards are created in Project, Task or Document context, the rendering can be formatted using conditions. This works exactly similar to Search Results Formatting. Options available for conditional formatting depend upon the context of the dashboard.



**Note:** This option is not visible when the dashboard is created for unspecified context and in scrollable columns.

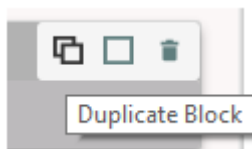
## Delete Blocks

You can delete any block in the dashboard by clicking the  (delete) icon on the right top corner of the block and the block is removed from the dashboard.

## Add Blocks

There are several ways to add blocks to a dashboard:

- **Drag and Drop:** You can drag blocks from the gallery and drop them in the desired location on the dashboard. Columns can also be rearranged or new columns can also be created with drag and drop.
- **Duplicate Blocks:** Dashboard blocks can be easily duplicated in the dashboard builder by clicking on the duplicate icon in the top-right of the block. This feature is useful, when you have a block that is already configured and a similar block as the existing block has to be created.

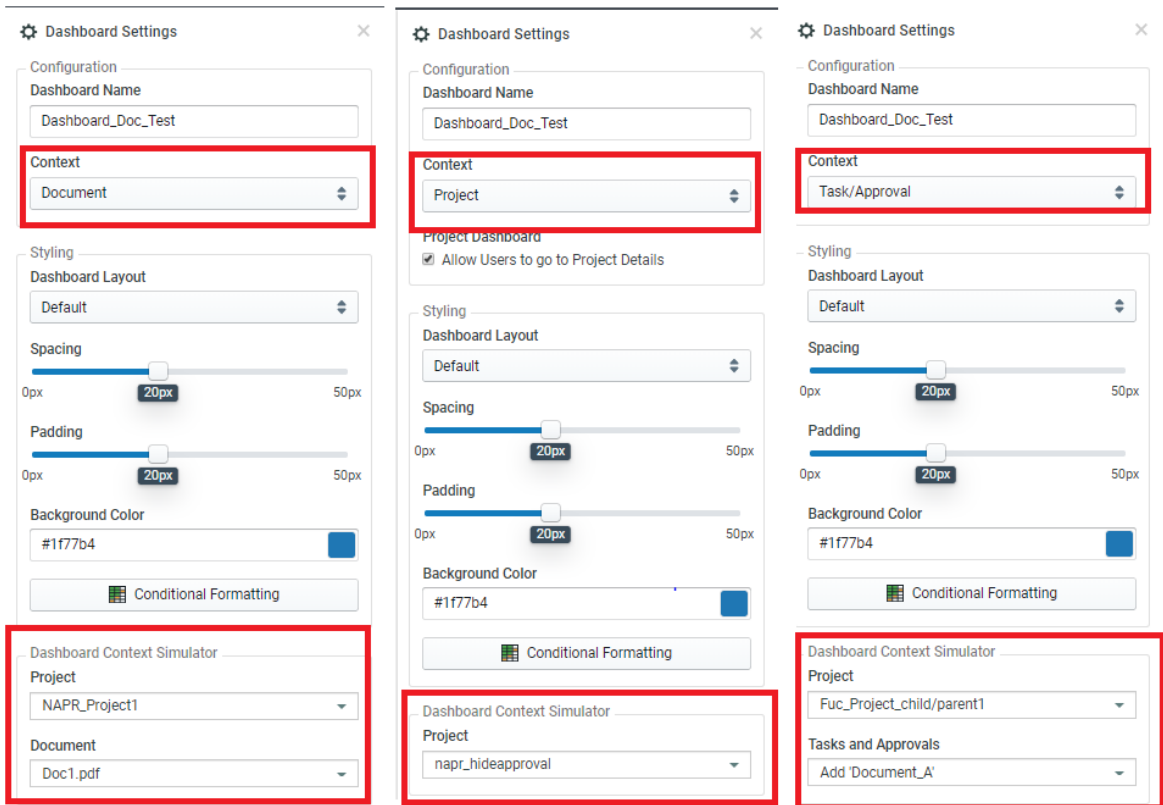


Duplicating also works on all the layout blocks. When layout blocks are duplicated, all the blocks in that particular layout block are duplicated. This allows for fast layout creation in the dashboard.

- **Add Block:** The **Add Block** button allows you to add blocks directly to blocks that accept children (e.g. Column Layout, List Layout, Collapsible Section,...). When clicking "Add Block..." a Gallery popup is displayed from which you can select a block, which is then added as a child.

## Dashboard Context Simulator

You can view the Dashboard for a selected Project, Document or Task with this option.



In the **Dashboard Context Simulator** option when

- Project is selected, drop-down lists all the projects from which you can select the project.
- Document is selected, drop down list all the projects in the system from which you can select the document.
- Task is selected, drop down list all the projects in the system from which you can select the task.

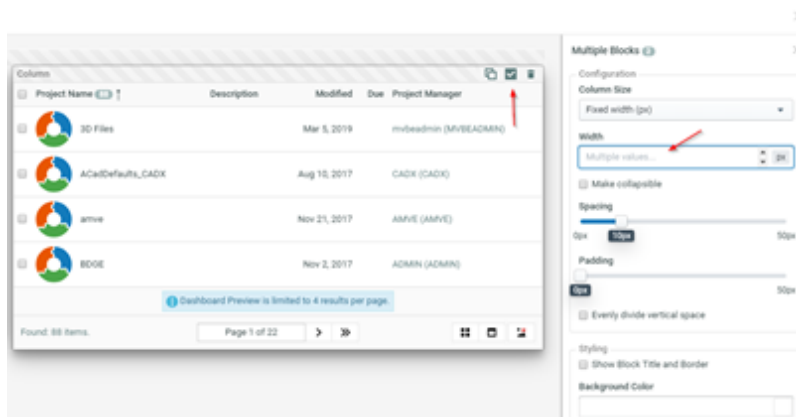


**Note:** This option is not visible when the dashboard is created for unspecified context.

### Bulk configuration of blocks

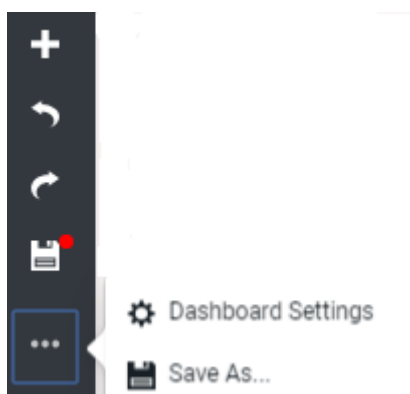
You can select multiple blocks and apply changes to them at once using this option. Select the blocks by clicking on the selection icon in the block and perform **Styling** and **Configuration** actions once. Options that can be configured may vary depending on the blocks chosen.






### Gallery Panel Actions

You can add gallery blocks into the dashboard by clicking on the +. You also have Undo and Redo action in the panel along with save. You can select the ellipsis to view the **Dashboard Settings** or make a copy of this dashboard using **Save As** option.



You can view any dashboard when it is built using the preview  icon in the bottom left corner. In preview mode, click the gear icon to return to the dashboard builder. When the dashboard is in configuration mode, you can pin or unpin the gallery. When the gallery is in pinned, the gallery closes while dragging a block and opens up again once the block is dropped onto the dashboard.

### Configure restriction of attribute values and reference properties to the value of another attribute

In dashboard forms it is possible to limit the allowed values of an attribute/specification or reference property to the value of another attribute in the same context.

The target attribute (which has limited allowed values) should be of the type text; the source attribute (which is providing which values should be available) should be a multi-value attribute.

The target and source attribute should be defined in the same attribute category in the same project/document or task context.

When restricting the value of a reference properties, it is possible to use the value of an attribute that is part of the parent context (project/document/task that is having the document reference on which the reference property is defined).

The configuration of restrict values to another attribute is done in the Attribute Category (common/wc/concept/co\_wc\_RestrictAttrVal2PrevSelectedVal).

When "Automatically update values when restricting Attribute is changed in Dashboards" is enabled, dashboard forms will automatically update values when changes are made to the source attribute: when there is a single option possible, the value will be selected, when selected values are no longer valid, they are removed.


When a reference property needs to be restricted to an attribute in the parent context, this can be configured in the "configure columns" popup for the document reference in the Dashboard.

## Dashboards Shortcuts

### Dashboard Editor Keyboard Shortcuts

- Ctrl + s: Save the dashboard
- Ctrl + z: Undo
- Ctrl + y: Redo
- Ctrl + click: Multi select blocks
- Shift + click: Multi select blocks
- Delete/backspace: Remove all selected blocks
- Ctrl + g: Open the gallery. You can now directly start searching for blocks, press tab to select a block in the gallery, and press enter to add the block to the top of the dashboard.
- Ctrl + e: Toggle between edit mode and preview mode
- Esc: Close the gallery

## Dashboard Gallery

The Dashboard Gallery consists of all the blocks that can be added to create a dashboard. It is located on the left side of the Dashboard configuration page. You can open the gallery by hovering over the .

The blocks that show up in the gallery depends on the the context of the dashboard that is being created.

### General

The General section contains the blocks which are available irrespective of the Dashboard context.

- **Counter:** You can specify a **Saved Search** and the amount of search results is shown in the Counter.
- **Dashboard:** To reuse a configuration in different dashboards in the current dashboard.



**Note:** Use this option sparingly, as this might slow the speed at which the dashboard is rendered.

- **Discussions:** To view the current discussions you are part of. You may choose to display Project or Task or Document discussions or all the discussions.
- **Image Spinner:** Read more about this block [Image Spinner](#) on page 265
- **My ToDo Feed:** To show your Tasks and Approvals in a custom way based on the dashboard context. For example, you can create a dashboard for Task and Approvals for Todo items or in a Project dashboard to show pending tasks. Read More here.
- **My ToDo List:** Displays a merged overview of all Task and Approvals for the current User.

This block has the following configurable parameters which are all enabled by default:

- **Show Tasks:** Displays all the pending tasks.
- **Show Approvals:** Displays all the pending approvals.
- **Categorize by Time:** You can specify if the block should have categories by time or no categories.
- **Maximum Height:** Specify in Pixels or in percentage and by default has no value.
- **Rich Text Block:** You can add a block of text and also display the translations of the text in the languages of your choice.
- **Viewer :** You can add this block to view the viewable files in the Dashboard itself. Read [more](#) .
- **Saved Search:** To show a Saved Search where the context of the Dashboard is used to resolve the smartnames of the Saved Search.
- **Selection Details:** To show a Dashboard for each selected item in the Search Results
- **Text Content:** This block shows a Text or Table (wcc or wtc) document from the Packaging Content Module in a Document Dashboard. You can both view and edit the Text and Table Content in the Text Content Block.



**Note:**

- User can edit a text statement in Text Content Dashboard block and save the changes using the Dashboard.
- **Save** button and version of text statements in dashboard also gets updated pointing to the latest version.



**Note:** In Dashboard, languages are displayed based on the **Task, Document, Project** contexts and the priority is **Task/ Document/ Project**. In Dashboard view of TextContent Block, the list of languages which are not part of the **context** are removed.

- **Save Changes As Part of Dashboard Save**

An admin user can made changes in PCM Text content blocks and save it using dashboard **Save** button.



**Note:**

- Dashboard must be configured as **Edit form**
- Dashboard save is applicable for both text content and table content documents.
- If a form is cancelled, the text content block will not be automatically reset. To do this, the user must reload the page.

Perform the following task to save changes as part of Dashboard save:

1. On Project view page, click **Attribute**.
2. Click **Link**, and then select the document from the list ,you wish to view on the Dashboard.
3. Click **Save**.

Project: BHSR\_TextContentBlock\_SaveAction\_Project-0212

- ↑ Upload
- 📁 Upload Multiple Documents
- ✉ Mail link to
- More... ▾



Manager: ProjectManager, Sah (SAH)  
 Customer:  
 Due On:  
 Modified: Mar 6, 2023  
 Description:

Documents 22 Bill Of Materials 0 Tasks 1 Discussions 0 Characteristi

Attributes in Category TL\_WCR-18243\_AttCat

### Languages

Master Language	English - United States English - International
Translation Language(s)	Dutch - Belgium French - France

### Attributes

Text Statements

+ Add Statements
+ Link

+	-		Thumbnail Name
⋮		?	Please Select...
+	⋮	NUTRITION FACTS	<span style="background-color: #ffc107; padding: 2px 5px; font-weight: bold;">Nutrition facts</span> WCR-17335_TableContent.wtc
+	⋮	NUTRITION FACTS	<span style="background-color: #ffc107; padding: 2px 5px; font-weight: bold;">Nutrition facts</span> WCR-17335_TableContent.wtc

4. Switch to Dashboard page, expand the document you want to modify, make required changes and then click **Save**.
5. Refresh the page to see changes on the Dashboard.

- **Button:** Add Button block when you want to link a button in the dashboard to an action. You can read about the Button block [here](#).
- **Content Sheet:** Enables you to easily compare the contents of an artwork with content sheet or two versions of the Artwork. Read detailed information about Content Sheet [here](#)

## Layout

You can use combinations of list, left side panel, column layouts and collapsible section to present your blocks in the dashboard. Drag and drop the **Layout blocks** into your canvas to create a interactive dashboards. To Configure your layout blocks available in dashboards:

- Select **List Layout** for a vertical list of blocks and **Column Layout** for a horizontal arrangement. Spacing between these blocks can be specified and Padding can be specified for each direction independently.
- Select **Left Side Panel Layout** to present info in a left side **Column Layout** with an embedded List layout. This pre-defined layout can be modified to suit your needs.
- Select **Collapsible Section** to present info which can also be hidden and expand one or more blocks based on the requirements.
- Select **Column Layout** to display blocks in configurable columns. When the user adds a Column Layout to the dashboard, the layout is preconfigured with 2 columns and padding can be specified for each direction independently.
- Select **Menu Layout** to show your Dashboard content by linking to other dashboards or to other blocks. Detailed information of Menu layout can be read [here](#) and you can read about how to use a Menu layout to create a project [here](#).
- Select **Grid Layout** for easily configuring your Dashboard in a grid. Detailed information of Grid layout can be read [here](#).
- Select **Dropdown** to show blocks in a dropdown menu which opens on hover or click. Detailed information of the Dropdown block can be read [here](#).

## Context based blocks

Dashboard can be created for different contexts like Project, Document or Task and Approvals. There is also an option to create Dashboards with no specified content called Unspecified. The blocks available in the gallery show information based on the context selected for the dashboard. All the fields which can be searched in a Project/Document/Task/Approval Search are available as separate blocks. It is possible to configure conditional formatting and to customize a link for these blocks which behave the same as in Search. Some of the blocks available are

- **Thumbnail block**: shows the thumbnail of the Project or Document
- **Project Attributes, Document attributes, Task specifications**: these blocks show a view of the attribute category of the Project, Document or Task in read-only or edit mode.
- **Approval Setup** : shows the approval setup of a Document. This block is only available in a document context.

## Action Buttons

**Project Actions**: available in Project Context. Here you can add a **run script** action that can run a script when the user clicks the action.

**Document Actions**:this block is available in **Document** and **Task/Approval** context.

Use this block to show **Document Actions** which are configured in the menu builder or in the block itself. All actions which are available on Document Search Results are available in this block.

You can also add a **run script** action to trigger a script that uses the Dashboard Forms Scripting API.

**Task Actions**: The block is available in Task/Approval context. You have two options namely:

- **Execute Task**:opens the Task Execution Page
- **Go to Project**: opens the Project
- **Run Script**:trigger a Dashboard Forms Script

**Approval Buttons:** This block is available only for Document and Task and Approval dashboards. You can configure approve, reject and comment buttons.

**Viewer Block**

The Viewer block is available for **Document** and **Task and Approval** Dashboards.

You can configure the Viewer block with the following parameters:

- **Height:** Specify the height of the widget in px (pixel) or in % (percentage).
- **Make Collapsible:** Enable this to allow the block to be collapsible.

The viewer block shows basic text selection when the block is used in a search or in combination with a saved search block.

For Graphic files a limited number of tools are available in the viewer:

- Zoom to fit
- Rotate View and
- Current page number/ total number of pages

For documents with multiple pages, the block shows the current page and the total number of pages.

You can navigate to the previous or next page with the back and forward buttons, when the text search matches are on multiple pages.

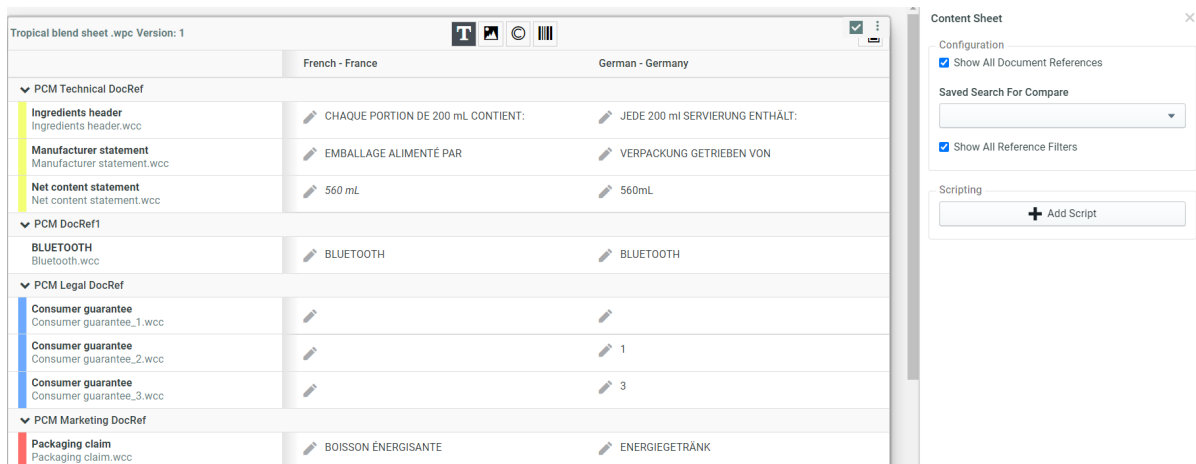
**Content Sheet Block**

The Content sheet block in Dashboard allows you to easily view and compare content sheets.

Content Sheets are typically created as a collection of all the elements required within the artwork as document references. You can read more about Product Content sheet [here](#).

A Content Sheet block shows the selected document references in a predefined layout.

Content sheet block can be configured to show the referenced contents of a component or an artwork document. The contents are shown in multiple tabs namely, Text, Table, Images, Symbol and Barcode with default tab as Text content. In the Text Content tab, Master and Translation texts are shown along with the Reference scope.



	French - France	German - Germany
<b>PCM Technical DocRef</b>		
<b>Ingredients header</b> Ingredients header.wcc	✎ CHAQUE PORTION DE 200 mL CONTIENT:	✎ JEDE 200 ml SERVIERUNG ENTHÄLT:
<b>Manufacturer statement</b> Manufacturer statement.wcc	✎ EMBALLAGE ALIMENTÉ PAR	✎ VERPACKUNG GETRIEBEN VON
<b>Net content statement</b> Net content statement.wcc	✎ 560 mL	✎ 560mL
<b>PCM DocRef1</b>		
<b>BLUETOOTH</b> Bluetooth.wcc	✎ BLUETOOTH	✎ BLUETOOTH
<b>PCM Legal DocRef</b>		
<b>Consumer guarantee</b> Consumer guarantee_1.wcc	✎	✎
<b>Consumer guarantee</b> Consumer guarantee_2.wcc	✎	✎ 1
<b>Consumer guarantee</b> Consumer guarantee_3.wcc	✎	✎ 3
<b>PCM Marketing DocRef</b>		
<b>Packaging claim</b> Packaging claim.wcc	✎ BOISSON ÉNERGISANTE	✎ ENERGIEGETRÄNK

**Content Sheet** ✕

Configuration

Show All Document References

Saved Search For Compare

Show All Reference Filters

Scripting

+ Add Script

**Configuration of the Block**

- Show All Document References
- Show All Reference Filters
- Saved Search for Compare

**Show only contextual languages**

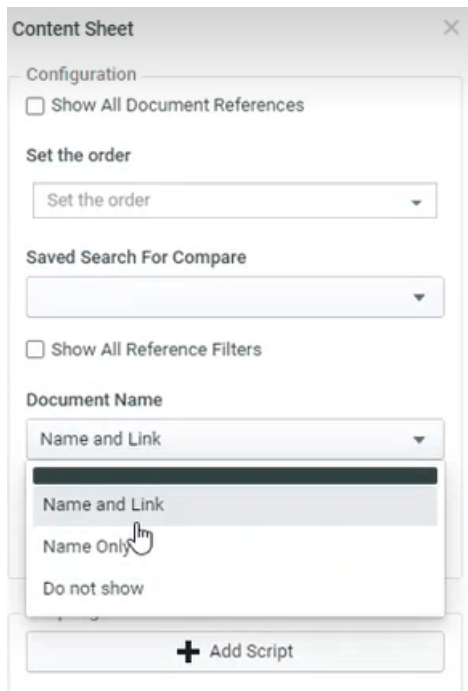
In dashboard, when a content sheet block is added with context, the content sheet will show the contextual languages. If there is no context, it will show content sheet languages. The languages are displayed based on the priority (Task/Document/Project).

**Enabling and disabling the document name and link in the Content Sheet Block**

Users can enable or disable the document name and link in the content sheet block by selecting from the **Document Name** drop-down list.

**Document Name** drop-down contains three options, such as:

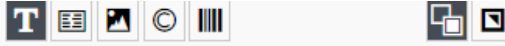
- Selecting **Name and Link** enables document links and shows the name.
- Selecting **Name Only** disables document links and shows only the names.
- Selecting **Do not show** disables document links, names and only shows element type.



**Comparison of Different elements**

You can compare any of the two different

- content sheets or
- versions of the same artworks or
- artworks which has the same attributes

Get Set.ai Version: 1 / Tropical blend sheet .wpc Version: 1 

	Delta	Position	Variant	Pack Type	English - United States
▼ PCM Technical DocRef					
<b>Manufacturer statement</b> <sup>1</sup> Manufacturer statement.wcc	CHANGED	Top Back	Tropical Blend Coconut & Berry	Corrugated Box Carton	PACKAGING POWERED BY
<b>Ingredients header</b> <sup>1</sup> Ingredients header.wcc	CHANGED	Front Back Top	Tropical Blend Coconut & Berry	Carton Corrugated Box	EACH 200 mL SERVING CONTAINS:
<b>Net content statement</b> <sup>1</sup> Net content statement.wcc	CHANGED	Top Front	Coconut & Berry Tropical Blend Apple & Lime	Carton Corrugated Box	560 mL
▼ PCM Legal DocRef					
<b>Consumer guarantee</b> <sup>1</sup> Consumer guarantee_1.wcc	CHANGED	Back	Tropical Blend Coconut & Berry	Carton Corrugated Box	2
<b>Consumer guarantee</b> <sup>2</sup> Consumer guarantee_2.wcc	CHANGED	Back	Tropical Blend Coconut & Berry	Carton Corrugated Box	1

When you choose to compare a document with another document, the **Delta** column shows the status whether the contents have **Changed** or **Removed** or **Added**.

The differences are shown specifically in each of the content for changes as follows

- **Text:** Color coded highlights on the exact location of the change on the text content itself for each of the language present.
- **Table:** Status to indicate a table has changed or not.
- **Images:** Change of values to the EXTERNAL\_IMAGE\_PATH are shown.
- **Symbols:** Change of values to the SYMBOL\_NAME are shown.
- **Barcode:** Change of values to the BARCODE\_BASECODE and BARCODE\_COMPOSITE\_COMPONENT are shown.



**Note:** EXTERNAL\_IMAGE\_PATH, SYMBOL\_NAME, BARCODE\_BASECODE and BARCODE\_COMPOSITE\_COMPONENT are all hard coded attributes.

Apart from the changed and unchanged statuses, the content **Removed** from the Source document and content **Added** to the source document are shown specifically in the each of the tabs.

### Sticky Section

A Sticky Section is a block that can stick to the top or the bottom of the page scrolling. A sticky section block behaves in a similar way as a List Layout, with the benefit that you can configure it to stick to the top or bottom of the page. If no position is set, the block behaves as a regular list layout. Define an offset in pixels to determine how far from the top or bottom the section should stick.



**Note:** Sticky sections don't consider other sticky sections. They might overlap if not configured correctly.

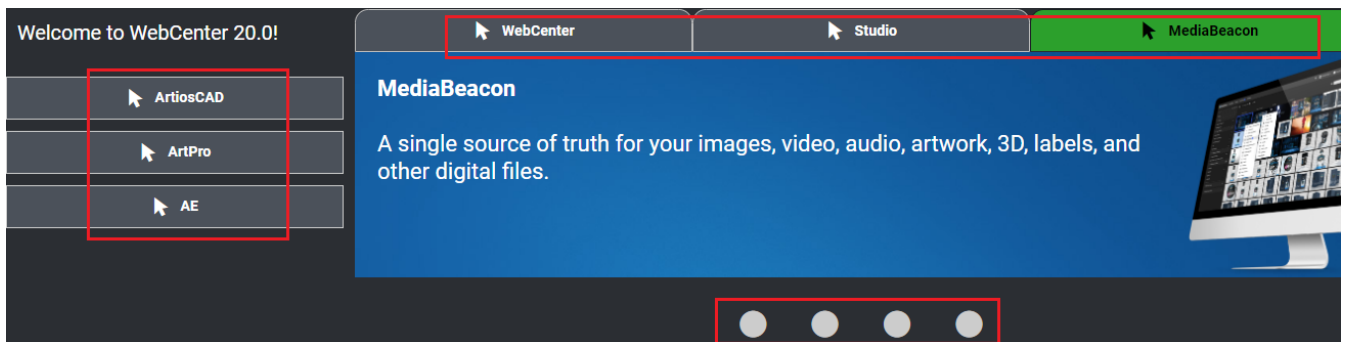




**Note:** When a sticky menu is configured in WebCenter, the sticky section will take this into account and will not overlap when configured to stick to the top.

### Menu Layout

A Menu layout allows you to create more interactive dashboards which are visually more appealing. The user interface can be designed to alternate between views within the same context, in the same dashboard. A Collapsible Menu Layout allows you to create a sidebar with buttons and/or dropdown buttons that stay visible when the sidebar is collapsed.



Tabs can be added either to top or left or in the bottom. Above screen shots example shows tabs added with all the three options.

### Configuration of Menu Layout

The Menu Layout blocks configuration consists of buttons and a content block which are linked to each other and it can be used to control the content of a block with buttons. The buttons are automatically linked to the content block when adding the Menu Layout to the Dashboard. You can create Projects within Menu layout. Read more about it [here](#).



**Note:** When there are multiple Menu layouts added within the same Dashboard, change the name of the content blocks so that it is easier to recognize them in the configuration panel.

### Grid Layout

The Grid Layout block is available in the Dashboard Builder of a **My Work**, **Search** or **Global** Dashboard and allows you to easily position blocks in a grid.

### Configuration of the Grid Layout Block

This block is a layout block that can be used to display other blocks in a configurable grid. The block has some typical grid layout parameters:

- **Rows:** lists the rows in the grid (labeled with numbers). For each row the height can be configured.
- **Columns:** lists the columns in the grid (labeled with letters). For each column the width can be configured.
- **Row/Column Gap:** to control the spacing between the rows and columns.
- **Padding:** to change the padding around the grid. Padding can be specified for each direction independently.
- **Minimum Height:** to set the minimum height
- **Fill Container:** to allow the grid layout to fill the container

### Configurable Rows and Columns

The dimensions of the individual rows and columns can be configured separately. For maximum flexibility you can use a combination of different units to determine the behaviour:

- **px**: to set a fixed width/height.
- **%**: to set a variable width/height as a percentage of the total grid layout size.
- **fr**: to configure the width/height as a fraction of the layout. The fraction unit represents a fraction of the available space in the grid container. All columns/rows using fractional units will have synchronized width/height.
- **Auto**: to have the width/height determined automatically based on the content of the grid cell.

### Grid Cells

When adding content to the Grid Layout, Grid Cells are created. Grid Cells behave like List Layouts with all options like **Background Color**, **Border**, **Border Color**, **Spacing** and **Padding** (slider bar) available.

The **Size** of a Grid Cell can be adjusted by:

- selecting the Grid Cell and dragging one of its corners in the direction in which you want to increase or diminish the cell's dimensions.
- setting the Size in the Grid Cell's configuration panel. The cell will span over the indicated number of rows and/or columns. Note that it is possible to cover other cells in the process.

### Styling options available for Grid Layout block

For this block there is only one styling option: **Background Color**.

### Button Block

Button block is available In the Dashboard Builder of a **My Work**, **Search** or **Global** Dashboard and shows a button with a text and/or an icon.

### Configuration of Button Block

This block is versatile and can be configured for various uses with the following parameters:

- **Labels** and **Icons** which are customizable.
- **Link to**: Specify where the button has to be linked to. Depending on the option linked, further configuration options are shown. Buttons blocks can be linked to
  - **Dashboard** : Choose from the existing Dashboards available in the drop down or create a new dashboard. You have the option to show the configured Dashboard in the **Current window** or **New Browser Tab** or **Pop up** or in **Menu Layout**.
  - **Saved Search**: Choose from the existing Global Saved searches available in the drop down and you can further specify to open either in the same Window or in a New Browser tab.
  - **Create Project** : Choose either a Project or Template available in the drop down, based on which a new Project is created. See how to create a project in Dashboard using [Create Project](#) option.
  - **Download Document**: You can create a link to a document, that can be downloaded from a specific Project.
  - **URL** where you can specify an URL to be opened either in the **Current Window** or a **New browser tab**.

### Styling options available for Button block

This block can be customized with various styling options available like **Background Color**, **Use Contrast color for text** or **Custom Text Colors** based on your preference.

Button blocks can be rendered either as **Text** or **Icon** or **Icon and Text** . Along with this you can also choose the **Alignment Border**, **Border Color**, **Size** and **Padding** (slider bar) for the Button block.

The block itself can be made to render in various sizing options like small, medium, large or extra large based on your requirements.

Button block can be used in multitude of ways and one them is detailed here.

### Dropdown Block

The Dropdown block is available in the Dashboard Builder of a **My Work**, **Search** or **Global** Dashboard and shows a button with a text and/or an icon.

#### Configuration of the Dropdown Block

This block is versatile and can be configured for various uses with the following parameters:

- **Labels** and **Icons** which are customizable.
- **Open on Hover** or **Expand Inline** to specify the behavior of the dropdown.
- **Direction** to determine the direction in which the menu is opened. This option is not available when **Expand Inline** is selected.

#### Styling options available for Dropdown block

This block can be customized with various styling options available like **Background Color**, **Use Contrast color for text** or **Hover color** based on your preference.

Dropdown blocks can be rendered either as **Text** or **Icon** or **Icon and Text** . Along with this you can also choose the **Alignment Border**, **Border Color**, **List Background Color**, **Size** and **Padding** (slider bar).

The block itself can be made to render in various sizing options like small, medium, large or extra large based on your requirements.

A Dropdown block can be nested in another Dropdown block.

### How to Configure My ToDo feed

My ToDo feed has the following configurable parameters:

- **Show Tasks/Approvals**: These two parameters define the items that are visible in the list.
- **Task Dashboard/Document Dashboard**: The configured dashboards are used to show the entries of the todo list. It is possible to select a different dashboard for tasks than for documents.



**Note:** Use context specific information blocks to view your tasks and approvals along with Action buttons to perform actions your Todo items.

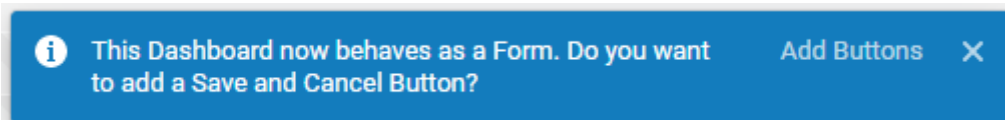
- **Padding**: Spacing between the cards and the border/frame of the block can be set and adjusted
- **Spacing**: spacing between two cards can be set and adjusted. When you view this block in the dashboard, you can perform the following actions
  - **Refresh**: To update the information.
  - **Filter**: To filter the items that are visible in the Block.

The Tasks and Documents that are shown in the My Todo Feed are the same as in the **My Todo** List block.

### Project Creation from a Dashboard

Dashboards are more interactive in order to edit the data which can then be saved or have forms where input can be added. Project creation has been incorporated to enable easier collection of information with specific action driven pages in Dashboards.

Admin users can set the Dashboard function to **Creation Form** in the Project context. Then an option is available to add a **Save** and **Cancel** button.

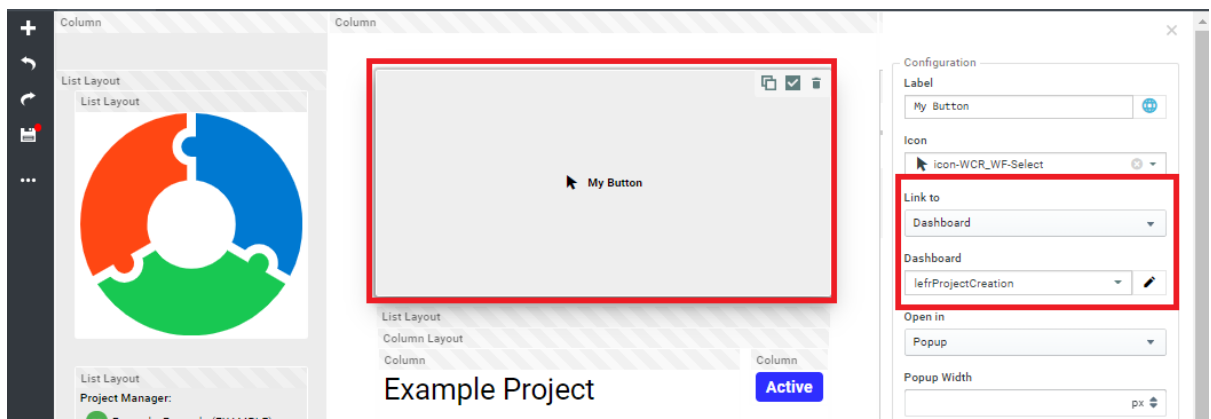


You can create customized Projects from an existing Project or a Template which are available in the dropdown. When no Project or Template is selected, a blank project is created.

**Save** and **Cancel** buttons can be formatted with various configuration parameters available for the blocks.

### Creating a Project using a Button Block

You can configure a *Button block* so that clicking the button opens a Dashboard. The Dashboard can be further configured to open a project creation form as shown in the image below.



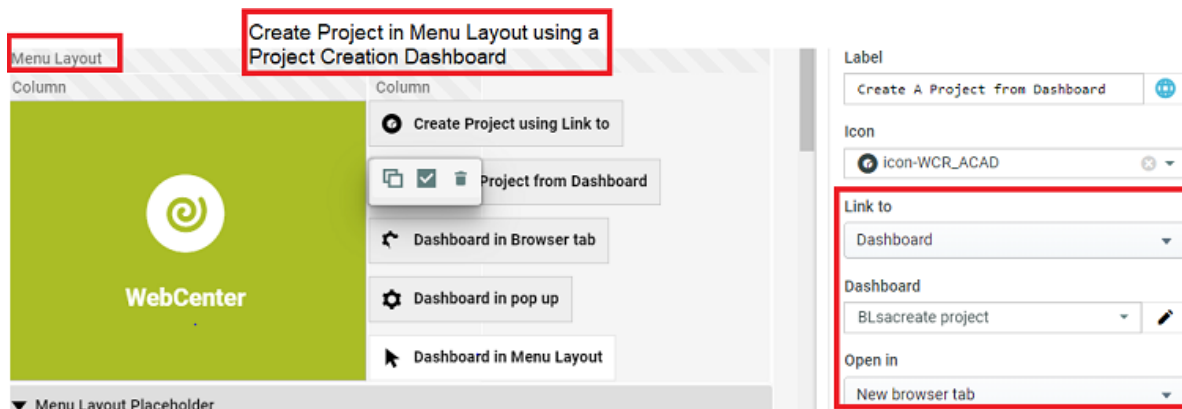
To use the Button with a Project Creation dashboard, follow the steps below.

1. Create a Dashboard with Project as **Context**.
2. Set the Dashboard Function to **Creation Form**.
3. Choose the **Project or Template** that you wish to create the Project from.
4. You can optionally choose to navigate to the new Project when it is created or open in the same browser window.
5. Choose your **Styling, Padding, Background color** options for the **Creation form**.
6. You can add the *Document Sources* from which documents can be added to the project created.
7. Now create another Dashboard with any context that you need and add a Button Block. In the configuration of the block, link it to the dashboard created earlier.
8. Save the Dashboard.

### Creating a Project using a Menu Layout

Similarly in the *Menu Layout*, you can create a Dashboard as stated above. Select the Button block in the Menu Layout (with Bottom or Top or Left option).

Below screenshot shows project created from Dashboard.



### Configuring a list of Documents as Tables

#### Configure a list of Documents as a Table

Dashboards can be configured and customized to show the list of Documents in different Table layouts like List or Grid layouts. This functionality works only with **Document Reference Attributes** in Project or Document contexts and with **Documents** and **Document Reference Specifications** in Tasks and Approvals Context in Dashboards.

An Administrator user can configure a list of documents for any of the Project or Document or Task information fields in dashboards as a table.

A **Display Style** option allows you to configure the list for the Information field as either a

- **Simple Text:** Shows only the name for the list of documents
- **List Layout:** Shows as table with the information shown in columns
- **List Layout, with no headers:** Shows as table with no headers
- **Grid Layout, Thumbnail on Top:** Shows list as blocks with thumbnails at the top
- **Grid Layout, Thumbnail Left:** Shows list as blocks with thumbnails to the left
- **Card Layout:** Shows the list as cards
- **Dashboard:** Shows each document in the list as the selected dashboard

When any option other than **Simple Text** or **Dashboard** layout is set as Display Style, the following options are available:

- **Configure Columns** allows you to configure the information in columns. Read in detail [here](#).
- **Conditional Formatting** allows you to set conditions based styles for display of the information.
- **Configure Sources** allows you to configure Drop zones and Buttons for adding documents. Read in detail [here](#).
- **More Options** opens a popup where you can choose the layout options (similar to [Search Results Layout Options](#)).

When **Dashboard** layout is selected and the Document dashboard is set to **Edit Form**, these Document dashboards become part of the form of the parent dashboard. This means that by saving the form of

the parent, which can be a Project, Document or Task dashboard, the changes on the documents will also be validated (scripts will be executed) and the values will be saved.



**Note:** This layout allows you to create deeply nested dashboards, which may involve a performance risk. For layouts with deeply nested dashboards, saving the form will make WebCenter check all the documents. Making sure that all required information is filled out and all validation scripts are passing might take a while.

### View and Edit Lists in Dashboard

Dashboards are enabled to show preconfigured lists ( like in Attribute Category page) and it can also be made editable. This allows using the Dashboard as an input page with restricted values and also to save the values from the dashboard.

Admin users can set this up in Dashboards with attributes that has list configured in Project or Document or Task Dashboards where each of the attributes can be linked to a single list or column combination.

To set up a list in Dashboard, follow all steps as provided [here](#) and add it to the configured [attribute category](#) for the Project or Document or the Task that you wish to add the Dashboard.


Functionalities like distinct values, filtering of linked attributes, anomaly handling, and task specifications are available in Dashboards as well.

Options available in the **Configure List** window like

- Allow other values
- Autoselect Matching Values when other values are filled out outside of Attributes page (e.g. Workflow)

are also applied in Dashboards.

Project Dashboards setup with attributes that has lists configured, can be used as a landing page to choose values from the dropdown in Projects, where the attribute category contains the same attributes.

Document Name	Description	Project Name	City	Country	Market	Restricted Set	Value taken from Restricted Set
 logo.jpg		TL_WCR-17645 Cascading Dropdown Template003BLSA	Melbourne	Australia	APAC	option 1	

Similarly with Tasks and Document Dashboards, the same attributes have to be present in the **Attribute Category** of the Project, where the Task is executed or the Document that is present.

### Document Sources for Dashboards

You can create specified areas in Dashboard that can be configured to drop the documents, like for example for Project Creation. You can configure document sources for the field when the layout option chosen is not **Simple Text**. You can either have a Drop Zone or a Button configured as a document source. You can select one of the type of Document Source in the dropdown and add or delete the document source.

You can configure the document sources in the Dashboard with the **Configure Actions & Sources** option.

Live preview of the configuration of the **Configure Sources** are reflected at the top of the window in the preview area.

### Buttons

Buttons can be configured with one of the following ways given below.

- **Browse:** Allows you to upload files from your system and you can specify the file extensions, along with the Document Template and folder.
- **Saved Search:** Allows you to choose files from the Saved Search results where the name of the Saved Search is shown in the pop up. Operations like **Copy** or **Use by Reference** are possible on the document and you can specify the **Document Template** and **folder**. When the saved search with SmartNames are chosen, the SmartNames are resolved and rendered.

- **Asset Management Connection:** Allows you to select one of the configured asset management connection from the **Connection** drop down and update the connection details like the Folder, Popup Title, Button Label. Currently WebCenter and MediaBeacon connections are supported.



**Note:** This option is available with advanced connect license only.

- **Document Template:** Allows you to select from a document library when adding a document to the document reference.

If 'Run a standard' is enabled in the project, it will be run on save when selecting a cad file (ard file type), which has the necessary attributes in the attribute category of the document.

**Drop Zones**

Drop zones are designated locations in the Dashboard where you can add **Documents** to **Projects** or **Tasks** either from a Saved Search or by uploading the document. You can add a document from a **Saved Search** or upload the document. The documents from the saved search can be dragged and dropped into the **Drop zone** configured.

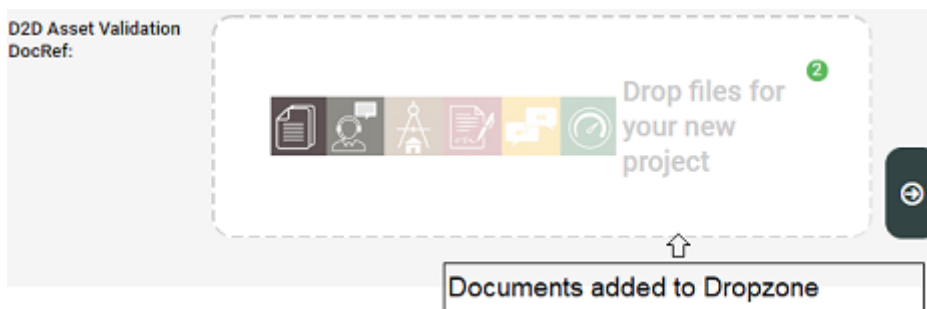


**Note:** Document Sources option where you can create a **Drop Zone** or a **Button** are only available when the Dashboard Function is set to **Edit Form** or **Creation Form**

Drop zones can be presented with multiple versatile styling options in the dashboard. Extensive Layout options, Spacing (Automatic/Compact/Wide), customizable label field, and the Icons can be configured.

Styling Options	
Layout	Buttons below Label
Spacing	Automatic
Label and Icon	Label and Icon
Label	Drop files for your new project
Icon	 2.jpg
Items shown as	Counter with Popup
Counter Color	#5cb85c

The added items can be shown as a table or the number of documents added can be shown in counter.





You can configure the Drop zone to add the document from either of the options below

- **Saved Search:** Documents from the saved search can be dragged and dropped into a drop zone configured to create a new project. The dropped documents are copied to the Document list. You can also specify the operations on the document namely whether it is copied or used by reference. Apart from this, you can also specify the document template and the folder.
- **Upload:** Add the document from the system. You can specify the following parameters for the uploaded documents namely allowed file extensions, Document Template or Folder.

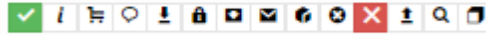
If multiple dropzone sources configured, then the dropzones are showed next to each other. For both types of sources, it is possible to configure a custom translatable label and the order of the buttons/ dropzones.

### Inline Document Actions

The inline actions that can be performed on the document sources can be configured in this tab for a document list block. Live preview is updated to reflect the changes done and most document actions are available.

















Configure Actions & Sources

Document Sources    Inline Actions/Sources



Buttons 

Hover Actions

-  Approve
  -  Approval Info
  -  Add to Cart
  -  Comment
  -  Download
  -  Lock
  -  Mail Download Link
  -  Mail link to
  -  Open in ArtiosCAD
  -  Remove
  -  Reject
  -  Upload New Version
  -  View and Annotate
  -  **View in 3D** 
- Add... 

Dropzones

-  Upload New Version
- Add... 

Configuration

View in 3D

Label

Icon/Label

Icon

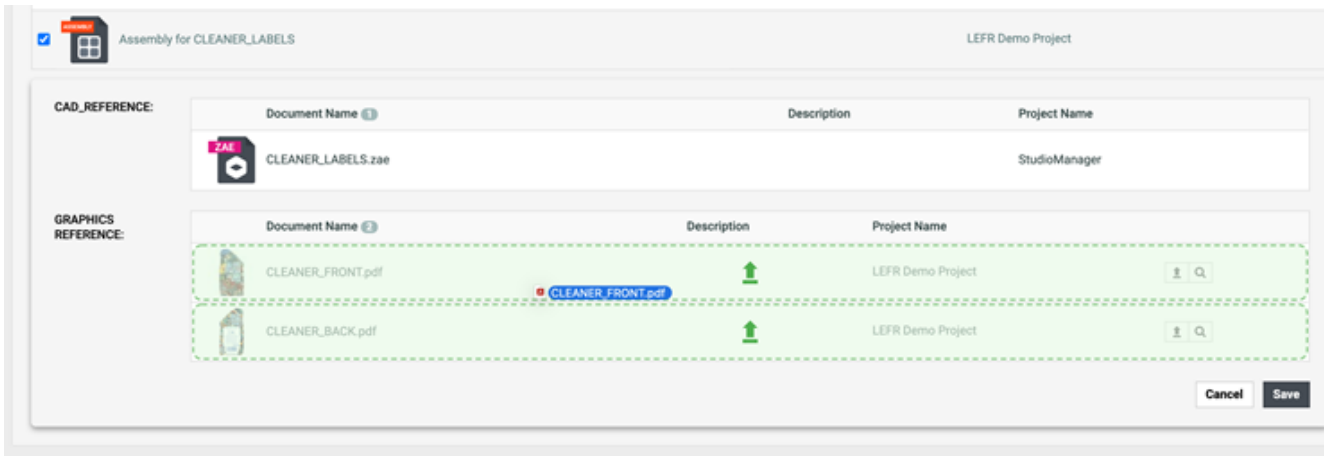
Color

Button Style

Each document action is shown in a row and can be set to either **Visible** or **Visible on hover**.

**Uploading a new version of the document**

You can upload new versions of the documents to the editable dashboard blocks with a configurable button, provided you have the **Update** permissions on the document.



You can configure the document sources of the attribute dashboard block, either by

- adding the upload new version button to the document row (hover action) or
- in the dropzone

Unsaved changes on the previous version are also applied on the new Document Version.



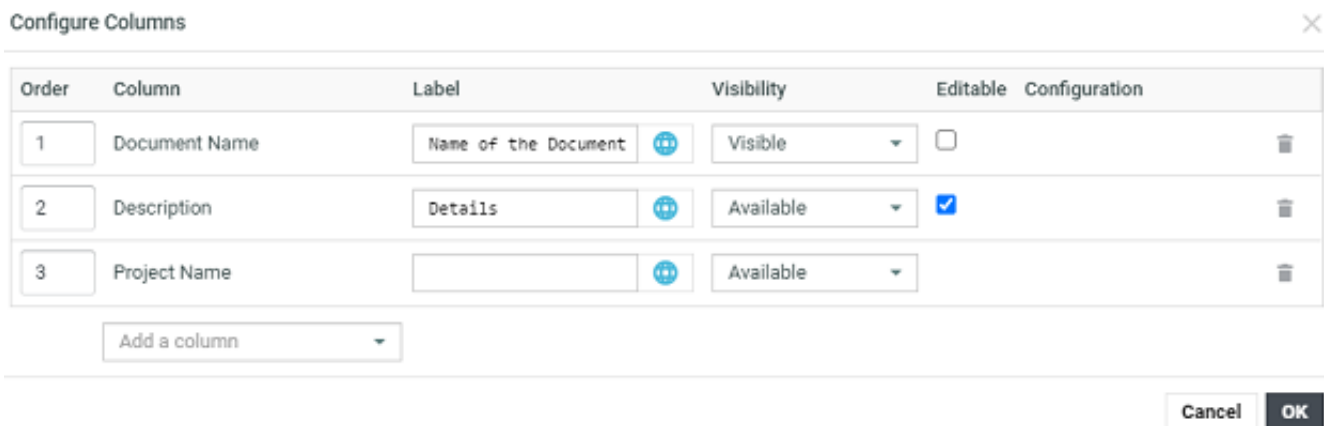
**Note:** Currently new version upload is not supported for page list documents and version comments is required for all uploaded documents.

**Remove**

You can configure a remove button for the documents added. This button removes the document from the document reference, but does not delete the document from the project. Similarly when the remove button is used when uploading the document, it allows to cancel the ongoing upload of the new version.

**Configure Columns**

You can configure the visible information of the table in the **Configure Columns** pop up window.



You can order the columns by entering the value in the Order field and enter customized column names in the Label field. You can also set visibility of the field as Available or Visible. Fields that are allowed to be edited, have the **Editable** check box next to it.

Configuration field shows if any additional configuration is present for the specific column. You can also add or delete a column.

## Text Content Master/Translation Columns

### Introduction

Packaging Content Management documents can be shown in multiple ways in Dashboards like the [Content Sheet Block](#) on page 152 or the [Dashboard Gallery](#) on page 148. However, a more simple and configurable way is just to show a list of such documents in a document reference or task documents block as a table.

When showing such a table with a list of documents, the columns that are shown can be customized (see [Configure Columns](#) on page 165) and as part of that, a few Packaging Content Management specific columns can be enabled.

### Master/Translation Text columns

Text Content documents have Master Text and Translation Text and these can be shown by enabling the columns with the same name. Each document can have different master and translation languages. In the table itself a specific set of languages will be shown. This set of languages cannot be configured when configuring the columns in the table itself, but instead the table will always use the language(s) selected in an attribute called MASTER\_TEXT\_LANGUAGE or TRANSLATION\_LANGUAGE outside the table. You will need to add this attribute somewhere above or next to the document reference or set the values automatically with workflow. For information on how to set up these language attributes, (see [Configure Master and Translation Language Lists and Attributes](#) on page 520)

The table shows the languages selected in the above mentioned attributes for the master and translation columns. First, it uses the attribute of the Project, Document or Task where the table is shown. When the value is empty and the table is shown in a Document dashboard it uses the attribute of the Project/Document/Task referencing the Document with the table (e.g. an artwork document that is referencing a contentsheet (component) document). When that value is also empty, it uses the value of the attribute of the Project of the Document referencing the Document with the table. When that value is also empty it uses the value of the Project of the Document/Task with the table.

This means that the dashboard with the document reference table can be reused on different places or it can be used in a drilldown dashboard or dashboard popup, the table will show the languages based on the context.

In columns that show a language, a bulk-add button is shown when the user has permission to add one of the languages in the column. Clicking the button will add a language to all documents in the column at once, eliminating the need to add each language manually. When no languages can be added due to permissions or the fact that the language is already added to all documents, the button will be hidden.

In translation columns, the autotranslate button is shown when the user has permissions to edit the text statements and a translation API key is set in the PCM configuration (Admin -> Configuration -> Structured Content Configuration). Clicking the button will translate all editable statements in the corresponding column with a translation from the first selected Master Text Column.

### Other available columns

Next to Master and Translation Text, some other Packaging Content Management information can be shown, like Element Type or Document Status.

### More Options

In the **More Options** configuration of e.g. Document Reference blocks, an Administrator can enable **Show Dashboard in Drilldown** and reordering of documents in the document reference.

#### Drilldown

If drilldown is enabled into a dashboard, the drilldown icon is shown in the document table. When the **drilldown** button is clicked, the configured document dashboard is rendered inside the table. The user can also click the drilldown button again to collapse the expanded dashboard. Multiple documents can be in expanded state at a time.

When drilldown into a dashboard is enabled, all visibility scripts, validation scripts and required fields configured in the drilldown dashboard are validated, even the collapsed ones. All the before validation are also run.



**Note:** This layout allows you to create deeply nested dashboards, which may involve a performance risk. When saving the form, WebCenter will check all the documents, making sure that all required information is filled out and all validation scripts are passing.

#### Reordering of document references

It is possible to reorder the documents in a document reference from a Dashboard Form.

Reordering is possible for document references displayed as a list layout in an edit form (project, document or task) and project creation forms. Enabling the reordering will show all the documents in a document reference at once, without paging, with a maximum of 400. Showing more than 400 documents would have too big of a performance impact.

How to enable ?

- Create a document/project/task edit form (or project creation form)
- Add a document reference
- Display as List Layout
- Open more options panel,enable "allow reordering of items" in the general section

## Configure a Content Sheet in Dashboards

### Introduction

Packaging Content Management documents can be shown in multiple ways in Dashboards, e.g. through a [Content Sheet Block](#) or a [Text Content Block](#). However, a simpler and more configurable way is to show a list of documents in a document reference or task documents block.

### Configuration

1. Add a Document Reference attribute to the dashboard.
2. Select **List layout** as Display Style.
3. Open the **Configure Columns** popup.
4. Search for **Text Content Master Text** and **Text Content Translation Text**.
5. Add them both as columns.
6. Make both columns editable to allow the user to edit the statements.



**Note:** Inline editing is not enabled for these columns so make sure your dashboard is set to either **Edit Form** or **Creation Form**.

### Master/Translation Text columns

Text Content documents have Master Text and Translation Text which can both be shown by enabling the columns with the same name. Each document can have different master and translation languages. In the table itself a specific set of languages will be shown. This set of languages cannot be configured when configuring the columns in the table itself, as the table will always use the language(s) selected in an attribute called MASTER\_TEXT\_LANGUAGE or TRANSLATION\_LANGUAGE. You will need to add this attribute somewhere above or next to the document reference or you can set the values automatically with workflow. For information on how to set up these language attributes, see [this page](#).

The table shows the languages selected in the MASTER\_TEXT\_LANGUAGE or TRANSLATION\_LANGUAGE attributes for the master and translation columns. By default, it first uses the attribute of the Project, Document or Task where the table is shown. When that attribute does not exist it uses the value of the Project of the Document/Task with the table. 'Exist' in this case means "is part of the attribute category's default view" of the Project, Document or Task.

However, when using Document Dashboards and adding a Master/Translation column to a document reference an option in the configuration of these columns can affect the behavior. If the option **Use the language attribute of the project/document/task referencing the content sheet** is not checked (default) then the behavior is as mentioned above. If the box is checked, then before checking the rules mentioned above, it will first use the attribute of the Project/Document/Task referencing the Document with the table, e.g. an artwork document that is referencing a content sheet (component) document. When that attribute does not exist in this context, it uses the value of the attribute of the Project of the Document referencing the Document with the table. When that also does not exist, it falls back on the default rules.

This means that the dashboard with the document reference table can be reused in different places or it can be used in a drilldown dashboard or dashboard popup. The table will then show the languages based on the context.

### Configuring features of PCM widgets

When configuring a Master Text or Translation text column in a dashboard document reference it is possible to control which features are enabled in the PCM widget. When you add a translation or master text column in a document reference, you can enable/disable features (show status, inheritance, comments and approval info) of the widget in the display options.

### Other available columns

Next to Master and Translation Text, other Packaging Content Management information can be shown, like Element Type or Document Status.



**Note:** When the auto-add option is enabled in the PCM deployment and configuration page, the auto-adding functionality will for now only be applied to newly created documents.

## 3.6. Project Management for Administrators

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Most Project Management tasks in WebCenter will be carried out by dedicated members with the Project Manager role.

However, Administrator users have some additional options: they can view and edit all **Projects**, create project and document **Templates**, and **Find Locked Documents** in the system, so they can reset them.

### 3.6.1. Projects

The **Project Management** page (**Admin > Project Management > Projects**) lets members of the Admins group manage all projects in WebCenter.

For more information about managing projects, see the WebCenter User Guide.

### 3.6.2. Project Templates

Members of the Admins group can create and configure project **Templates**. Those are pre-configured projects that Project Managers use to quickly and easily create new projects.

You can manage all project templates from WebCenter's **Templates Management** page (**Admin > Project Management > Templates**).

- Click **Create a new template** in the header to create a new project template.



**Note:** You can also save a project as a template.

- Click the name of an existing template to edit it.
- To delete a template, select it in the list and click **Delete** in the actions menu. Click **OK** to confirm the deletion.



**Note:**

If you try to delete a template with a custom document creation setting and if this template is being used by other projects / templates, you will get an error message.

Go to the relevant projects/templates configuration tab and select another template before trying to delete.

#### System History Logs

All Project/Template related events like

- **Project/Template created**
- **Project/Template deleted**
- **Project/Template imported**
- **Project/Template restored**

are recorded and stored in System History. Read this page on how to access the [records](#).

#### Create a Template from Scratch

1. Click **Admin > Project Management > Templates**, then **Create a new template**.
2. In the **Create a new template** page, select **Start from a Blank Template** and click **Continue**.
3. Enter the **Template Name** and optionally a **Description**.
4. To use a custom thumbnail, select **Specify New Thumbnail** and Browse for it.

To use the default thumbnail, leave that choice selected.

5. Click **Finish**.

Your template is created. You can now define **Attributes, Upload a document to the template, Add project members**.

### Create a Template from a Project Template

1. Click **Admin > Project Management > Templates**, then **Create a new template**.
2. In the **Create a new template** page, select **Use a Project Template** and click **Continue**.
3. Select the **Template** to use and click **Continue**.



**Tip:**

- Use the filter to only show certain templates. For Project Manager users and Project Creator users with limited visibility only the templates applicable are shown.
- Click a template to view its details in another window. Click **Close Window** to return to the **Create a new template** page when you are done looking at the template details.

4. Enter the **Template Name** and optionally a **Description**.
5. Choose the **Thumbnail** to use:
  - To use a new thumbnail, select **Specify New Thumbnail** and Browse for it.
  - To use the default thumbnail, leave that choice selected.
  - To keep the thumbnail of the project template you are using, select **Use Template Thumbnail**.
6. You can **Invite Members** and also create a new user to the project. To do this, Select **New Project Members** drop down and scroll down to **Create and Invite New User**.
7. Click **Finish**.

Your template is created. You can now define attributes, upload a document to the template, Add project members.



**Note:**

- The project template is created with the same folder structure, documents, characteristics, attributes, discussions, members, and security as in the original template.
- Any documents in the template are copied into the new template as new standalone documents, even if they were linked documents in the template.
- Any documents in the template are copied into the new template as new standalone documents, even if they were linked documents in the template.

### Save a Project as a Template

1. Create the project as desired, or open an existing project.
2. On the Project Details page, click **More actions** and **Save as Template**.
3. Enter the name of the template and a description in the appropriate fields.

To use a custom thumbnail, click **Specify New Thumbnail** and enter the complete path and filename in the associated field or **Browse** for it. To use the default thumbnail, leave that choice selected.

4. Click **Finish**.

The template is created.



### Configure Project Creation Terminology

It is possible to change the terminology used for project creation so that the Project Creation page talks about "Designs" instead of "Documents", or "Client" instead of "Customer", for example...

You can achieve this by customizing the terminology in the attribute category of the project or template used as a basis for project creation.

You need to:

1. Make an attribute category with [custom project creation terminology](#).



**Attention:** Your custom terms will not be automatically translated, and will show **as you enter them** for all languages in which you run WebCenter.

2. [Make a project template](#) (or a project that will be used to create other projects) using that attribute category.

Users creating projects from this project template will see your custom terminology on the Project Creation page.

### Configure Customized Document Rendering in projects

You can configure the **Upload Document** section, when a new project is created from an existing project or a project template. Ensure that the upload document is enabled in the **Project Source** or **Project Template**.

To customize the upload document section in the Project Creation form, navigate to **Projects > Configure > Document Rendering** in the Project Source or Project template.

You can read on how to customize at [Create an Advanced Table Rendering](#) on page 386.

## 3.6.3. Document Templates

As an Admin, you can create and configure **Document Templates**. These templates will serve as "dummy" documents (placeholders) that have a document type, file format, and attributes already specified. This information will be useful to real-life projects.

Those document templates will be used by Project Managers / other users to create **document placeholders** for future project documents.

For example:

1. You (the Admin) create a Document Library Project containing the document templates, and project templates referring to that document library (see [Create Document Templates](#) on page 172).
2. When creating a project from one of these project templates, the Project Manager will create placeholders from the document templates, to mark where the project deliverables should go.
3. When using the **Upload** function, a project member (with the **Add** right) can also create a placeholder from a document template, to indicate the characteristics (document type, file format, and attributes) of the final document to be uploaded.



**Note:** This is only possible through the normal WebCenter upload (see [Uploading a Document via Upload](#) on page 610 and [Copy / Create Multiple Documents](#) on page 613), not when uploading documents from other applications like Automation Engine and ArtiosCAD.

## Create Document Templates

1. Create a Project Template that will contain all your document templates (this will be your **Document Library**).

Having all the document templates in one location makes them easier to manage, and saves disk space.

2. If desired, create a folder to contain your document templates.



**Note:** If the project in which placeholders are created contains a folder with the same name, that folder will be used as default destination for the placeholders.

3. To create document templates:

- a) Upload a document of the right file format into the **Document Library**.

You can use any document type (enabled in the [Preferences](#)) except Page Lists.

- b) Define attributes for your document template: choose an Attribute category and fill in default attributes values.



**Note:** When users will create documents from this document template, they will inherit these attributes (and default values).

- c) Repeat for all document templates you want to create.



**Tip:**

- If you want a document template to always be used when creating placeholders of a certain file type, call it `Default.<extension>`, using the extension of that file type.

For example, call it `Default.pdf` so it is always used when users create `.pdf` placeholders (in projects using document templates from the **Document Library**).

- You can also create a generic document template called `Default` (without the extension), that will be used automatically for file types who don't have a `Default.<extension>` template associated.

For example if a user wants to create a `.png` placeholder but there is no `Default.png` document template in your Document Library, then the `Default` template will be used.

4. Create a Project Template for each kind of project that will be required by Project Managers.

5. In each of these Templates **configure** the **Document Library** as follows:

- a) In the **Project Details** page, **Configure** > **Document Templates**.

- b) Select **Project** or **Template** and select your document template library from the drop-down.

Documents 0 Tasks 1 Attributes Project Information Approval Members Security **Configure**

Workflow Connection **Document Templates** Project Creation Document Types Document Creation Project Statuses

Please select the Template or Project that will serve as a Document Library

Do not use a Document Library  
 Template  
 Project

When the Document library contains ARD files, how do you want to use these ARD files when creating a new Document?

Always run the ARD as a standard  
 Run the ARD as a standard when the IsStandard Attribute is set to 'yes'  
 Never run the ARD as a standard

**Save**

c) If your document library contains ARD files, and you want to use them to [run ArtiosCAD standards](#), select either:

- **Always run the ARD as a standard** if you want to be able to use any ARD document template in the document library to run a CAD standard,
- **Run the ARD as a standard when the IsStandard attribute is set to 1** if you only want to use some ARD document templates to run CAD standards.

These ARD document templates must have the **IsStandard** attribute assigned, with the default value set to 1.

Select **Never run the ARD as a standard** if you are not working with CAD standards.

d) Click **Save**.

Projects created from one of those project templates will keep the project template's link to the document library.

Project Members can then create placeholders from the document templates in the document library.



**Note:**

If you know that the Project Managers will always use the same set of placeholders in all their projects, you can also:

1. Create a document library Project Template.
2. Add Document Templates to the Project.
3. Go to **Project Details > Configure Document Templates** and select the same Project in the **Templates** list.
4. Project Managers can create projects directly from this Template to have the Document Templates as placeholders.

Note that this approach is less flexible!

### 3.6.4. Project Creation Settings

As an Admin user, you can configure the **Project Creation Settings** for a project or template. You can find these settings in the project or template's **Configure** section, under **Project Creation**. These settings define what is displayed on the **Project Creation Page** when you create a new project from this project or template.

First of all, you can choose whether you want to **Use Auto Naming** and define the naming scheme.

Furthermore, you can choose what features are displayed on the **Project Creation Page**. You can choose the following options:

- **Set Project Manager:** Show/hide the project manager selection on the project creation page. If you hide it, the project manager will be the same as used in the template or parent project. If you choose to show this section, it will default to the person creating the project.
- **Set Status:** Show/hide the project status selection on the project creation page. If you hide the project status, the new project will be created using the first available active project status.
- **Set Customer:** Show/hide the customer selection. You can make this a required field. Hide this field to use the customer set in the source project or template.
- **Set Description:** Show/hide the description field. You can make this as a required field.
- **Set Due Date:** Show/hide the due date selection. You can make this as a required field.
- **Upload Documents:** Show/hide the documents section. You can make this section required, so that the project creator has to add at least one document.



**Note:** You can configure the document upload section in the source project or the project template. Refer to [Configure Customized Document Rendering in projects](#)

- **Assign Roles:** Show/hide the role assignment section. You can decide for each role whether it is required to assign a group or user to it and/or whether you can assign multiple users or groups to this role.
- **Invite other members:** Show/hide the members section to enable/disable adding additional members to the project.



**Note:** When the Admin Users or the User creators assign Roles, deactivated users are shown in the drop down who can be activated and added to the project. User creators have access to only activate the users they created, whereas admin users can activate any deactivated users.

- **Set Attributes:** Show/hide the attributes section. You can show or hide the creation view of the project attributes of the source template or project.
- **Select Thumbnail:** Show/hide the project thumbnail section. If you hide this section, the thumbnail of the source project or template will be used.
- **Set Planning (Tasks):** Show/hide the task planning section. You can make these fields required.
- **Default Planning Method:** You can set the default planning method to **Forward** or **Backward**. Even if the Set Planning section is not displayed, the setting you choose here will be used for the new project.

### 3.6.5. Document Creation Settings

As an Admin user, you can configure the **Document Creation** settings for a project or template. You can find these settings in the project or template's **Configure** section, under the **Document Creation** tab.

When a project manager creates a project based on a template or an existing project, you can add **Documents** using the Default options or Custom options.

You can create a **custom** document creation set up in your template. In this setup, for each row in the configuration, a link is added to the specified section in the same order.

- **Default**

The default document creation options will be:

- **Browse**
- **Copy**
- **New** (when a template library is configured)



**Note:** **New** document creation is only possible if a **Document Template** library is linked in this template. Read more in: [Create Document Templates](#) on page 172.


- **Another Template's Document Creation Setup**

Use this to copy a setup from a template with a custom document creation set up.

- **Custom**

When you select this, you will see a list of customizable options:


Source	Where the document will be sourced from.
Label	The link description. You can create a custom label, such as Upload a graphic file. <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Simple</b></li> <li>• <b>Translated</b></li> </ul>
Details	Additional information such as: <ul style="list-style-type: none"> <li>• <b>Allowed Extensions</b></li> <li>• <b>Document Template Selector</b></li> </ul>

	Here you can select the already specified document templates. Read also: <a href="#">Document Templates</a> on page 171
Operation	The operation depends upon the <b>Source</b> button. For example, if you have chosen <b>Project+Folder</b> , the operations would be Copy, Move or Link the document
Sections	<p>The configured upload source is made available in these sections. By default, all the options will be available and enabled. You can deselect the sections to disable some of the locations.</p> <ul style="list-style-type: none"> <li>• the <b>Project Creation Documents</b></li> <li>• the <b>Project Creation Bill of Materials</b></li> <li>• <b>Bill of Materials</b></li> <li>• <b>Upload (Copy or Create Multiple Documents)</b></li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> You can also drag and drop multiple files onto an Upload button.         </div>
Target Folder	The destination folder

To add a new source type, click **Add Document Source**. The document sources in the list can be deleted by clicking the delete icon.

You can configure:

- a simple **Browse** link for the user to upload a document.

 **Note:** You can also drag and drop multiple files to the upload button.

- **Document Templates** from the template library. This will serve as a place holder with pre-configured settings such as attribute categories. Read more about templates in [Document Templates](#) on page 171.
- **Current Project**
- **Saved Search:** Use this option to allow the user to select a file from a saved search. When the user clicks the document reference as a link (with a custom **label**), saved search results will appear in a pop-up with all the configured options.
- **Asset Management System:** Use this to allow selecting a file from the configured Asset Management Systems. Read more in [Configure Asset Management Connections](#) on page 436

If you want to delete a template with a custom document creation setting, make sure that it is not being used by other projects/templates for document creation. If it is being used, you have to select another template in the relevant projects/templates before attempting deletion.

### 3.6.6. Document Types

As an Admin user, you can configure settings for each of the **Document Types** for a project or template in **Configure > Document Types**. These settings define what happens when you add documents to your project.

The settings are organized per **Document Type**. Per type you can set the following options:

- **Automatic Document Naming:** Use this setting to enable/disable autonaming for a specific document type. Choose **None** to disable autonaming. Choose **Default** to use the system wide autonaming settings or choose **Custom** to enter a specific naming scheme for this project or template.
- **Default Attribute Category:** Use this setting to assign an attribute category to a specific document type. Choose **None** to not use a default attribute category. Choose **Default** to use the system wide settings or choose **Custom** to select a specific attribute category.
- **Start Task for new Documents:** Use this setting to start a task of the specified type when adding a document to the project. The task is automatically started, assigned to the uploader and the uploaded file is linked to the task. Choose **None** to not start a task upon upload. Choose **Default** to use the system wide settings or choose **Custom** to select a specific task type.
- **Start Task for new Versions:** Use this setting to start a task of the specified type when adding a new versions of a document to the project. Choose **None** to not start a task upon upload. Choose **Default** to use the system wide settings or choose **Custom** to select a specific task type.

### 3.6.7. Create Project Thumbnails Automatically from Documents

As an Admin user, you can configure a setup to create automatic thumbnails from the document images.

When a new graphics or CHILI document is being uploaded to a Project or Template, the user will have an option to check if the document image needs to be taken as the Project Thumbnail.

If this option is checked, the Project thumbnail will be set as the document image after **checking and registering**.

1. Create a text **Attribute** called **Make Project Thumbnail**.
2. Set **Values** to **Restricted Set**.  
Create the check box by entering **Yes** and **No** as values of the restricted set. The values are case sensitive.
3. Create an **Attribute Category** and include **Make Project Thumbnail** in the attribute.
4. Create a **Project Template**.
5. In the project template, go to **Configure > Document Types**.
6. Specify the **Default Attribute Category** as the Project thumbnail Attribute category for the desired document types.  
The user has to select **Make Project Thumbnail** during the upload of documents to use this feature.

Attributes:

Name	Value	Type
Make project thumbnail	<input type="checkbox"/>	yes or no



**Note:** When multiple documents in a project have the attribute **MAKE PROJECT THUMBNAIL** set, each upload overwrites the previous thumbnail in the natural sequence they happen. In case of multi-document upload at the same time, thumbnail can be set from any of the document based on the sequence they are returned from OBGE.

If the documents are published from **Automation Engine**, (when the view files are generated on AE and not on the OBGE), then the project thumbnail will not change.

Changing the project thumbnail on upload is guaranteed to work, only if the upload is through WebCenter.

### 3.6.8. Deleted Projects and Templates

Admin users can view the list of deleted projects or templates in the system by navigating to **Project Management > Deleted Projects and Templates**.

The list is by default sorted by modification date showing the most recent deleted project first but sort can be performed on any other columns as well. The filter section at the top allows searching for particular projects. You can click on the project name to see the history of the deleted project/template containing all the events logged during the life cycle of the project/template, for example who deleted the project. The deleted projects and templates are only shown until the cleanup tool is run.

### 3.6.9. Project Statuses

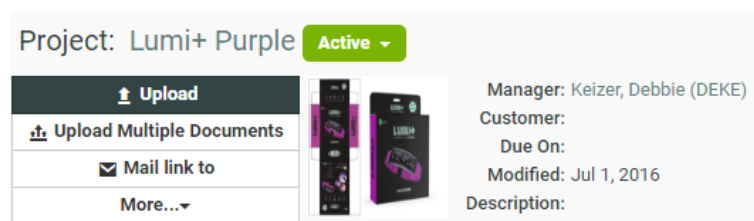
The **Project Status** feature allows you to review the current project standing. This feature can be accessed by an Admin user or a member of the Admin group, Project Managers and an User.

An administrator can add statuses in WebCenter. This works similar to task statuses (whereas the statuses are not shared). A status has a name, an icon and a type. The types are Non-active, Active, Archived and Completed. The WebCenter has the functionality to limit the actions possible in not-active and completed projects. It is most typical to add active statuses, for example: **Briefing, Design, Prepress, Printing**. An administrator can limit the statuses for a project and this can be done for every project individually.

The project status is displayed in the project header (and in available other locations such as search):



**Note:** This can be set as read only. Read more at [Prevent direct changes to Project Status](#) on page 186



The Project Manager can perform following:



- Set the Project Status.
- View Project Status.
- Search Project Status and Filter projects based on Project Status.

An administrator can limit the statuses for a project and this can be done for every project separately. Go to a project or a template as an administrator and click on the **Configure** tab. By using **Add Project Statuses** and **Remove Project statuses** (select with the check boxes and take remove from the action drop down), you can get a specific set of statuses.

An Administrator can link milestones to project statuses to see the timeline of projects in a [calendar view](#) by setting up a date/time attribute for project statuses. Each active status can have a date/time attribute linked and the same date/time attribute can be used multiple times with different offsets. The linked date indicates the intended end of the project phase, but will not trigger an automatic project status change. The actual date will depend on the related attribute value in the project context.

The administrator can decide the sequence of the statuses. This sequence is purely used for sorting. When the projects are sorted based on Project Status, this is the sequence used. The sequence is system wide.

Apart from showing the Project Status in many project overview pages (and also in the search results), the project statuses can be used in the Workflows. For example: To decide different operations or assignees depending on the current project status.



**Note:** By using the **Set Project Status** node in Workflow, you can set the status for the current project.

In the following example, let us consider five statuses allowed for this project. The Project Statuses are set as 01 - Briefing, 02 - Concept, 03 - Artwork, 04 - Prepress and 05 - Closure. The WebCenter has many more statuses, but only these statuses are allowed for this project. The statuses are in this sequence in the entire system.



**Note:** You can only decide per project whether you can have these statuses, but you cannot change the sequence of the statuses per project.

Project: Lumi+ Purple **03 - Artwork (In Progress)**

Mail link to

Manager: Keizer, Debbie (DEKE)  
 Customer:  
 Due On:  
 Modified: Jul 1, 2016  
 Description:

Documents 1 | Bill Of Materials 0 | Tasks 0 | Discussions 0 | Characteristics | Attributes | Project Information | Approval | Notifications | **Configure** | More...

Workflow Connection | Document Templates | Project Creation | Document Types | Document Creation | **Project Statuses**

Name	Active	Color	Icon
<input type="checkbox"/> 01 - Briefing (Complete)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > Closure
<input type="checkbox"/> 02 - Concept (In Progress)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > Closure
<input type="checkbox"/> 03 - Artwork (In Progress)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > Closure
<input type="checkbox"/> 04 - Prepress (In Progress)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > Closure
<input type="checkbox"/> 05 - Closure (In Progress)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > Closure

A new Project Status type has been introduced called **Archived**. You can set this status based on the stage of the project. Archive Project status is visible to users based on the setting specified by the Administrator in the **Security Preference**.

Read more on Project status as Archived [here](#).

On archiving the Project, the project is excluded in the Project list and is not shown in the **My Projects** or **Project I Manage** menu items. The Project as well as the Tasks and Documents within the project does not show up in **Search Results** or in **My Work** page.

Trying to access the Project with an URL from a notification for an archived project gives a permission denied message.

### Viewing a List of Project Statuses

The available Project Statuses can be viewed in the **Project Status** page. In the Project Status page, you can add, edit or delete the Project Status. You can also choose or add an icon, add a custom color for the Project Status and decide the sequence of the statuses. When you use custom colors, text colors on the Project status is automatically adjusted to make it visible.

To view Project status, navigate from **Admin > Project Management > Project Status**. The Project Status page appears.

Display Order	Name	Language Key	Active	Color	Icon	File
<input type="checkbox"/> 1	Non-active	PS_NONACTIVE	Non-active	Light Gray		Select Icon Choose File No file chosen
<input type="checkbox"/> 2	Briefing		Active	Light Blue		Select Icon Choose File No file chosen
<input type="checkbox"/> 3	QA		Active	Khaki		Select Icon Choose File No file chosen
<input type="checkbox"/> 4	Files uploaded by suppl		Active	Orange		Select Icon Choose File No file chosen
<input type="checkbox"/> 5	Imaging to plate		Active	Sand		Select Icon Choose File No file chosen
<input type="checkbox"/> 6	Waiting for Confirmator	L_WAITING_FOR_CONFI	Active	Light Blue		Select Icon Choose File No file chosen
<input type="checkbox"/> 7	Markiert		Active	Esko Green		Select Icon Choose File No file chosen
<input type="checkbox"/> 8	Template Uploaded		Active	Brown		Select Icon Choose File No file chosen
<input type="checkbox"/> 9	Project Created		Active	Dark Red		Select Icon Choose File No file chosen
<input type="checkbox"/> 10	Stepping in progress		Active	Red		Select Icon Choose File No file chosen
<input type="checkbox"/> 11	Waiting for Artwork	L_WAITING_FOR_ARTWI	Active	Light Blue		Select Icon Choose File No file chosen
<input type="checkbox"/> 12	Artwork creation		Active	Magenta		Select Icon Choose File No file chosen
<input type="checkbox"/> 13	Client Approval		Active	Violet		Select Icon Choose File No file chosen
<input type="checkbox"/> 14	SOBK Status1		Non-active	Custom		Select Icon Choose File No file chosen
<input type="checkbox"/> 15	Active	PS_ACTIVE	Active	Blue		Select Icon Choose File No file chosen
<input type="checkbox"/> 16	SOBK Status2		Active	Custom		Select Icon Choose File No file chosen
<input type="checkbox"/> 17	MASTER_COMPLETED	PS_COMPLETED	Completed	Esko Green		Select Icon Choose File No file chosen

### System History Logs

All Project Status related events like

- **Project Status created**
- **Project Status deleted** and
- **Project Status changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### Adding a Project Status

You can add a new Project Status through the **Project Status** page. You can also choose or add an icon, a color for Project Status and decide the sequence of the statuses.

1. Click the **Add Status** button on the **Project Status** page.
2. In the **New Status page**, type the **Name** of the status and select the **Project Status type**.

You can add multiple statuses at a time. When the new status is marked as Active, it is added just behind the previous active status. When the new status is marked as Non Active or Completed, it is added at the end of the Project Statuses list with no rules applied.

**New Statuses**

#	Name	Project Status Type
0	Project Started	Active ▼
1	Project In Progress	Non-active ▼
2	Project Discussion	Active ▼
3	Project Testing	Active ▼
4	Project Completed	Completed ▼
5		Select ▼
6		Select ▼
7		Select ▼
8		Select ▼
9		Select ▼
10		Select ▼

3. Click the **Save** button to make changes. The Project Status page appears with the new status.



**Note:** The new status will get a default color and no icon added to it. This can be changed in Project Status page.

## Editing a Project Status

You can edit the existing or newly added Project Statuses through the **Project Status** page. In the Project Status page, you can change the Name, Language key, Sequence number, Add Icon and Set Color.

### Project Statuses

+ Add Status		Delete									
Display Order	Name	Language Key	Active	Color	Icon	File					
<input type="checkbox"/>	1	01 - Briefing In Progress	<input type="text"/>	Active	Esko Green	<input type="text"/>	<input type="checkbox"/>	Briefing In Progress	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	2	01 - Briefing At Risk	<input type="text"/>	Active	Orange	<input type="text"/>	<input type="checkbox"/>	Briefing At Risk	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	3	01 - Briefing On Hold	<input type="text"/>	Active	Red	<input type="text"/>	<input type="checkbox"/>	Briefing On Hold	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	4	01 - Briefing Complete	<input type="text"/>	Active	Dark Green	<input type="text"/>	<input type="checkbox"/>	Briefing Complete	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	5	02 - Design In Progress	<input type="text"/>	Active	Esko Green	<input type="text"/>	<input type="checkbox"/>	Design In Progress	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	6	02 - Design At Risk	<input type="text"/>	Active	Orange	<input type="text"/>	<input type="checkbox"/>	Design At Risk	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	7	02 - Design On Hold	<input type="text"/>	Active	Red	<input type="text"/>	<input type="checkbox"/>	Design On Hold	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	8	02 - Design Approval	<input type="text"/>	Active	Light Blue	<input type="text"/>	<input type="checkbox"/>	Design Approval	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	9	02 - Design Complete	<input type="text"/>	Active	Dark Green	<input type="text"/>	<input type="checkbox"/>	Design Complete	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	10	03 - Artwork In Progress	<input type="text"/>	Active	Esko Green	<input type="text"/>	<input type="checkbox"/>	Artwork In Progress	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	11	03 - Artwork At Risk	<input type="text"/>	Active	Orange	<input type="text"/>	<input type="checkbox"/>	Artwork At Risk	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	12	03 - Artwork On Hold	<input type="text"/>	Active	Red	<input type="text"/>	<input type="checkbox"/>	Artwork On Hold	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	13	03 - Artwork Approval	<input type="text"/>	Active	Light Blue	<input type="text"/>	<input type="checkbox"/>	Artwork Approval	Select Icon	Choose File	No file chosen
<input type="checkbox"/>	14	03 - Artwork Complete	<input type="text"/>	Active	Dark Green	<input type="text"/>	<input type="checkbox"/>	Artwork Complete	Select Icon	Choose File	No file chosen

Type the sequence number in the **Display Order** column to change the sequence number. The change in sequence number appears only after saving the changes.

The language string key has to be added to the XML formatted language key file (wcstrings\_<2 character ISO language code>.xml for English: wcstrings\_en.xml) for all used languages. By default the language (en) has to be added.



**Note:** The language key field is not mandatory. If you want all languages to follow the same names (Not translated stage names), you leave the language key field empty.

Type the **Name** of the Project Status to change the Project Status name and click the **Save** to make changes.

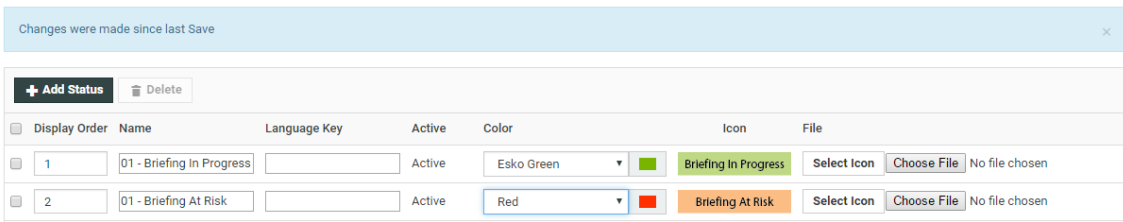
The new status will be set to Esko Green as default color. You can select a **Color** for a dropdown for each project status. This color will be used in the calendar-view of the project overview.



**Note:** You cannot add your own new color.

Once you select the required color from the drop down list, click the **Save** button to make changes. Here, the Color is changed to Red.

Project Statuses



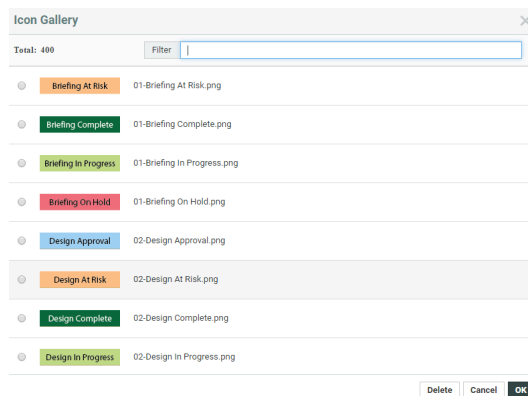
You can change an icon for the existing Project Status in the Project Status page. The Project Status icon can be selected from the Icon Gallery or you can also upload an icon. WebCenter allows JPG, JPEG, GIF, BMP and PNG files types as icons.



**Note:** The UI is optimized for an icon height of 16 pixels. Icons will be placed in overviews without any scaling.

Click the **Select Icon** button, to select the required icon from **Icon Gallery**.

In the **Icon Gallery** window, select an icon via the radio button and click the **OK** button. The gallery allows filtering of icons by its name.



Click the **Browse** button to upload an icon of your choice. The icons can be re-used for other statuses.



**Note:** You can change the icon of the built-in Project Statuses. When no icon is set, the name of the status is used instead.

### Deleting a Project Status

You can delete a Project Status and this status will be marked as deleted/obsolete in the WebCenter database. When a project status is marked as deleted, it will no longer appear in any of the locations where a Project status can be selected. The Projects and Templates having the deleted status will still keep this status. You can however no longer change projects to the deleted status. To delete a Project Status,

1. Select the required Project Status and click on **Delete** in the **Actions** menu.
2. Click the **OK** button to confirm the deletion.

### Customizing a Project Status

An Administrator can set allowed statuses for Templates or for Projects. By doing this an Administrator can limit the number of Project Statuses to be used for a specific project. When adding a new project status to the system, this status will be also added to all projects and templates. When a project is created from a template or from another project, it inherits the allowed statuses from its source. This happens only once and does not happen when the template changes later.

1. Log in to WebCenter as an Admin user.
2. Click the **Admin > Project Management** and select **Projects** or **Templates**.
3. Click the required Project or Template link from the list.
4. Click the **Configure > Project Statuses**. This displays a table with the current allowed statuses for this Template or Project.
5. Select the required Project Status from the list and then click the **Add Project Statuses** link.



**Note:** By default a blank Project will get the list of all statuses as allowed statuses.

6. Click the **Save** button to make changes.



**Note:** The Project Status cannot be re-ordered here, the order is inherited from the system order.

You can remove allowed statuses for a template or project by selecting the status and select **Remove** from the **Actions** menu.

### Searching based on a Project Status

You can search for projects based on their Project Status. Choose **Search** from the menu bar and select Project or Tasks and Approvals. On the (advanced) Project Search page and the Task Search page, the list box will contain the list of all the Project Statuses.

In addition to all individual project statuses, the list also contains the following:

- Show All (default): show all projects (or tasks of all projects).
- Show All Active: show only projects or tasks of projects with an active status.
- Show All Not Active: show only projects or tasks of projects with a non-active status.
- Show All Completed.

Project Name	<input type="text"/>
Description	<input type="text"/>
Project Status	<div style="border: 1px solid #ccc; padding: 2px;"> <span>Show All</span> <span>▼</span> <span>⌵</span> </div> <ul style="list-style-type: none"> <li style="background-color: #0070c0; color: white; padding: 2px;">Show All</li> <li style="padding: 2px;">Show All Active</li> <li style="padding: 2px;">Show All Not Active</li> <li style="padding: 2px;">Show All Completed</li> <li style="padding: 2px;">Non-active</li> <li style="padding: 2px;">Active</li> <li style="padding: 2px;">Concept Art (at risk)</li> <li style="padding: 2px;">Briefing (at risk)</li> <li style="padding: 2px;">Briefing (on track)</li> <li style="padding: 2px;">Concept Art (on track)</li> <li style="padding: 2px;">Lancement</li> <li style="padding: 2px;">PAO Contrôle</li> <li style="padding: 2px;">Erreur Contrôle</li> <li style="padding: 2px;">En attente Lancement</li> <li style="padding: 2px;">PAO Contrôle OK</li> <li style="padding: 2px;">PitStop oK</li> <li style="padding: 2px;">PitStop Avertissement</li> <li style="padding: 2px;">Pitstop Erreur</li> <li style="padding: 2px;">En cours de traitement</li> <li style="padding: 2px;">Nouvelle Soumission</li> </ul>
Created	<input type="text"/>
Modified	<input type="text"/>
Due	<input type="text"/>
Customer/Location	<input type="text"/>
Salesperson	<input type="text"/>
Project Manager	<input type="text"/>
Manager's Location	<input type="text"/>
Add Role	<input type="text"/>
Attributes...	

You can also search on **Project Status Started**, **Project Status Due**, **Project Status Completed**, **Project Status Duration**, and **Project Status Time Left** in the **Project Search** page.

### Filtering based on Project Status

In **Favorite Projects**, **Projects I Manage**, and in **Projects I am Invited to**, you can filter on all Project Statuses individually. You can also use the filters to look for a combination of statuses: Show All, Show All Active, Show All Not Active, Show All Completed.

### Archiving Projects

#### Project Status –Archived

A new Project Status type has been introduced called **Archived**. You can set this status based on the stage of the project. The visibility of Archived projects depends on the setting chosen by the Admin user in the **Security Preferences**. Admin user has an option to allow non-admin users to view the archived projects.

#### Visibility of Archived Projects

Archived projects are visible to Admin users by default. Visibility to archived projects for other users are set optionally by the Admin users in the **Admin > preferences > Security Page**. Enabling **Allow non-administrators to see Archived Projects** option makes the Projects in **Archived** status visible.



**Note:** Changing the option triggers search index re-crawl and that may interfere with **Search Results** on Archived projects until the recrawl is complete.

When this option is not selected by the Admin user in the security preferences, changing the status by the Project Manager (who is not an Admin user) to **Archived** restricts the access to view the project for all users in the project including the Project Manager.

Once the project is archived, the project is excluded in the Project list and hence is not shown in the **My Projects** or **Project I Manage** menu items. The Project as well as the Tasks and Documents within the project does not show up in **Search Results** or in **My Work** page.

Trying to access the Project with an URL from a notification for an archived project gives a permission denied message.

### Project Status –Set Status to Archived

When the Project is set to a project status, which is of Project status Type Archived, the project is no longer visible to anyone except Admin user unless enabled by Admin user.

### Project Status Filter

Admin users can now set the Project Status type to Archived. From the WebCenter 20 onwards, Project status can be filtered/ searched as Active or Completed or Non-Active or Archived.

### Setting a Project Status to Active or Non Active

An Administrator can set a project to Active by giving it an Active status. Whether a status is active or not is determined when the status is added.

If a project has been set to a Non Active status, by default the permissions for all members are masked with the View and Download permissions, so that these two permissions are still enabled if and only if they were enabled already, while all other permissions are disabled.

However, whether certain actions can still be performed in non-active projects, also depends on the security settings for the system. An Admin user can change these settings on the **Security** page (**Preferences > Security**). It is possible to allow or disallow changing attributes, changing members and document operations in inactive projects.

### Prevent direct changes to Project Status

As an Admin user, you can prevent project status changes by the project manager. When this option is enabled, the project status becomes read-only in the header of a Project.

To prevent direct change to Project status, navigate to **Projects > Configure > Project Statuses** in the Project template and disable the option **Project Status can be modified by Project Manager**. All the projects (also previously) created from the template will adhere to this setting.

By default, the option is checked in the template, and allows Project Managers to change the Project Status.

However, the Project status can still be changed:

- when a task is completed and the task is configured to change the project status on completion
- when a workflow node changes the Project Status
- by admins via an SDK call changing the project status
- by admins in a saved search allowing to change the project status.



- if the project is not created from a project template.

### 3.6.10. JavaScript Rule Action

Admin Users can use the **JavaScript Rule Actions** to execute JavaScript from a rule without a workflow. In the **JavaScript Rule Actions** you can **Add** a rule, Edit or delete the rules.

#### System History Logs

All JavaScript Rule Action related events like

- **JavaScript Rule Action Created**
- **JavaScript Rule Action Deleted**
- **JavaScript Rule Action Changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

You can read more about API's for WebCenter [here](#).

#### Add JavaScript Rule Action

You can customize **Rules** to perform specific actions. This can be done by adding rules which are written and executed in JavaScript.

To add a rule in JavaScript:

1. Click **Admin > Project Management > Add JavaScript Action Rule** .
2. A **Edit JavaScript Rule Action** window is opened on selecting this option.
3. Enter the name for the rule, description and the script. Save the Rule to view the list of JavaScript Rules.
4. To edit an existing rule, double-click on the **JavaScript Rule Action** from the list. To delete the rule, click once to enable the delete icon on the row selected.

#### View JavaScript Rule Action

1. Click **Admin > Project Management > Find Locked Documents**.
2. Either filter for users by entering (part of) their last name in the **Search users by last name** field, or click **Go** right away to see all locked documents.
3. Select the document(s) to unlock by selecting the corresponding boxes.
4. Click **Unlock checked items**.


### 3.6.11. Delete View Files

View files (that make files viewable in the WebCenter Viewer) take a certain amount of disk space. If necessary, Admin users can delete those view files.



**Note:** You can only delete view files per project (for all of the project's documents at once), not per document.

1. Use the [Search](#) to find the projects whose view files you want to delete.

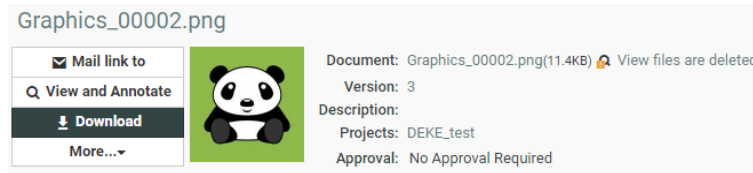
2. Select the projects whose view files you want to delete, and click **Delete View Files** in the actions menu .

Confirm your choice by clicking **OK**.



**Note:** When deleting view files, Viewer annotations, document metadata and thumbnails are kept.

You can see that the view files have been deleted on each document's **Documents Details** page.



### Regenerate View Files

Users can regenerate documents' view files as needed provided that:

- they have the **View** permission on those documents,
- those documents' view files can be regenerated.



**Note:**

Most view files can be regenerated, except for:

- page lists coming from Automation Engine,
- documents uploaded via Automation Engine with the **Upload only view files** option.

If you need to regenerate the view files:

1. Go into the project whose view files you deleted.
2. Select the documents for which you want to regenerate view files.
3. Click **View and Annotate** in the actions menu.

### 3.6.12. Configure a Landing Page for a Role



Administrators can configure the start page of a Project per Role in the Project Template. This means that when a particular Role-User come into the Project Details, he or she will see the specified **Landing Page** first. This feature allows you to configure different start pages for different types of users(Roles).

To configure **Landing Page** per Role:

- Go to **Project Template > Details > Configure > Landing Page** section. Click **New Landing Page**.

Role	Landing Page	Details
<input type="checkbox"/> Legal	Documents Page	Folder name or empty for root folder
<input type="checkbox"/> Marketing	Attributes Page	Attribute Category View or empty for Default view
<input type="checkbox"/> Technical	Tasks Page	

- Specify the **Role** and the **Landing Page**. Choose from the following pages.

Options	Description
<b>Documents</b>	Specify the folder in the <b>Details</b> section.
<b>Attributes</b>	Specify the <b>Attribute Category View</b> in the <b>Details</b> section.   <b>Note:</b> If you leave this section empty, the user will see the <b>Default View</b> .
<b>Saved Search</b>	Specify the name of the <b>Saved Search</b> in <b>Details</b> .   <b>Note:</b> The Role-user will be directed to the Saved Search which is plugged into the User's <i>Project Details</i> menu.
<b>Approval Page</b>	Details section is read-only.
<b>Tasks</b>	Details section is read-only.
<b>Bill of Materials</b>	Details section is read-only.
<b>Dashboard</b>	Choose the dashboard that you require as landing page. You can also create a new dashboard from this drop down.

- The Landing Page configuration is copied when you copy a Template or Project.
- When you **export** your template, the landing page configuration is included in the XML.

### 3.6.13. Configure Rules in a Project

#### What is a Rule?

You can configure a **Rule** to execute specific **Actions** based on one or more Trigger events. The Rule sets reside in Project Templates and will be applicable in all Projects created from them, including the previously created ones. This administrator feature lets you establish communication between Child and Parent Projects or between any two Projects. See an example use case at the end of this chapter.



**Note:**

You need the **WebCenter Task Management Advanced** or **WebCenter Life Cycle Management** license to be able to define Rules.

To set up **Rules**, go to **Project Template > Configure > Rules Setup** tab.



**Note:** Although Rules are configured within a Project Template, you can create Rules that are triggered after the project is created from the template.

### Triggers

A **Trigger** is an event that happens in the system (for example, the Child Project Status changes to **Completed**). A successful Trigger condition will execute a Task based **Action**.

You can specify multiple triggers and actions in a Rule. When one Trigger event(as specified in the Rule) happens, the system evaluates the Rule and executes the corresponding Action(s).

See the supported Triggers below:

- **Project Status Change:** The **Action** is executed when the Project Status changes.
- **Project Attribute Change:** The **Action** is executed when the specified Project Attribute changes. You can specify the attribute from a drop-down.
- **Project Due Date Change:** Any change in the Project Due Date will trigger the specified **Action**.
- **Date/Time Reached** trigger lets you define an exact time stamp to execute the Rule. When the server time passes the Trigger time, the Rule will be executed. There are 2 options:
  - Specific Date: the actions will be executed on the specific date and time
  - Date in Project + Offset: the actions will be executed on the selected Project Due Date or Date/ Time attribute plus or minus an offset of days and/or hours.



**Note:** The calculation is done in working days/hours.

### Actions

- **Start Task:** This action launches a Task in the same Project where the Rule is configured. Specify the **Task** by selecting it from the drop-down.
- **Execute Javascript:** This action launches a specified **JavaScript Rule Action**. You can specify one from the **Javascript Rule Actions** configured in the system.

It is possible to configure multiple actions by clicking on the '+' sign. Use 'x' to remove existing actions.

### Example

See the example of a Project Template's Rule below. This Rule gets executed when the specified Date/Time Reached.

**Edit Rule**

Rule Name\*

Enabled

Description

Order

When any of these Triggers occur

Date/Time Reached

Execute JavaScript

Warning: Calculating date/time triggers can potentially take a while. This rule will be applied in 4 projects.

The Javascript Rule Actions are configured in **Admin > Project Management > JavaScript Rule Actions**. See the example script below.

```
var children = API.getProject().getChildProjects(); if(children.length > 0){ var atRisk = false; var inDelay = false; for(var i = 0; i<children.length; i++){ var child = children[i]; if(child.getStatusName() != 'Completed'){ atRisk = true; } else if(child.getStatusName() == 'Non-active'){ inDelay = true; } } if(atRisk){ API.getProject().getAttribute("mvbe Campaign State").setValue('At risk'); } else if(inDelay){ API.getProject().getAttribute("mvbe Campaign State").setValue('In delay'); } else { API.getProject().getAttribute("mvbe Campaign State").setValue('On schedule'); } }
```

Two days before the milestone, this Rule will get executed. Depending on the child Projects' statuses, the Program Project's status will be updated.

## 3.7. Advanced Search Setups in WebCenter

---

### 3.7.1. Advanced Searching

There are advanced search features using which you can design and create dedicated search pages. You can:

- Save a **Search** with advanced settings.
- Find assets which were stored in WebCenter with certain **Attributes** or with a certain project criteria. This will help you to:
  - Find, collect and download pictures for a certain product line. You can also send these as [download links](#).
  - Search according to criteria to find required Packaging types: for example Carton Boxes.
  - Search based on **Project Status**. For example, you can find all projects with a status **Initial design**. Display the Project Status as text, icon, color or both. Select your Project Status setting as **Show Color Label** to get the project status bar in your search.
  - Perform bulk operations.
- Alter the column order in the View column and search based on Projects or Documents or Tasks and Approvals and choose to not show the same parameter in the search results.
- Refine **Search Results** using a search parameter panel. Using this, users can limit the list of items to be searched.
- Define the sequence of columns in results. Alter the column order in the **View** column and search based on **Projects** or **Documents** or **Tasks and Approvals** and choose not to show the Project Name or Document Name or Task and Approval name in the search results.
- Create dedicated **Global Saved Searches** for Users. Global Saved Searches are accessible to all users and hence advanced search option access can be given judiciously to users. You can customize these as **Asset Browsers** which can be incorporated into the menu.
- Create Saved Searches with [Projects Calendar View](#) on page 213.
- You can search by selecting multiple options in drop downs or even type the text to search.
- If an action has been done as delegate of another user, it is shown in the corresponding field in search results. For example, in the field **created by** for a task search.
- Click on any of the gear icon in the date/time fields to **Show Time** except for attributes and search is either sorted or filtered on this. For Project Status, gear option gives the configuration options like Automatic or Label and Icon, Only Icon, Only Label, and Color Label. For **Pending Approvers**, gear option gives configuration option to **Show Assignee details (original Group /Role)**.
- Each field that represents a project, document or task has a link configuration option, e.g. project name, document reference attribute. The link can be customized to Default, No Link, Project/Document/Approval Details page, Task Execution page, Viewer or Dashboard Popup. When the option Dashboard Popup is selected, the user can select which dashboard will be shown.

#### System History Logs

All Saved Search related events like

- **Saved Search created**
- **Saved Search deleted** and
- **Saved Search changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### 3.7.2. Creating Advanced Saved Searches

Normal and keyword searches may be saved for future use as a **Saved Search** and can be plugged into menu items (of the main menu or Project details menu), **My Work** and as a document source during project creation and in document referencing.

To access saved searches, click **Search > Saved Searches**. Shown below is a sample Saved Searches page.

Searches can be saved as:

- a **Personal** search visible only to the individual user.
- a **Global** search visible to all WebCenter users.

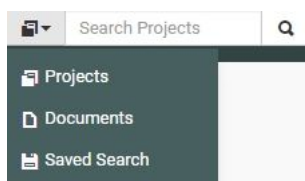


**Note:**

1. For each Global Saved Search, an Administrator can determine a set of Groups/ Companies/Locations whose members can view this Saved Search.
2. It is not possible to set Visibility for Personal Saved Searches.

Saved Searches can be configured with advanced [Drilldowns](#) and extensive and visually enhanced [Dashboards](#). You can plug these

- To execute a Saved Search, simply click its name from the **Saved Searches** page. Or select it from the Search window in the menu bar.



- To edit a saved search, click **Edit Search**.
- To **Make Search Personal**, click
- To **Make Search Global**, click

**Smart Names** enabled Searches do not have the **Make Search Personal** option.

- To create Global Saved Searches dedicated to a company or group, click **Edit Visibility** link. In the next window, select the **Available Groups, Available Companies/Locations** to whom you want to give the exclusive visibility. In this case, if you assign the visibility to a group, a company or location, the search will be visible to either the group or the company or both.

- Visible to all
- Visible to selected Groups and Companies

Available Groups

Available Companies/Locations



Add



**Note:**

If you select a company without specifying any of its locations, all the company locations will be able to access the saved search.

If you remove the **Available Groups/Companies /Locations**, the visibility settings will be modified.

- To delete saved searches, select them and click **Delete**. Use **Select All** and click **Delete** to delete all of them.

### Search Panel Design

The saved searches can be setup for Projects, Documents and Tasks and Approvals. These saved searches can be edited by an administrator. The administrator decides for each saved search (and for each operation) whether these operations are allowed or not.

All users can design searches via the Search Results options. However, administrators get an extra check box **Search Panel Design**.

In the Search page:

1. Select the **Search Panel Design Options**. The **Visibility, Label, Row, Column** will appear in the search page.

Additionally, the check boxes in the View column will become drop downs when enabling this option.



Search for Documents

Fill in one or more fields. Prefer less fields? Try Keyword Search.

Search for:

Use Advanced Search Characters ?

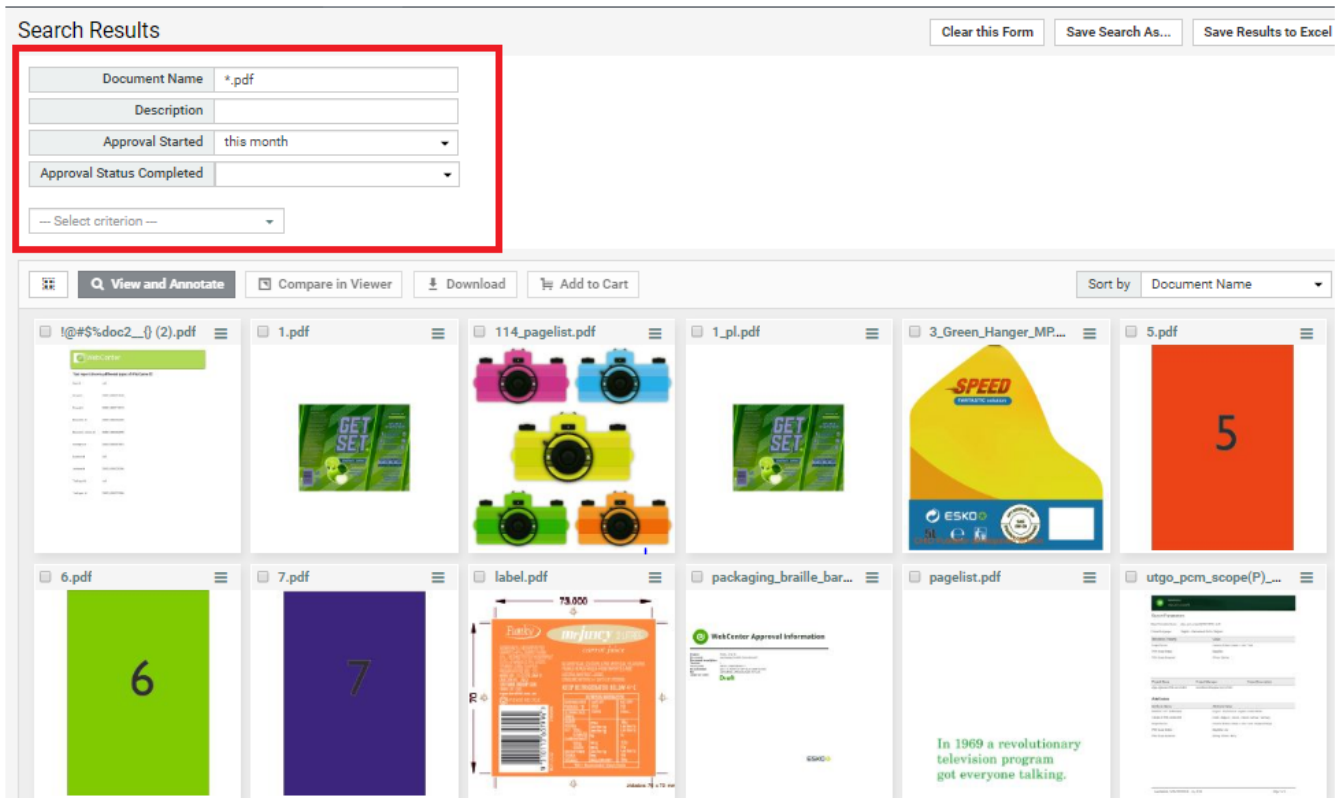
Search Panel Design  Enable SmartNames ?

	Label	Visibility	Row	Column	View	Column Order	Editable	Sort
Document Name	<input type="text"/>	Hidden			Visible	1		<input checked="" type="checkbox"/>
Version Author	<input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Author's Location	<input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Description	<input type="text"/>	Hidden			Visible	2		<input type="checkbox"/>
Created	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Modified	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Keywords	<input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Attribute Category	<input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Attributes...								
Reference	Matches <input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Referenced by	Matches <input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Approval Status	<input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Approval Status Completed	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Approval Started	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Approval Due	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Approval Completed	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Approval Duration	= <input type="text"/> +/- <input type="text"/> days	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Approval Time Left	= <input type="text"/> +/- <input type="text"/> days	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Current Approval Stage	<input type="text"/>	Hidden			Hidden			<input type="checkbox"/>
Pending Approvers	<input type="text"/>	Hidden			Hidden		<input type="checkbox"/>	<input type="checkbox"/>
Reason(s) for Rejection	Default <input type="text"/>	Hidden			Hidden			<input type="checkbox"/>

Here:

Column	Description
Visibility	Determines whether the criteria will appear in the saved search top panel. The available values are Hidden, Available and Visible.
Label	A label is the name of the criteria as it needs to appear. A label can be given regardless of the setting of visibility. The label will automatically applied to the column header in list layout and will be visible in grid layout too. If the field is left empty then, the label will be the same as the criteria and not different to other localized languages.
Row and Column	Position where the criteria will appear. Row and column are filled in automatically but can be changed by the user. The second criteria can have the same values for row and column. For example: If the Project Name criteria has the value Row 1 and column is 2, the criteria will appear in column two of the UI.

For example; when the **Visibility** is set to **Visible** for **Approval Completed**, the following results page appears.



When your users use this search (for example as an asset browser), they can use the design panel to further refine the criteria. You can now

### Set up first visible Column in Search Result

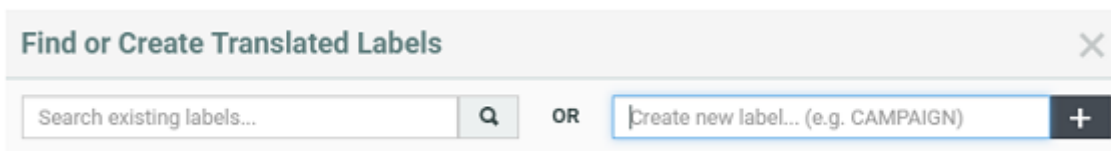
In WebCenter 20.0, you can configure any searchable field as the first column of the Search Results other than the name of the Project/Document/Task. In fact, you can choose to hide the Name column and/or choose any another column as the first column. Inline actions are shown on top of the first column.



**Note:** In Card Layout header, Focus Layout header and Selection section, some of the fields like calendar view, text statements, rich text attributes, project/approval/task statuses, users/groups and company /locations are not supported.

### Internationalize Labels for Search

Search labels can be also be translated to other languages. To find or create new translated labels, select the blue global icon in the **Search Panel Design** options. A **Find or Create Translated Labels** window is opened.



You could find translations for search labels or create a new label in the language you want it translated.

[Find or Create Translated labels](#) on page 324

## Setting Search Result Layout Options

You can configure advanced searches for Projects, Documents and Tasks and Approvals. Using **Show Result Layout Options**, you can configure the search results interface for the users. You can also enhance these searches with [Dashboards](#) to display the search results in a graph/chart/counters.

The available options are different depending on whether it is a Project / Document / Task search. Some of the options available commonly are

- You can use **Use a custom Search Title** to modify or rename the Search Title while viewing the results. The custom search title field is translatable which is indicated with the blue globe icon.
- **Limit cell height ( expand by request)** which is enabled by default limits the height of the results shown. You can turn off this option to view all the content of the cells.
- You can get the **Larger Thumbnail on Hover** in the search results page by hovering on the search result row. Optionally you can also disable this action. You can also enable the larger thumbnail on click for which a button is displayed in the right corner of the image.
- You may choose to hide the button to show/ hide the thumbnail in the results by choosing **Show "Hide Thumbnail" Button**.
- You also have an option to choose whether the thumbnail display will be as per the **Default (User Preferences)** or **Show Thumbnail** or **Hide Thumbnail**. This option is available for only Projects and Documents search.
- You can alter the **Column order** and select whether or not you want to make fields visible in the View column. This allows you to order the results based on some fields, and display entirely different search fields/columns in the result page.

You can also hide the first field namely Project Name or Document Name or Name ( for Tasks and Approvals Search) by unchecking it.

- Enable **'Show as Grid/List/Cards' Button** to show this button for Documents and Projects Search results.
- Choose the units to be used when exporting to Excel in the **Save Search Results** option. You choose to export the results in either Metric, Imperial or Use User Preferences. You can also configure the order of search results. Read more about [Configured Order](#) on page 205.
- Choose whether to **Show clear this form** button in the search results layout.
- Allow Changing Attribute Category, where-in the Change Attribute Category will show up in the actions bar for Projects and Document Searches.
- Enable/disable the **Table Bulk Actions** per saved search. You can check the **Show Bulk Edit Actions for fields marked as editable**. In List layout in Search Results page, you can still access bulk editing by clicking on the pencil icon (inline) in the column header.
- Display Labels in a grid layout.
- Set up a [Drilldown](#).
- You can enable or disable the **Save this Search, Save Search Results** and **Search** buttons to customize your searches.

### Configuring Initial Search Results Style

For Document and Project searches, you can also configure **Initial Search Results Style**. Select from:

- Default (determined by the User's Preferences)
- List
- Grid
- Card
- [Focus Layout](#)

The selected view style will be applied on the Search Results page instead of the default user preference.



**Note:** Users can change the view of the search results by clicking the Show as Grid/List/Cards/Focus buttons if these are not disabled.

### Project Search Layout Options

To select your options for project, go to **Search > Projects > Show Result Layout Options** > You can choose to:

- Show the search result as Grid, List or Card.
- Configure the thumbnail: show, hide, link to a specific dashboard or page.
- Choose the units to be used when exporting to Excel in the **Save Search Results** option. You choose to export the results in either Metric, Imperial or Use User Preferences. You can also configure the order of search results. Read more about [Configured Order](#)
- Choose whether to **Show clear this form** button in the search results layout.
- Display the Project Status as text, icon, color or both. Select your Project Status setting as **Show Color Label** to get the project status bar in your search.
- Allow Changing Attribute Category, where-in the Change Attribute Category will show up in the actions drop-down.
- Display Labels in grid layout.
- Setup advanced options like [Search Results Dashboard](#) and [Drilldown](#).

### Document Search Layout Options

In **Document** searches, you can configure [Individual Result Actions](#) and Display options. To allow an operation or a display option, keep it enabled.

**Result Layout Options**

**Search Results General**

Search Title

Use a custom Search Title

Background Color

#5f5f5f

Other Display Options

Show "Save this Search" Button

Show "Clear this Form" Button

Show Search Button

Show Cart

**Individual Result Actions**

Type

Default (from Menu)

Approve  Reject

Comment  View in 3D

View and Annotate  Open in ArtiosCAD

Download  Define Document Attributes

Approval Info  Mail Download Link

Mail link to  Upload New Version

Lock  Rename

Add to Cart  Delete

Custom Actions: default

Tagged actions will only show up if the tag is listed here. Example: 'tag1, tag2'. Enter \* for all actions.

**Table Bulk Actions**

Show "View and Annotate" action

Show "Compare in Viewer" action

Show "Download" action

Show "Add to Cart" action

Show Bulk Edit Actions for fields marked as editable

Allow Changing Attribute Category

Allow sending Download Mail for Multiple Documents

Custom Actions: default

Tagged actions will only show up if the tag is listed here. Example: 'tag1, tag2'. Enter \* for all actions.

Show Project Creation Link

**Results Table**

General

Limit cell height (expand on request)

Labels

Show Labels in Grid Layout

Set Labels in Grid Layout in bold

**Layout**

Initial Layout

Default (User Preferences) | List | Grid | Cards | Focus

Allow user to switch to a different layout

Focus Layout

Enable Focus Layout

Default Dashboard

**Thumbnails**

Initial Thumbnails

Default (User Preferences) | Shown | Hidden

Allow user to "Show/Hide Thumbnails"

Larger Thumbnails on Hover

Only After Button Click

**Save Search Results to Excel**

Show "Save Search Results" Button

Use following units when exporting:

Metric (mm, cm, dm, m)

Use following column order when exporting:

Use Configured Order

**Drilldown**

Show Drilldown using Saved Search

**Asset Browser**

Lists in Left Tree Panel

Type	Name	Depth	Height
+ Add List			

Tree Panel Width

300 px

Image Area Style

Left panel only (no images)

Allow Changing Image Area Style via Dropdown

Enable **Show Cart** to show the cart with the selected documents. You can perform actions such as create a project or clear from cart.

You can also set up document searches as [Asset Browsers](#).

Search Results

Save This Search | Save Search Results

Currently in your Cart

+ Create Project from Cart | Remove from Cart | Clear Cart

01\_Disappearin Back2... | 01\_Disappearin Front... | 01\_Disappearin Front2... | GET SET\_BOTTLE\_BL... | GET SET\_MULTIVITS... | Bollin\_Test\_Graphic\_R...

View and Annotate | Compare in Viewer | Download | Add to Cart | Create Project from Selected

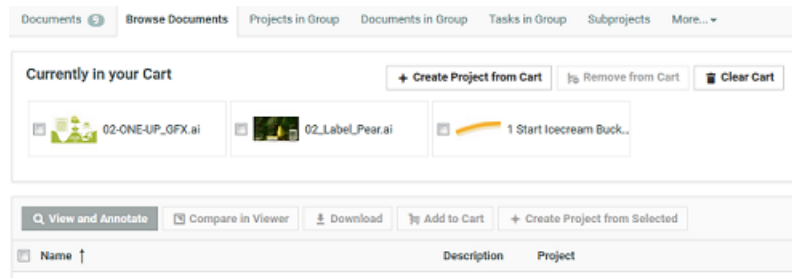
Sort by: Reversed Modified



**Note:** Add to Cart allows you to add documents to the cart.

If the option **Show Cart** is enabled in a Saved Search, the cart will be displayed in all the locations where the Saved Search is used.

- Saved Search configured in **My work, Document Details** and **Project Details**

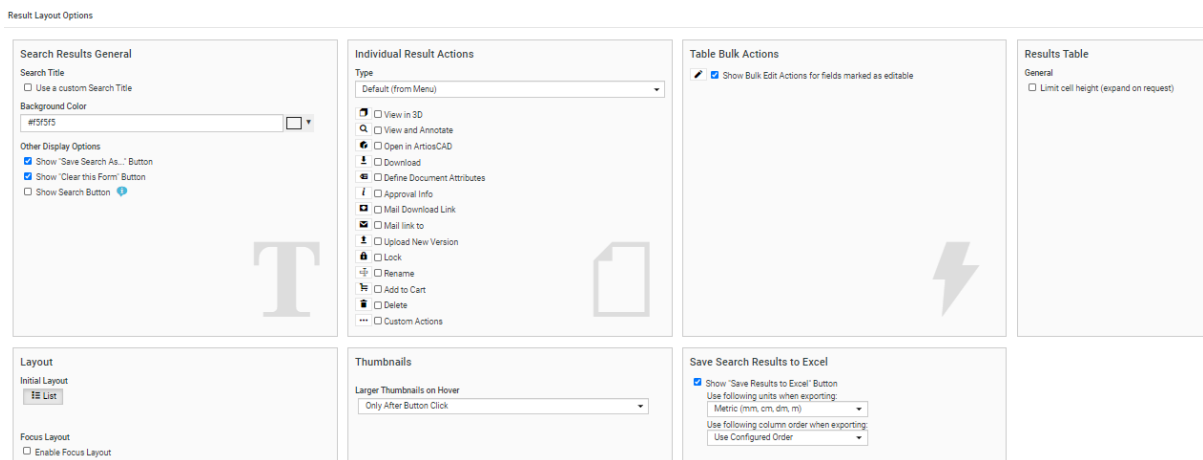


- **Cart** will not appear in Searches used as **Document Source**.

### Tasks and Approvals Search Result Layout options

Navigate to **Search > Tasks and Approvals > Show Result Layout Options**.

You can also configure [Individual Result Actions](#).



### Custom Actions in Search

When you configure custom **Action** buttons for Searches. You can enable or disable those **actions** in specific Saved Searches.

This can be done by defining a **Tag** for the **Action** defined in the custom menu.

To have Custom Actions in Saved Searches:

- [Create Custom Search Actions](#)
- Specify a **Tag** for the custom Search Action. Save the menu and apply to the User(s).
- Create a Search. In **Result Layout** options, enable **Custom Actions** and specify it with the exact **Tag**.

- In the Search Results page, you will be able to see the custom Action that you configured.

### Persistent Search Results

Search Results selection is persistent and the selection is kept while you remain on the Search Results page. You can navigate to another page of the search results, or re-sort, or filter from the design panel, or use facets, or add available columns, and so on. The selection is available while you remain on the same WebCenter page and do not execute any other actions on the selection.

The number of items selected is indicated in a counter in the header. You can view the thumbnails of the selection by clicking the counter. Next to the thumbnail, it is also possible to view either the

- Document Name and Project Name for Document
- Project Name and Project Description for Projects
- Task Name and Project Name for tasks ( only available if a search dashboard is configured)

The items are added in the persistent selection section as in the order in which you select the items. So, when you select a new item to be added to the persistent selection, it is added to the top of the list. When multiple items are selected, the items are added and ordered the same way as they were on the page.

Each item can be removed individually from the Selection or you can remove all.

### Focus Layout

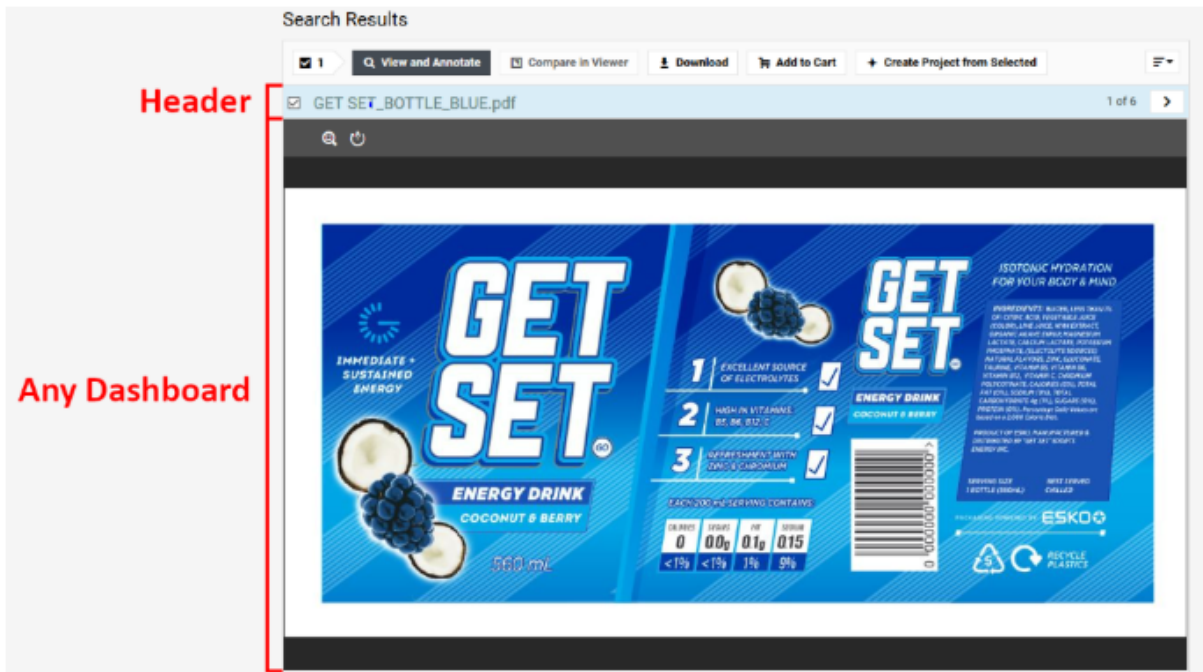
Focus layout option shows results of **Document, Project or Task and Approval** Search. Focus layout provides a better visual representation and an immersive experience of the images in the search results.

When Focus Layout is used to display the **Search Results**, the results page displays a single item at a time. You can select the viewed result with the check box in the top left. In the top right, you can navigate through the results or can go directly to a result by providing the number. The selected search results can be viewed when the selection counter in the header is expanded. Read more about [Persistent Search Results](#) on page 201 .

When enabling the Focus layout, dashboard can be created newly or can be selected from the existing dashboards.



**Note:** When a Task Search results are viewed with Focus layout, the Dashboard existing in the respective Task Type is shown if it exists or else the dashboard specified for focus layout is considered.




Focus layout utilizes the full screen for a single search result, allowing you to view the individual search result items without opening a Document details or the Viewer window.

This can be combined with persistent selection and Viewer dashboard block, to click through a set of search results and decide which ones to include and which ones to omit for a specific operation.

Focus Layout is enabled by default for Document searches, whereas for the Project and Task and Approval search, it has to be specifically enabled by the Admin user.

### Individual Result Actions

You can configure standard document operations like  in the document or Task and Approval **Search Results** page. For example, from this page, you can send download links for the selected documents.



**Note:** In Tasks and Approvals Search Result page, the Document actions are only available for approvals. The actions apply to the document on which the approval is setup.

There are two options to configure namely Default and Custom.

- Admin users can see the check boxes available in the **Default (from Menu)** like Approve, Reject, Comment, View and annotate, Define Document Attributes, Lock and so on

You can navigate from go to **Search > Documents** and click on the **Show Result Layout Options** link.

Select the option you require to be displayed in your search result.




### Individual Result Actions

Type

Default (from Menu) ▼

<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Approve	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Reject
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Comment	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> View in 3D
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> View and Annotate	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Open in ArtiosCAD
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Download	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Define Document Attributes
<input type="checkbox"/> <input type="checkbox"/> Approval Info	<input type="checkbox"/> <input type="checkbox"/> Mail link to
<input type="checkbox"/> <input type="checkbox"/> Upload New Version	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Lock
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Rename	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Add to Cart
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Delete	
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Custom Actions <input type="text" value="default"/> <input type="button" value="i"/>	

Tagged actions will only show up if the tag is listed here.  
Example: "tag1, tag2". Enter \* for all actions.



By default, the operations selected in the image are enabled for Document search whereas for **Task and Approval** search, the options **Approve**, **Reject** and **Comment** are only enabled. You can also add Custom actions. Read more on configuring custom actions [here](#).

- When you choose the type as **Custom**, then you further configure icon and color for each of the action. You can also select the style as either **Icon** or **Icon and Label**.

### Individual Result Actions

Type

Custom...

Action	Icon	Color
Approval Info	<i>i</i> Actions-	#5bc0de
Approve	✓ Actions-	#d9534f

Add Action

Style

- Icon and Label
- Icon Only
- Icon and Label



**Note:** You can configure the search results layout options for:

- Document Search Results
- Saved Searches used in custom project/document menu items
- Saved search based **My Work** page

These actions will not work in the Saved Searches used as document sources in Project Creation and Document References.

### Show Additional Project Search Criteria

You can use the **Show Additional Project Search Criteria** option as a advanced search for Documents, Tasks and Approvals in saved searches.

Project Name   6

Show Additional Project Search Criteria

After selecting **Show Project Search Criteria** option, the following options appear:

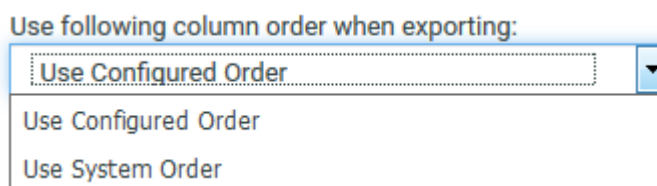
Using these you can search on project features when searching for **Documents** or **Tasks and Approvals**. Any of the project property or attribute can be used as a search criterion for Document searching and for Task and Approvals searching.

For example, you can search for the tasks in projects of a certain customer and what is the progress currently going on for a customer. You can also use the Project start date, completed date etc to arrive at the duration and filter on the other fields.

### Configured Order

The order of columns for search results saved to excel files are now configurable by the admin user.

To enable this, choose the **Configured Order** in the **Use following column order when exporting** drop-down.



When you choose this option, the order of the columns in the excel file saved is the same, as the order of the columns in the **Search Results** page. This configuration is the default for all the new searches.



**Note:** All the saved searches that were created in WebCenter Versions 16.1 or earlier will have **Use System Order** by default and their order can be reconfigured.

### Define Search Result Options

You can define which fields needs to be displayed for each search result. By entering numbers, you can change the sequence of the columns or the sequence of the information in the grid cells. You can choose to make the view of the field in the results either Available, Visible or Hidden



**Note:** When you enter an existing number, all others shift to upward numbers. In case of list layout, this information will be displayed in columns.

Search Results Options				
View	Column Order	Editable	Sort	Order
Visible	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1 ▲
Hidden ▼		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2 ▼
Hidden ▼		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4 ▲
Visible ▼	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3 ▼
Hidden ▼ ⚙		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5 ▲
Hidden ▼ ⚙		<input type="checkbox"/>	<input type="checkbox"/>	



**Note:**

Click on any of the **Gear** icon to **Show Time** for the date / time fields. For Project Status, **Gear** icon gives the configuration options like **Automatic** or **Label and Icon**, **Only Icon**, **Only Label**, and **Color Label**. For Pending Approvers, **Gear** icon allows you to configure **Show assignee details (original Group / Role)**.

Search Results

Clear this Form Save This Search Save Search Results

Project Name Drupa16\_Library\* Due [dropdown] Project Status Show All [dropdown] [icon]

View and Annotate [icon] Compare in Viewer [icon] Download [icon] Add to Cart [icon]					
Name ↑	Brand	Sample	Flavor	Project Modified	
GET SET_BOTTLE_BLUE.pdf [icon] [icon] [icon]	Get Set	Label	Coconut & Berry	May 17, 2016	
GET SET_BOTTLE_BLUE_NOCAD.pdf	Get Set	Label	Coconut & Berry	May 17, 2016	
GET SET_BOTTLE_GREEN.pdf	Get Set	Label	Apple+Lime Twist	May 17, 2016	
GET SET_BOTTLE_GREEN_NOCAD.pdf	Get Set	Label	Apple+Lime Twist	May 17, 2016	
GET SET_BOTTLE_ORANGE.pdf	Get Set	Label	Tropical Blend	May 17, 2016	
GET SET_BOTTLE_ORANGE_NOCAD.pdf	Get Set	Label	Tropical Blend	May 17, 2016	

In case of grid layout, this information will be displayed in each cell either below the thumbnail or to the right of the thumbnail.

Search Results

Clear this Form Save This Search Save Search Results

Project Name  Due  Project Status Show All

View and Annotate		Compare in Viewer	Download	Add to Cart	Sort by	Name
	Name: GET SET_BOTTLE_BLUE.pdf Brand: Get Set Sample: Label Flavor: Coconut & Berry Project Modified: May 17, 2016		Name: GET SET_BOTTLE_BLUE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Coconut & Berry Project Modified: May 17, 2016		Name: GET SET_BOTTLE_GREEN.pdf Brand: Get Set Sample: Label Flavor: Apple+Lime Twist Project Modified: May 17, 2016	
	Name: GET SET_BOTTLE_GREEN_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Apple+Lime Twist Project Modified: May 17, 2016		Name: GET SET_BOTTLE_ORANGE.pdf Brand: Get Set Sample: Label Flavor: Tropical Blend Project Modified: May 17, 2016		Name: GET SET_BOTTLE_ORANGE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Tropical Blend Project Modified: May 17, 2016	
	Name: GET SET_WRAPPER_BLUE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Coconut & Berry Project Modified: May 18, 2016		Name: GET SET_WRAPPER_GREEN_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Apple+Lime Twist Project Modified: May 18, 2016		Name: GET SET_WRAPPER_PURPLE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Berry Mix Project Modified: May 18, 2016	
	Name: GET+SET_WRAPPER_BLUE.ai Brand: Get Set Sample: Energy Bar Flavor: Coconut & Berry Project Modified: May 18, 2016		Name: GET+SET_WRAPPER_PURPLE.ai Brand: Get Set Sample: Energy Bar Flavor: Berry Mix Project Modified: May 18, 2016		Name: LUMI_PLUS_CARTON_BLUE.pdf Brand: Lumi + Sample: Sports Watch Flavor: Blue Project Modified: May 9, 2016	

In case of card layout, the information will be displayed on the back of the card, which can be viewed on clicking the card.

Search Results

Clear this Form Save This Search Save Search Results

Project Name  Due  Project Status Show All

View and Annotate		Compare in Viewer	Download	Add to Cart	Sort by	Name
	Name: GET SET_BOTTLE_BLUE.pdf Brand: Get Set Sample: Label Flavor: Coconut & Berry Project Modified: May 17, 2016		Name: GET SET_BOTTLE_BLUE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Coconut & Berry Project Modified: May 17, 2016		Name: GET SET_BOTTLE_GREEN.pdf Brand: Get Set Sample: Label Flavor: Apple+Lime Twist Project Modified: May 17, 2016	
	Name: GET SET_WRAPPER_BLUE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Coconut & Berry Project Modified: May 18, 2016		Name: GET SET_WRAPPER_GREEN_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Apple+Lime Twist Project Modified: May 18, 2016		Name: GET SET_WRAPPER_PURPLE_NOCAD.pdf Brand: Get Set Sample: Label Flavor: Berry Mix Project Modified: May 18, 2016	
	Name: GET+SET_WRAPPER_BLUE.ai Brand: Get Set Sample: Energy Bar Flavor: Coconut & Berry Project Modified: May 18, 2016		Name: GET+SET_WRAPPER_PURPLE.ai Brand: Get Set Sample: Energy Bar Flavor: Berry Mix Project Modified: May 18, 2016		Name: LUMI_PLUS_CARTON_BLUE.pdf Brand: Lumi + Sample: Sports Watch Flavor: Blue Project Modified: May 9, 2016	

**Link Visibility of Available filters and Columns**

In the **Result layout options** page, **Link visibility of Available filters and columns** option is available. When this option is enabled, and both the design panel item and the column are set up as being **Available** for a certain field, making one of them visible will make the other one visible as well. Hiding the field in design panel or column will cause both of them to be hidden. When a column is configured as visible or hidden instead of available, showing or hiding a filter in the design panel from the search results page will not affect the columns shown.



**Note:**

In List view, a + icon appears on the right side of the table.

In Grid and Card view, a "More..." link is shown to add or remove information.

### Set Attribute Value on a Search Result

The administrator can set the attribute columns to be editable when you run a search. By this, the user can then select a number of projects or documents (depending on the type of search).

The administrator needs to determine what columns can be edited. This is done in the Search definition panel.

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

Search for:

		Search Results Options				
		View(List)	Column Order	Editable	Sort	Order
<input type="checkbox"/> Use Advanced Search Characters	<input type="checkbox"/> Search Panel Design					
<input type="checkbox"/> Enable SmartNames						
Document Name	<input type="text" value="get set"/>	<input checked="" type="checkbox"/>	<input type="text" value="1"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="1"/>
Version Author	<input type="text" value=""/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Author's Location	<input type="text" value=""/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Description	<input type="text" value=""/>	<input checked="" type="checkbox"/>	<input type="text" value="2"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Modified	<input type="text" value=""/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Attributes...						
eskoBrand	<input type="text" value=""/>	<input checked="" type="checkbox"/>	<input type="text" value="4"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Product	<input type="text" value=""/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Approval Status	<input type="text" value=""/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Revision	<input type="text" value="Latest Revision"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Revision Letter:	<input type="text" value=""/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Characteristics...						
Project Name	<input type="text" value=""/>	<input checked="" type="checkbox"/>	<input type="text" value="3"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Show Additional Project Search Criteria						

In the above example, the administrator has selected **Trademark** and **Brand** attributes to be editable. When you save and run the search, the attribute columns which are set editable will appear with a pencil icon.

Q View and Annotate		Compare in Viewer	Download	Add to Cart	Set Attribute (eskoBrand)	Set Attribute (Product)
Name ↑	Description	Project		eskoBrand	Product	
CHILI-DA-DC GET SET demo for Drupa 2016 TOTA.mov		GET SET MULTIVITS variants				
GET SET - BOTTLE_ORANGE.ai		Alpro Demo				
GET SET - FRIDGE PACK.ai		Alpro Demo				
GET SET - FRIDGE PACK_WOTA.ai		WOTA_Upgrade_Movies_ATC_16				
GET SET - FRIDGE PACK_WOTA_Norm.pdf		WOTA_Upgrade_Movies_ATC_16				
GET SET - FRIDGE PACK_WOTA_std.pdf		WOTA_Upgrade_Movies_ATC_16				
Get Set.xml		CHST Demo				
GET SET_BOTTLE_2LABELS.A3D	Collection of ArtiosCAD assets that will be u (...)	drupa 2016 ArtiosCAD assets				
GET SET_BOTTLE_2LABELS.dae		drupa 2016 ArtiosCAD assets				
GET SET_BOTTLE_BLUE Briefing.docx		Briefing_ccc (01)				Energy Drink
GET SET_BOTTLE_BLUE Briefing.docx		Drupa16_BO Library				Energy Drink
GET SET_BOTTLE_BLUE Briefing.docx		Briefing_German (01)				Energy Drink
GET SET_BOTTLE_BLUE Briefing.docx		Briefing_MGEskoWorld (01)				Energy Drink
GET SET_BOTTLE_BLUE Briefing.docx		Briefing_Test PCM 27 june (01)				Energy Drink
GET SET_BOTTLE_BLUE Briefing.docx		Briefing_French (01)				Energy Drink
GET SET_BOTTLE_BLUE Briefing.docx		Briefing_KDCR test (01)				Energy Drink

Select a number of projects or documents and click on the Edit button. A dialog box appears asking for a value. These values adapts to the type of the attribute. When the value is provided and **Start** is clicked, you will see feedback about the progress and success of the operation.

**Set Attribute** ✕

Set eskoBrand to

Advanced

**Start**

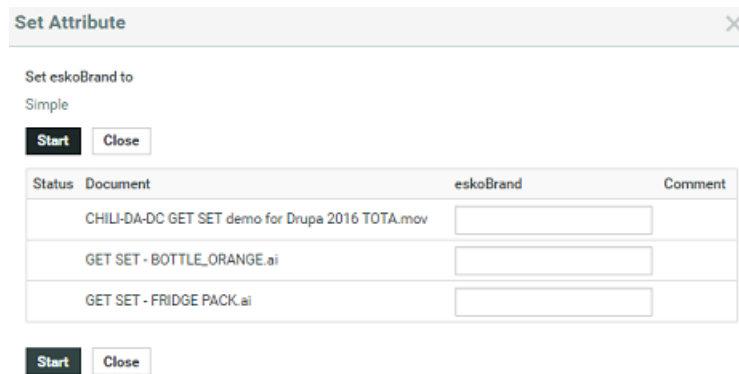
Status	Document	Comment
	CHILI-DA-DC GET SET demo for Drupa 2016 TOTA.mov	
	GET SET - BOTTLE_ORANGE.ai	
	GET SET - FRIDGE PACK.ai	

**Start**



**Note:** When the attribute could not be set on a project or document, the feedback shows a failure icon and gives the reason (No permission to set attribute, project is non-active, etc).

By clicking on **Advanced**, the dialog changes to accept different values for each project or document.



**Note:** Here, failure happens per item. So when selecting 20 items and the first fails, the rest is still attempted.

### Sorting Search Results

You can sort the **search results** in the **List / Grid** view based on sort-enabled search columns.

#### In the List Layout:

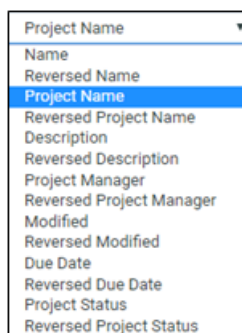
You can click on the primary sort field header  $\uparrow$  /  $\downarrow$  to switch between ascending and descending. All sortable fields will have the sort icon next to their header text.

To change the primary sort field, click on the sort icon next to it.

- Up arrow  $\uparrow$  in the column header indicates that the results are sorted on this field in ascending order. To sort the results in the reverse order, click  $\downarrow$ .
- Down arrow  $\downarrow$  indicates that results are sorted on this field in descending order. To reverse the order, click  $\uparrow$ .

#### In the Grid Layout:

If the search results are in the **grid layout**, you will see a drop down with sortable fields instead of the sort icons.



For example, sorting by **Name / Reversed Name** will make the name field in the ascending or descending order.



**Note:**

The configured *sort fields* will be applicable in both the **grid** and **list** layouts.

You can navigate to the page number you want by typing the page number in the footer. If there is only one page to show the results, then there is no footer shown.

## Task and Approval Search

In the **Tasks and Approvals** search you can

- Configure a search for **Tasks and / or Approvals** by choosing whether you want to search **All Approvals** or **All Manual Tasks** or **All Workflow Tasks** from the **Type** drop down. You can also choose any of the manual tasks or workflow tasks from the drop down or a combination of all the above.
- search for **Task Description** or **Task Type Description** in their respective fields. There is also an option to search on the **Status** of the Approvals or Tasks or a combination using multi-select.
- search for **Task Created** or **Task Estimated** or **Task Created By** or Approvals by **Approval Master** or **Stage Approval Status** or **Final Approval Status**.
- Search on any **Specification**. Select any of the Specification from the drop-down to refine your search.
- Filter the Specifications based on a Task Type. To filter, select a **Task Type** and enable **Filter task specifications by selected Task Type** option.
- search tasks based on the document uploaded within the tasks or search for the document to approve for approvals.
-

Search for Tasks and Approvals

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

		Search Results Options			
		View	Column Order	Sort	Order
<input type="checkbox"/> Use Advanced Search Characters	<input type="checkbox"/> Search Panel Design				
Name	<input type="text"/>	<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/>	1 ▲
Task Description	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Type	<input type="text" value="All Approvals X"/> <input type="text" value="*Assign all roles to Project Manager Soft Points v3.1 X"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Task Type Description	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Status	<input type="text" value="All Not Started X"/>	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
Task Created	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Started	<input type="text"/>	<input checked="" type="checkbox"/>	3	<input type="checkbox"/>	
Modified	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Due	<input type="text"/>	<input checked="" type="checkbox"/>	4	<input type="checkbox"/>	
Completed	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Task Estimated	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Task Created by	<input type="text"/>	<input checked="" type="checkbox"/>	7	<input type="checkbox"/>	
Completed by	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Duration	= <input type="text"/> +/- <input type="text"/> days	<input type="checkbox"/>		<input type="checkbox"/>	
Time Left	= <input type="text"/> +/- <input type="text"/> days	<input type="checkbox"/>		<input type="checkbox"/>	
Assigned to	<input type="text"/>	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	
Assignee's Location	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Approval Master	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Keywords	<input type="text"/>				
Specifications...					
Document(s)	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Parents (Document Reference) of	Matches <input type="text"/>				
Stage Name	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Stage Approval Status	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Final Approval Status	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Comment/Condition	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Reason(s) for Rejection	Default <input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Project Name	<input type="text"/>	<input checked="" type="checkbox"/>	6	<input type="checkbox"/>	

**How to find the duration taken and time left for Tasks and Approvals**

You can search to find the duration taken for Tasks (both Manual and Workflow) and also for Approvals. You can choose/ filter the search with the following fields

- **Started:** Start date of the Task or Approval
- **Due:** Due date of the Task or Approval

- **Completed:** date the task or approval was completed
- **Duration:** the time (duration) between the start date and the completed date. When the task is still ongoing, it is the time between the start date and the current time.
- **Time Left:** the time between the due and the completed. When the task or approval is yet to be completed, this is the time between the due date and the completion date.

When the time left is a positive number, then the due date is not reached yet. If the search yields time left as a negative number, then the task or the approval is overdue.



**Note:**

1. **Both Duration** and the **Time Left** do not consider weekends (Saturday and Sunday). You can also switch the weekend days to Friday and Saturday.
2. You can configure to get either the time in days or in hours.

### Reporting on Approvals

The main use case for approval search is reporting. In the search, you can find all the pending, and also all completed approvals. Approvals can be searched for each Approver in an approval stage.

For example, if a user and a group have to approve then two rows are displayed, each with details about who (of the group) completed the approval, and whether it was rejected or approved, and the duration. This is very useful information for reporting purposes.

## 3.7.3. Projects Calendar View

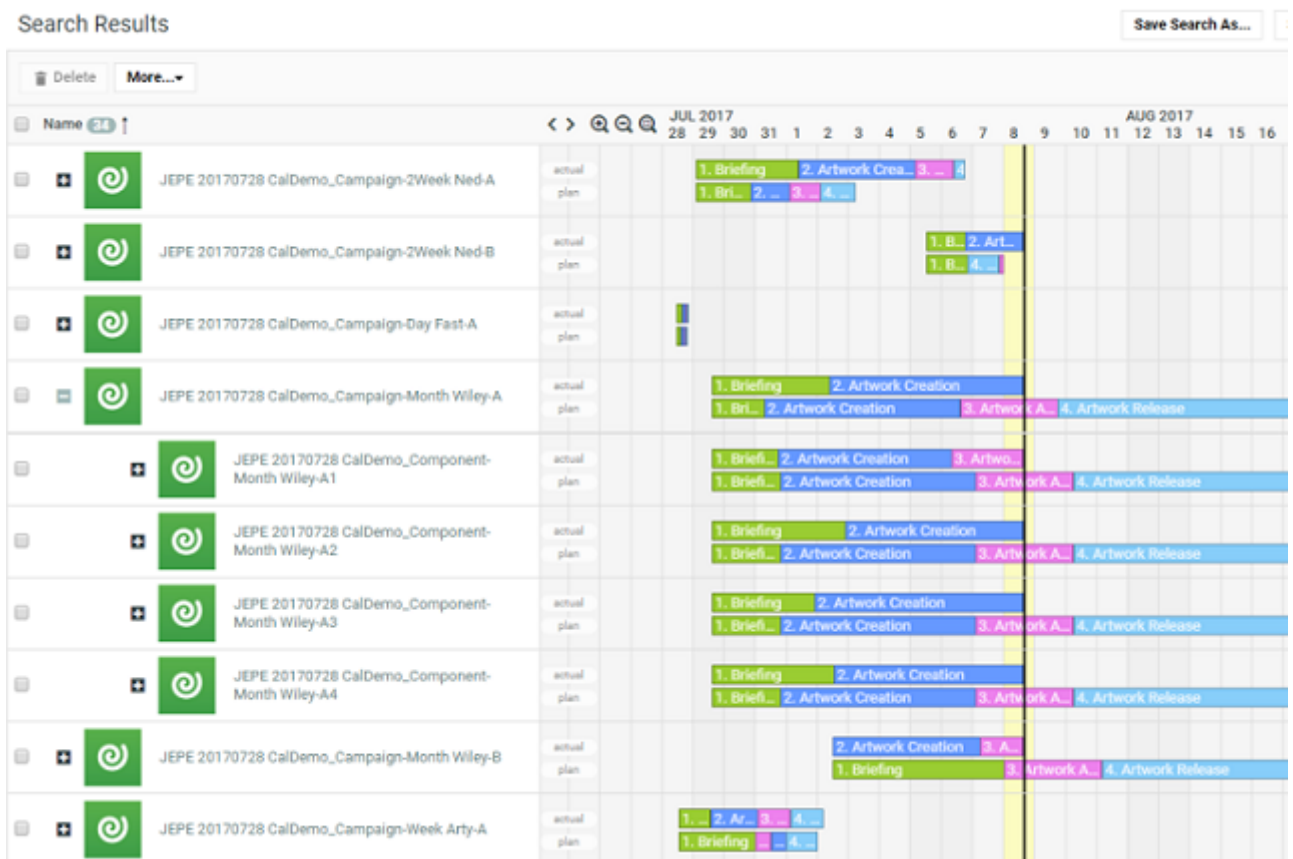
### What is Project Calendar View?

The Calendar View is another feature of project search. Status changes in the project history are displayed as project stages in a calendar. The picture below shows an example.

This creates a quick dashboard overview of your projects and helps you to prioritise which projects need your attention.

#### Why should you use Project Calendar view

- To show the Actual Vs Planned status of the project
- View the Project status of the child projects as a drill down
- Due dates are set up as attributes which you can configure at the Project page



To view the project feedback, project status history option must be enabled in **Admin > Preferences > Notifications > Include in Project History**. Enable **Project Status change**. Click **Save**.



**Note:**

1. Calendar View is enabled for Projects in List Mode only
2. To be able to use some of the calendar view functionality, you need the **Lifecycle management license**.

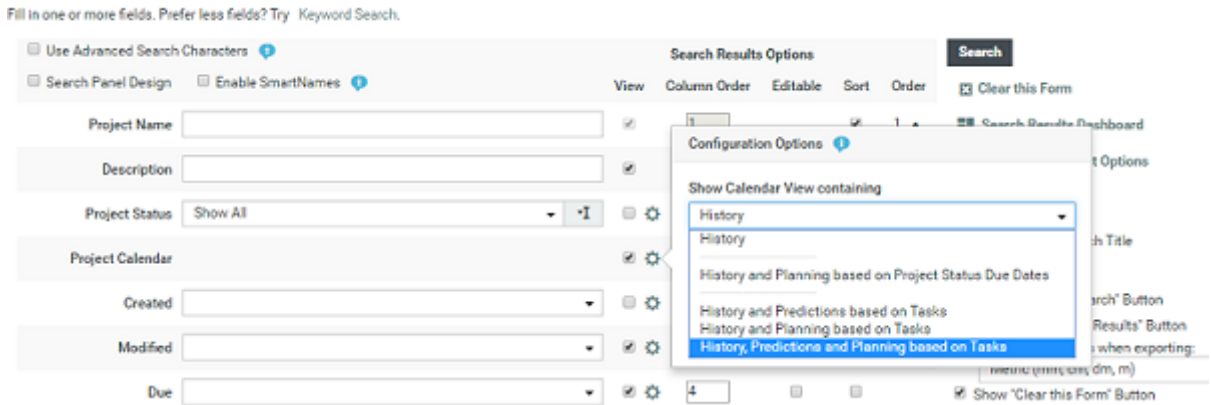
You can view the status of the projects along with the labels in the search results. This view also shows the planned vs actual status of the project status.

**How Can you Set Up a Search with the Calendar View?**

1. Go to **Search > Projects**.
2. Select the **View** check box **Project Calendar** to view in the Search results page.
3. Click on the gear icon to open the Configuration options for the Project Calendar. You can configure the **Project Calendar** options to display your project status in a dynamic way. **Configuration options** allow you to choose multiple options, which can provide information on the current status of your projects and predict the future state. You can set the status based on the task completions or on the date of the project statuses. Read more on [Set up a Search with a Project Calendar](#) on page 215.

4. Specify the width (in pixels) for the calendar column (minimum is 200px but you get better results with 500px). Decide whether to also show the project status icon (which will then appear at the left of the calendar).
5. Click **Search** to view the **Project Calendar**.

Note that the calendar is displayed in the column defined for the project status. By changing the column order for this column, you will move the calendar in the search result. In most cases the best result is obtained, if the calendar is the last column and if there are not too many preceding columns.



### Set up a Search with a Project Calendar

To set up a Saved search with Project Calendar option, in the search page.

1. Click on the gear icon in the **Project Calendar** row to open **Configuration Options**
2. Choose the options from **Show Calendar View Containing** drop down options.

Options in the drop down are

- **History:** shows past statuses (history)
- **History and Planning based on Project Status Due Dates:** shows past statuses, planning based on the milestones that are linked to the project status and the originally planned timeline (in gray)
- **History and Predictions based on Tasks** shows past statuses, predictions based on the tasks
- **History and Planning based on Tasks** shows past statuses, due dates based on the tasks or the lead time depending on which one is the latest.
- **History, Predictions and Planning based on Tasks** shows past statuses, due dates based on the tasks or lead time and the originally planned time line (in gray).



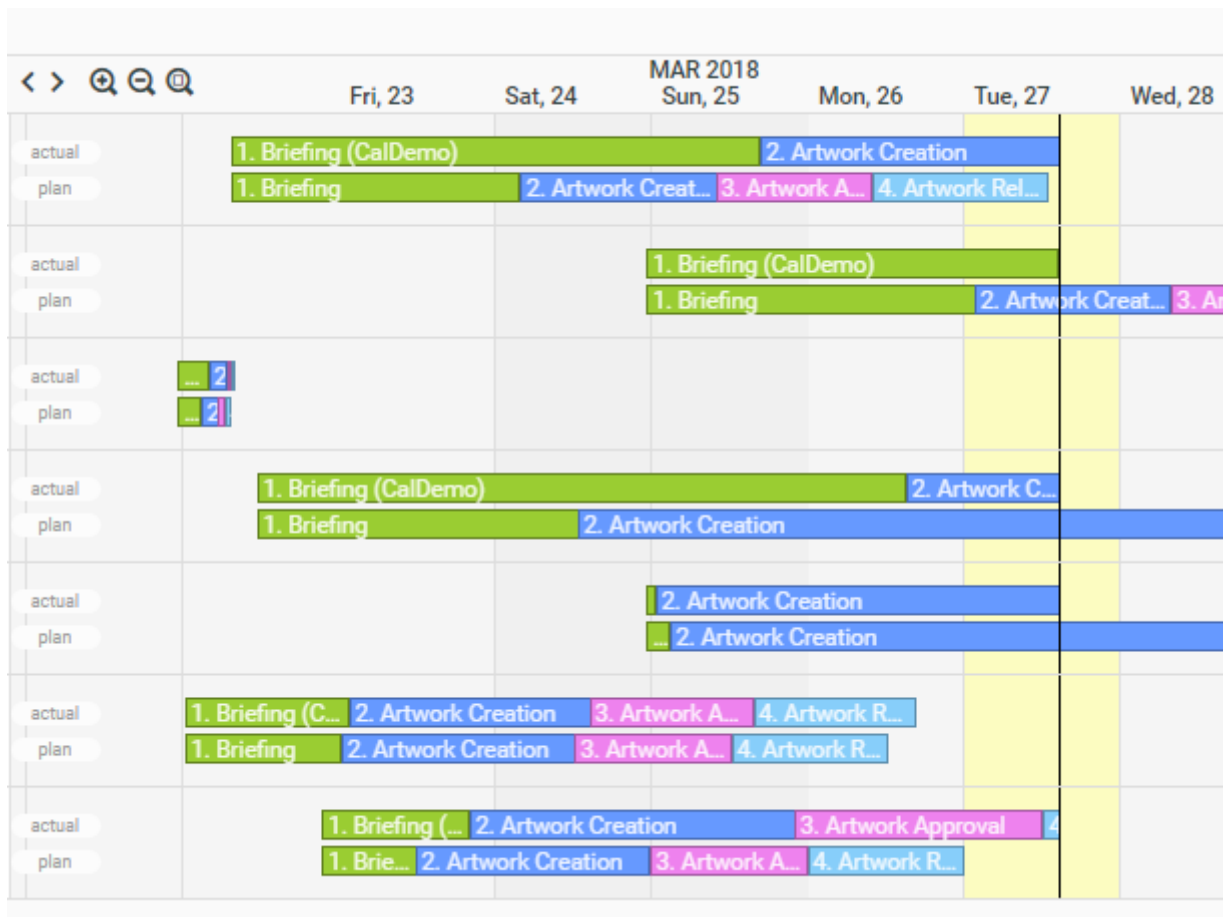
**Note:** The last three options are available with the task management license only.

3. You can select the **Apply Forward Planning to calculate Predictions** option, when you choose the **History Predictions and Planning based on Tasks** or **History Predictions based on Tasks**. In such a case, forward planning is done based on the start date and the next due dates are calculated based on lead times.

When this option is not chosen, then backward planning is done where the due date is considered and the other due dates are calculated backwards based on lead times given.

4. Select **Show Project Due Date** to display the project due date in the search results.
5. Specify the **Calendar Column Width** in the box for the calendar column (minimum is 200px but you get better results with 500px).
6. **Labels Shown on Project Status Bars** gives options to display the labels in the Project Calendar view. You can choose the labels to display **Label shown on Project Status Bars** from the drop down list as one of the below:
  - Number of Project Status
  - Number in order of Appearance
  - No label or
  - Status Name configured
7. Select **Search** to view the search results.

In the **Search Results** page, Project Statuses of the project is shown over timelines.



The timeline can contain 2 bars:

- **Actual:** Displays the actual state of the project now.

For values in the past this bar will always be there and will show the Project Status History.

For values in the future it can also show predictions based on tasks. Predictions based on tasks show the due dates of the tasks or the lead time depending on which one is the latest or which one is first when using forward planning. When calculating the date with lead times, week days are taken into account.

- **Plan:** Shows the planned project status of this project.

Planning based on tasks shows the due dates of tasks that have an effect on the project status.

Planning based on milestones shows the values of date attributes in the project that are linked to the project statuses.

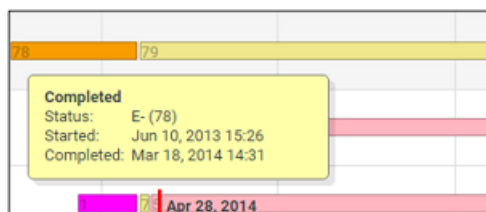
### Using the Basic Calendar View

In the basic **Show Calendar View** only 1 line is displayed and it stops at the vertical 'today' line.

- The vertical black line is always on 'today'. So the current status of the project can be seen from the color where the black line cuts through the status line.



- You can zoom the calendar view with the + and - buttons or with the scroll wheel. This changes the time scale from months to weeks to days or reversely.
- You can pan the calendar view by using the arrows (just before the + and - icons) or by dragging also.
- Clicking the magnifier icon resets the view.
- The colors are as defined in the project status setup. (Admin/Project Management/Project Statuses).
- The number displayed corresponds to the project status index (same statuses have the same number in all projects).
- The small red vertical line indicates the project due date (if set).
- The color changes on the date where the project actually changed status.
- You can hover over any of the status blocks to get more information (name of the status, start and end date, status type, calculated delay).



### Using the Calendar View with Predictions



**Note:** Calendar view with prediction is only available if the user has the task management license.

In order to use this feature, your projects must have Tasks configured to set Project statuses.

- The first part of the project line (till today) works as in the basic view.

- The second part (after today) shows a prediction of the project based on the project tasks (rescheduled based on their current status). The estimated due date is based on the task predecessors, task due date and lead time.
- A lighter version of the project status color is used to draw this part of the bar. For each project status, it will look for a task completing this project status. Then it will determine from predecessor logic which tasks need to be completed to complete this task, and how much time this will take in total. For not started statuses, this will be the length of the block. For started statuses, it will first subtract what is already consumed and only add the remainder (potentially nothing) to the block. This way the time line is extended.

### Using the Calendar View with Planning

When using this view, you will see 2 lines for each project, a colored line and a grey line.

- The colored line behaves identical to the 'calendar view with predictions'.
- This grey line shows the planned project time line based on the project tasks. For each project status, it will look for a task which completes this project status and for this task, it will take the due date. This will determine the end date for the grey block of this project status (the begin date is simply the end date of the previous status).

Notes:

- Subtasks are left out of the calculation.
- In case multiple tasks are set the same project status, one (merged) stage is shown only. This situation is best avoided.
- In case no project status history is available, nothing is shown.
- 'Completed' Project Statuses are not shown in the calendar view. When a project has been put to completed, and was started again later, there will be a gap in the history bar.

### Project Status History Settings

In order to be able to show the project feedback, the project status history option must be turned on.

When loading the page, the following tests are made:

- If the global settings for the 'Project status change' include in project history is turned off, a message box with a clear message is shown.
- If project specific settings for the 'Project status change' include in project history is turned off for some projects (and the global settings is on), a warning icon with a clear tooltip message is shown next to the project name.

## 3.7.4. Search on Project Duration

### Duration Reporting for a project

You can search for projects based on the Start date, Due date, Completed date, Duration and Time Left of the project. You can save the searches and add it to the dashboard to have an instant view of the progress of all the current projects.



Field Name	What it means
Started	The start date of a project is the first time the project was set in an active status.
Completed	The last date the project was set in a completed status
Due	The due date is shown in the project details.
Duration	The time between the start date and the completed date. Only active statuses are considered to calculate the duration of the project. When the project is not completed, the duration is the time between the start date and the current date/time.
Time Left	This is the time between the actual completion date and the Due Date. When there is no due date, the time left is not shown as it is not relevant. When the project is in progress, the Time Left is the time between the due date and the current date. When the current date/time is still before the due date, the project is not overdue. In this case, the time left is a positive number, indicating that there is still time remaining before we reach the due date. When the current time is after the due date, the project is overdue. In this case, the time left is a negative number, indicating how much the project is overdue.

### How to find Project Status Duration

You can also find the Duration metrics on the time spent in a given stage of the project. Projects statuses can reoccur multiple times and you can compute the duration of time in each of the given status.

Project Status Started

Prepress Creation Started

Prepress Approval Started

Select Project Statuses that you want to search on

You can filter each selected Project Statuses based on the duration criteria

Project Status Duration

Prepress Creation Duration     days

Prepress Approval Duration     days

Field Name	What it means
Project Status Started	The start date of a project Status is the first time the project was set in the selected status.

Field Name	What it means
<b>Project Status Completed</b>	The completed date of a project Status is the last time the project was in the chosen status before it was changed to a new status.
<b>Project Status Duration</b>	The project status duration is the time that the project spent in the selected status. It is the sum total of all the time the project was in a particular status. When the project went into the selected status multiple times, the duration is the accumulated time the project spent in the selected status.  In this field, you can filter on the duration in days of the selected status.
<b>Project Status Time left</b>	It is the time the project was in the Project Status. When there is no due date, the time left is not shown as it is not relevant.  When the project is still ongoing, the Time Left is the time between the current date with the <b>Project Status Due</b> . When the current time is before the <b>Project Status Due</b> , the project is not overdue yet.  When the current date is after the <b>Project Status Due</b> , the project is overdue. In this case, the time left is a negative number, indicating how many days the project status is overdue.

For example: Let us assume that

Day 1: Jan 01 00:00 till Jan 02 00:00 => Project was in StatusA.

Day 2: Jan 02 00:00 till Jan 03 00:00 => Project was in StatusB.

Day 3: Jan 03 00:00 till Jan 04 00:00 => Project was in StatusA.

**Project Status Started** of StatusA is Jan 01 00:00 (first time project was in StatusA)

**Project Status Completed** of StatusA is Jan 04 00:00 (last time project was in StatusA)

**Duration of StatusA is 2 days and Status B is 1 day**

### 3.7.5. Asset Browser

Asset browser is a user-friendly feature to search and find assets in a large collection of WebCenter assets. You can customize the Asset Browser into the WebCenter Menu for easy access. In addition, you can create more than one Asset Browsers in the same WebCenter with different names for different sets of users for easy browsing.

For example, a project manager can benefit from an Asset Browser which will collect Project Templates and a printer will benefit from one that points to finished Projects which are ready to be printed.

You can create a menu item which can be named "Assets" or "Repository" or simply "Search" or "Browse". This menu will be linked to a highly configured **Global Saved Search** which will function as your **Asset Browser**. One Asset Browser can be linked to one **Attribute Category** as in saved searches. However, this **Attribute Category** can have multiple **Cascading Dropdowns** resulting in multiple independent trees in the same asset browser. Read more in about Saving Searches as Asset Browser in [Setting Up an Asset Browser](#) on page 222.

A customized graphical Asset Browser will help you to visually browse through projects and graphical assets previously stored in WebCenter. To achieve this, you need to classify assets using custom

attributes with graphical icons(Attribute Value Images). Read more about graphical labeling of attributes in [Setting Up a Graphical Asset Browser](#) on page 227

You can set up a graphical browser or a tree browser and both. Technically, the Asset Browser has all the features of Saved searches which is enhanced with Tree and Graphical browsing through Cascading Attributes. Read more about Cascading Attributes in [Cascading Dropdowns](#) on page 366

## What You Need to Know about Asset Browsing

### Concepts Used in this Section

Concept	Definition
Asset	Any digital file including pictures, graphics (PDF, Illustrator, ...) and Office documents stored in the WebCenter. For example a piece of packaging design that is uploaded to WebCenter.
Asset Browser	A user-friendly way to find assets in a large repository. Read more in <a href="#">Asset Browser</a> on page 220
Repository	A part of WebCenter which is considered to contain assets. WebCenter as a whole is a repository but by filtering you can pin-point to the specific section of the repository. You can achieve this by filtering on: <ul style="list-style-type: none"> <li>• certain document types</li> <li>• range of projects based on project characteristics or naming conventions</li> <li>• both documents and project range.</li> </ul>
Saved Search	Highly configurable <b>Saved Searches</b> from WebCenter 12 onwards. Read more in the following sections from the WebCenter User Guide. <a href="#">Advanced Searching</a> on page 192
Tree browser	This <b>tree</b> is built based on your <b>Cascading Attributes</b> which you can put in the left panel to browse through the assets.
Search Parameter Panel	A panel appearing at the top of the search results of Asset Browser which you can use to further refine your search.

### Organizing Assets in WebCenter

You can use the Asset Browser to its full extent by organizing Assets in WebCenter. You can upload the assets in bulk during the early stage of the WebCenter deployment which will grow with new designs and documents. For conducting effective search via an asset browser, you need to specify **Attributes** (metadata) for your assets while uploading them to WebCenter. You need to:

- define **Attributes**.
- assign those attributes to **Attribute Categories**

- assign the right attributes from this **Attribute Category** to the assets(documents) while uploading.

From WebCenter 12 onwards, you can assign these Attribute categories automatically to uploaded documents. This is done by:

- using default Attribute Categories using **Document Types**.
- using document templates with **Attribute categories**

Read more about this in [Autonaming Projects / Documents](#) on page 484

When you store assets in specific projects you should ideally:

- have at least one project template created for projects specifically meant to store assets. This helps in setting up **Security, Roles, Autonames** and default **Attribute Categories** which will aid in better organization.
- not store too many documents in one WebCenter Project. Since Projects only have one level of folders, project browsing gets slow when there are too many documents or too many folders in the project. Asset Browsing will be easier when they are stored with pre-determined metadata in a set of projects.



**Note:** You do not have to specifically create “asset projects”. It is possible to design an Asset Browser for entire WebCenter site.

## Creating Asset Browsers

### Setting Up an Asset Browser

1. Save a Search using your own search settings.

**Asset Browser** is essentially a highly configured Saved Document Search. Therefore, the features of Saved Searches are available in the Asset Browser. You can:

- Set the **Saved search** to be **Global** or **Personal** as an administrator.



**Note:** You should use the **Global** setting for Asset Browsers. **Personal** searches does not serve the Asset Browsing function since they can only be used by admins who create them.

- Filter on almost any property or attribute of documents in advanced ways.
- Define a drill-down (parameter) panel to appear at the top of the search results.
- Assign the saved search to a menu item.
- Assign which document properties or attributes will be displayed in the search results and in what sequence.
- Set the sorting order of the results.
- Set a preference on how many search results will appear per search result page.
- Define what operations can be done in the saved search results.
- Define layout settings of the search results (grid versus list, number of results, thumbnails or no thumbnails).

Read more in the following sections from the WebCenter User Guide.

[Advanced Searching](#) on page 192

[To Save a Search](#) on page 582

[To Search Content](#)

2. Add Cascading Attributes to the Saved Search. You need to follow the steps below.
  - a) Log in as an administrator
  - b) Create Cascading Attributes. Read more in [Lists](#) on page 366. Create an attribute category with these Cascading attributes with which you want to customize browsing and displaying.
  - c) Go to **Search > Saved Searches**. Choose and edit the **Saved Search** from the previous step. If you did not save the Search, go to **Search > Documents** and restore the previous settings (within the same session) or start over.
  - d) Click on the **Attributes** link. Add the Attributes from the Attribute Category that you want to assign to this search.



**Note:** Only the Cascading attributes from the **Attribute Category** are available for tree browsing in Asset Browser.



**Notice:** Avoid Using the same **Attribute** in different **lists** used in the same Asset Browser as it leads to unpredictable results.

- e) Enable **Search Panel Design**. In the **Search Panel Design**, you should set these attributes to be **Visible/Available**



**Tip:** The tree view in the Asset Browser requires the **attributes** to be set to **Visible** or **Available** in the **Search Panel Design**.

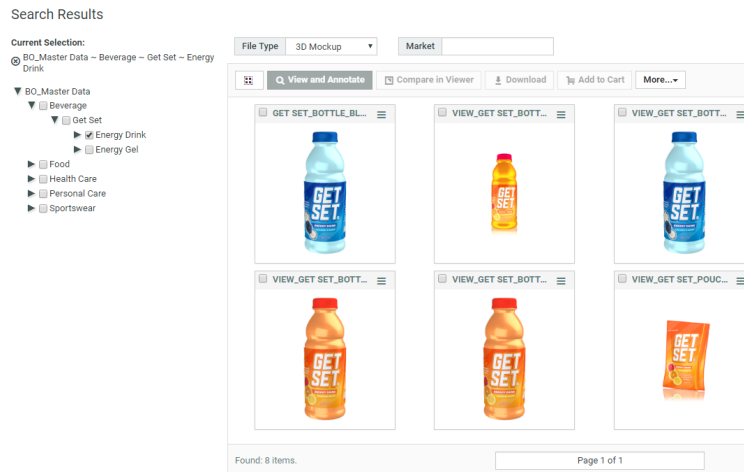
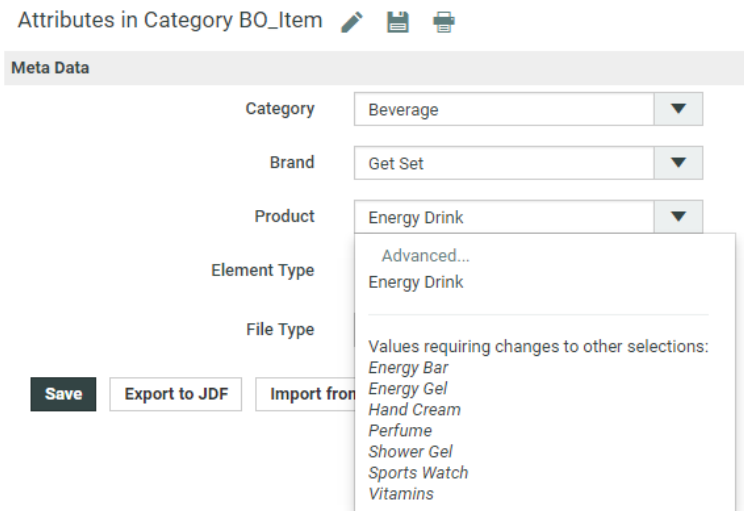
You will have a top panel with Visible/Available Attributes to refine the search. Selecting a value for one Attribute will limit the values for other Attributes.



**Note:** If the Attributes appear but not as dropdowns, check whether the **Attribute Category** is correctly configured. Assign it to a document to test whether the cascading effect works.

3. Create a Browsing Tree using Cascading Dropdowns.

A cascading attribute can be shown as a tree or as a set of mutually dependant attribute dropdowns where choice of one from a dropdown limits the choice available in other dropdowns.



You can choose from any of these two options or both views together. Read below some remarks about these options.

- The tree view takes more space and loads slower
  - The tree view allows multiple selection
  - The tree view can be restricted using the **depth** parameter
  
  - Dropdowns in the top panel can also be restricted
  - The tree view can be shown in a graphic way (using thumbnails). This takes even more space on the screen but creates a beautiful user experience provided you have good image representations.
- a) Go to **Search > Saved Searches**. Choose and edit the **Saved Search** from Step 1. If you did not save the Search, go to **Search > Documents** and restore the previous settings (within the same session) or start with a new Search.
  - b) Click on **Show Result Layout Options**. This opens a panel with additional options.

Document operations:

- View
- Open in ArtiosCAD
- Download
- Define Attributes
- Approval Info
- Mail Link To
- Upload New Version
- More actions

Other display options:

- Show "Save this Search" Button
- Show "Save Search Results" Button
- Show "Hide Thumbnail" Button
- Show "Show as Grid/List/Cards" Button
- Show Labels in Grid/Card Layout
- Set Labels in Grid Layout in bold

Initial Results Display:

Advanced Functions:

- Allow Changing Attribute Category
- Custom Actions
- Show Search Button ?
- Show Cart ?
- Show Project Creation Link ?
- No Template Specified
- Fixed Template
- 
- Template from Characteristics Path

? Lists to be shown in left tree panel:

	Type	Name	Depth	Height
✕	list	<input type="text" value="Demo_Sheet Brand"/>	<input type="text"/>	<input type="text"/> px
✕	list	<input type="text" value="Demo_Sheet Packaging"/>	<input type="text"/>	<input type="text"/> px
✕	list	<input type="text" value="Demo_Sheet Product"/>	<input type="text"/>	<input type="text"/> px

Add List

Tree panel width:  px

Image Area Style:  ?

Allow Changing Image Area Style via Dropdown


c) Enter the list names that you have configured in the Listmanager project.



**Note:** You can add lists to the tree panel by clicking on **Add List** or remove them by clicking on the ✕ icon. Use the arrows in the second column to move the lists up or down.

d) Set the properties for each list. These properties are applicable when a left tree panel is selected.

<b>Depth</b>	<p>If you leave it empty, all the columns from lists.xml will be available.</p> <p>If you need four columns out of five columns from your lists.xml, enter 4</p>
--------------	--


<p><b>Height</b></p>	<p>You can set a maximum height for the tree here.</p> <p>If you leave it empty, the tree will take as much space as it requires.</p> <p>If the tree height is bigger than your entry in this setting, a scroll bar will appear.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> You can enter 1000 pixels or less for the best user experience. However, it can vary depending on the size of the user monitor.</p> </div>
----------------------	---

e) Set the browsing style for Tree browsing and Image browsing by modifying the following fields.

<p><b>Tree panel width</b></p>	<p>Default Tree panel width is 300 pixels which you can increase or decrease depending on your requirements.</p>
<p><b>Image Area Style</b></p>	<p>For a browsing tree at the left hand side, choose <b>Left panel only (no images)</b></p> <p>If you want to browse through an image panel at the top, choose <b>Top panel only (no tree to the left)</b></p> <p>If you want both tree browsing and image browsing, choose <b>Left panel and image panel</b></p>
<p><b>Allow Changing Image Area Style via Dropdown</b></p>	<p>If you want the user to change the browsing style, enable this option.</p>

4. Save/Run this search.

If you have save it as a **global saved search**, all WebCenter users can run this asset browser from their saved search lists or from the menu if you have customized a menu item for this Asset Browser.



**Note:**

You can restrict access to the Asset Browser by:

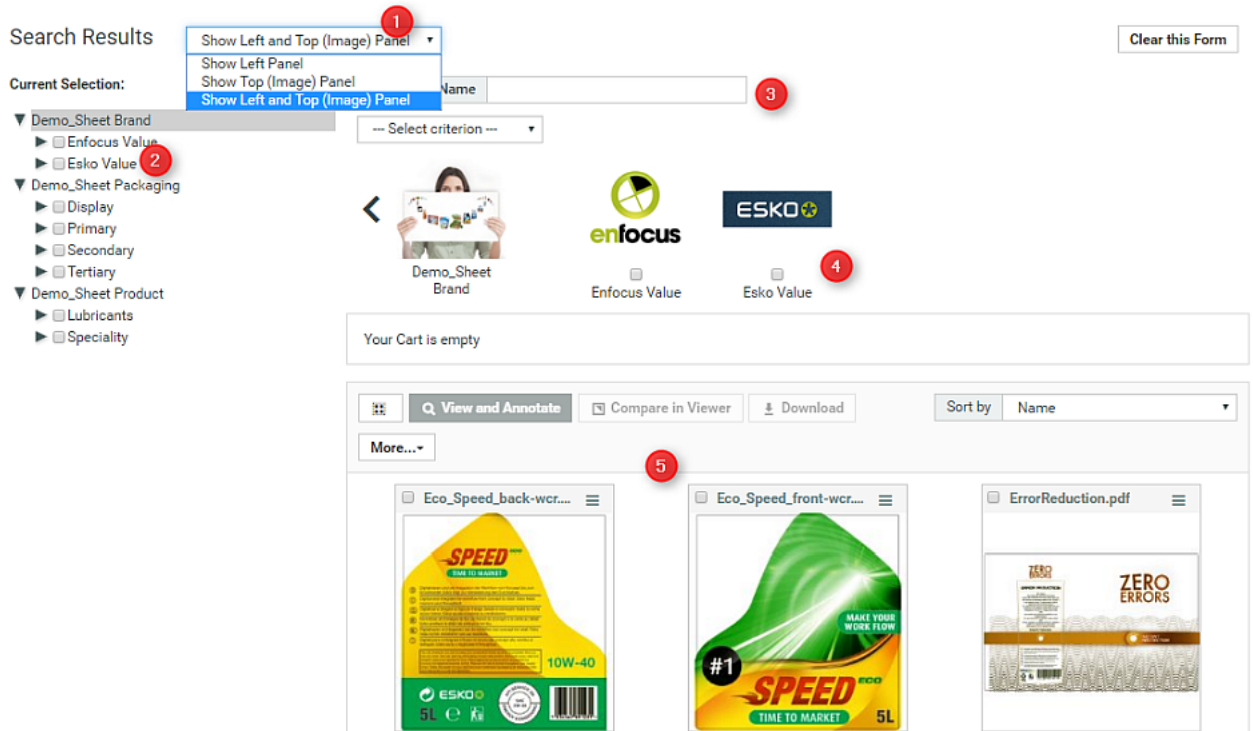
- deleting **Saved Searches** item from the **Search** menu for the restricted Users.
- deleting the menu item assigned for the Asset Browser.

When you run the search, you will get a tree in the search results. This tree will have branches according to the columns in the lists (Cascading Attributes). You can see in the screenshot below:

- 1. The user can choose from three options. This is only available when you have enabled **Allow Changing Image Area Style via Dropdown**. See the explanation above.
  - **Show left Panel**
  - **Show Image Panel**



- **Show left and image(top) panel**
- 2. Tree Panel. This shows the information from the **lists**
- 3. Search Parameter Panel where you can refine your search using Attributes or document properties.
- 4. Image Panel
- 5. Search Results



### Setting Up a Graphical Asset Browser

As already mentioned, the tree panel to the left can be replaced with a panel of images at the top. Alternatively, you can choose to have both at the same time which will give you synchronized results.

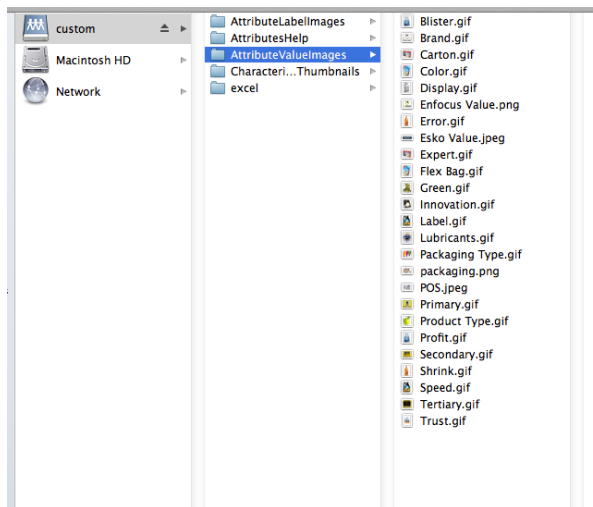
These images are a representation of the attributes and you can also configure an image label for an attribute.

1. Create images for each value of **Attributes** and **lists**.



**Note:**

- For the best user experience, use .jpg images. It does recognize .gif, .jpeg and .png.
- The name of the **Attribute** (or **lists**) and the image should be entirely the same including the case of the letters. Extensions should be specified in lower case.
- The images appear as 100x100 pixels. If you add images exactly of this size, best performance is assured. If the sizes vary, it will be adjusted to fit into 100x100 appearance. Therefore, the image appearance will vary depending on your browser's capacity to scale images.



2. Add these images to WebCenter\WebServer\tomcat\webapps\WebCenter\_Inst\custom\AttributeValueImages.

If more than one WebCenter instance is used, you have to copy this setup to each instance.

AssetDemo Show Top (Image) Panel

Brand:  Document Name:  Sub Brand:

Packaging:  Packaging Sub Type:  Product Type:

Variant:

**Search**

**Current Selection:**

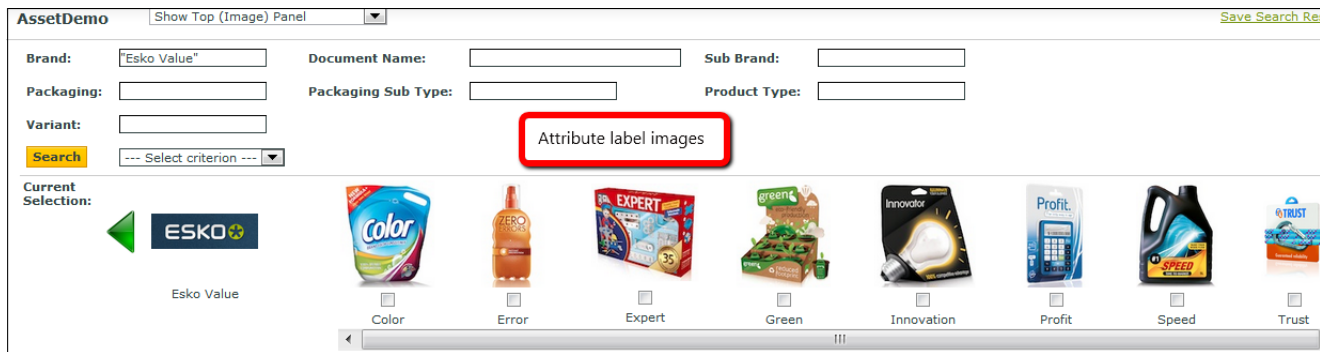
Brand

Packaging

Product

These images correspond to the lists (cascading dropdown lists).

Your cart is empty



**Note:**

Make sure that you have an image for each list used. In the above example screenshots above, this is Brand.jpg, Packaging.jpg and no image attached with Product.

Use a .jpg for the lists since list images will be frequently used. As mentioned earlier, WebCenter is optimized for .jpg. When some attribute value has no fitting image, the list image will be shown instead.

**Removing the Search Button from the Asset Browser**

If you keep the **Search** in the asset browser, for every search modification in the Asset Browser, you have to click it to refresh the results. You can remove this button from the Asset Browser to improve the user experience.

By removing the **Search** button, you can:

- save on screen space in the Asset Browser
- any change in the search criteria from the browsing tree or the search panel will update the results.

You can accomplish this by editing the Saved Search created for the Asset Browser:

1. Go to **Search > Saved Searches > Edit Search**
2. On the right hand side of the page, click on **Show Result Layout Options**
3. Disable the **Show Search Button** option.

Document operations:

- View
- Open in ArtiosCAD
- Download
- Define Attributes
- Approval Info
- Mail Link To
- Upload New Version
- More actions

Other display options:

- Show "Save this Search" Button
- Show "Save Search Results" Button
- Show "Hide Thumbnail" Button
- Show "Show as Grid/List/Cards" Button
- Show Labels in Grid/Card Layout
- Set Labels in Grid Layout in bold

Initial Results Display:

Advanced Functions:

- Allow Changing Attribute Category
- Custom Actions
- Show Search Button i
- Show Cart i
- Show Project Creation Link i
  - No Template Specified
  - Fixed Template
  - 
  - Template from Characteristics Path

i Lists to be shown in left tree panel:

Type	Name	Depth	Height
<input checked="" type="checkbox"/> list	<input type="text" value="Demo_Sheet Brand"/>	<input type="text"/>	<input type="text" value="px"/>
<input checked="" type="checkbox"/> list	<input type="text" value="Demo_Sheet Packaging"/>	<input type="text"/>	<input type="text" value="px"/>
<input checked="" type="checkbox"/> list	<input type="text" value="Demo_Sheet Product"/>	<input type="text"/>	<input type="text" value="px"/>

Add List

Tree panel width:  px

Image Area Style:  i

- Allow Changing Image Area Style via Dropdown

## Customizing the User Menu with the Asset Browser

### Assigning a Menu Item for the Asset Browser

You can create and assign a **Menu** Item for easy access to your Asset Browser. The procedure is similar to assigning a menu item for **Saved Searches**. Read [Add Custom Menu Items](#) on page 1098 from WebCenter Customization Guide for details

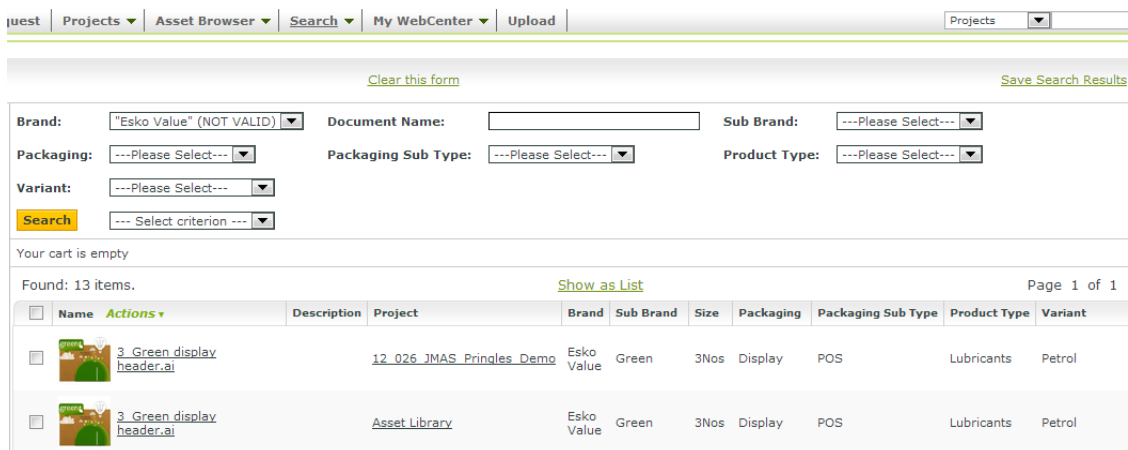
1. Go to **Admin > Preferences > Menus**. Download the XML file or create a new XML file and add the following code under the NON\_ADMIN.

```
<menuitem>
<name>AssetDemo</name>
```

```
<labeltag>Asset Browser</labeltag>
<url>dosavedsearch.jsp?searchName=AssetDemo</url>
</menuitem>
```

2. Assign the scope of this menu to the (set of) users or to a Company/Location. Read more in [Add Custom Menu Items](#) on page 1098
3. Save this XML and upload as a new menu.

This results in the following Menu Item named **Asset Browser**. The search results are directly available by clicking on this item. The name of the page is the same as the name of the **Saved Search**. In this example, the page appears as AssetDemo instead of "Search Results"



### Assigning Submenus to Dedicated Asset Browsers

You can customize your Asset Browser further by creating submenus for different asset browsers with a more dedicated and simplified user interface. This will help you to navigate easily between the asset browsers( saved searches. You do this by adding a submenu to the asset browser’s menu item which is explained in [Assigning a Menu Item for the Asset Browser](#) on page 230.

1. Set up dedicated Asset Browsers for your assets. These are **Saved Searches** called Brands and Packaging in this example.
2. Update the XML file with the similiar fragment as in the example below. You can see that there are submenus for the set of Asset Browsers created in the previous step.

```
<menuitem>
<name>Asset Browser</name>
<url>dosavedsearch.jsp?searchName=AssetDemo&actionMenu=Asset Browser</url>
<labeltag>Assets</labeltag>
<menuitem>
<name>Brands</name>
<labeltag>Brands</labeltag>
<url>dosavedsearch.jsp?searchName=Brands&actionMenu=Asset Browser</url>
</menuitem>
<menuitem>
<name>Packaging Types</name>
<labeltag>Packaging Types</labeltag>
<url>dosavedsearch.jsp?searchName=Packaging&actionMenu=Asset Browser</url>
</menuitem>
</menuitem>
```



**Note:**

- This will result in submenu which folds out and permanent links on the top left below the main menu bar. The second one is caused by `&actionMenu=Asset Browser`.
- Check the spelling as every character is important.
- This code addition is not necessary if you use one menu item for a single Asset Browser alone. Example in [Assigning a Menu Item for the Asset Browser](#) on page 230.

3. Upload this XML to a new menu or update a previous menu in **Admin > Preferences > Menus**
4. Assign this menu to a set of **Users** or a **User**. You can also assign a menu item to a **Company/Location**. This versatility helps you to restrict the access to specific **Groups** and **Users**.

Clicking on **Brands** under **Assets** will bring you to the saved search called Brands. You can save this with simpler settings or with a graphical asset browser according to your preference. It is possible to give different names to the **Saved Searches** and the submenu items.

## Advanced Options in Asset Browser

### Configuring the Cart in the Asset browser





You can configure the Cart in the Asset Browser which can assemble the assets selected from the Asset Browser. From the Cart, you can:

- start the viewer
- download the assets
- start a new project with these assets
- modify the assets.

You can do several rounds of searching and browsing to add documents one by one to the Cart and then proceed with the actions listed above. The Cart has to be configured by the administrator while determining the settings of the Asset Browser (the **Saved Search**).

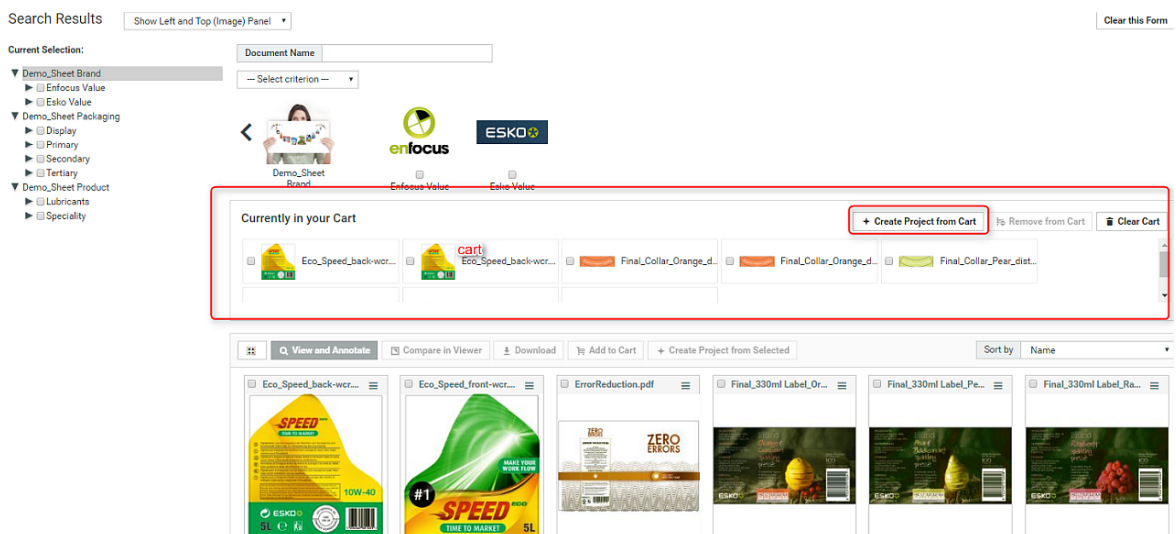
1. In the Search Settings, click on **Show Result Layout Options** which will open the **Advanced Functions**.
2. Enable **Show Cart**.

### Advanced Functions:

- Allow Changing Attribute Category
- Allow sending Download Mail for Multiple Documents
- Custom Actions
- Show Search Button 
- Show Cart 
- Show Project Creation Link 
- No Template Specified
- Fixed Template
- BO\_Packaging 
- Template from Characteristics Path

### 3. Save the search.

The next time you access the Asset Browser, the **Cart** will appear within a few seconds. You can now add your selections to the cart.



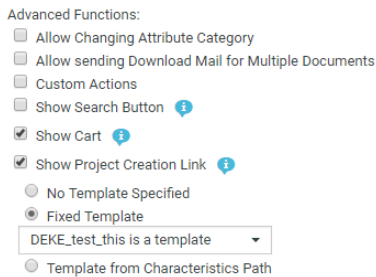
The screenshot shows the 'Search Results' page in the ESKO Asset Browser. On the left, there is a 'Current Selection' sidebar with a tree view of categories like 'Demo\_Sheet Brand', 'Demo\_Sheet Paclaging', and 'Demo\_Sheet Product'. The main area displays search results for 'Eco\_Speed' and 'Final\_Collar'. A 'Currently in your Cart' section is highlighted with a red border, showing a list of items with a 'Create Project from Cart' button. Below the cart, there are thumbnails of product labels and documents, including 'Eco\_Speed\_back-wcr...', 'Eco\_Speed\_front-wcr...', 'ErrorReduction.pdf', and 'Final\_330ml Label...'.

Read more about using the Cart in [Using the Cart from the Asset Browser](#) on page 587 .

### Configure Project Creation from the Asset Browser



Your Packaging Projects often involve modification of existing packaging or creation of new packaging with recurring elements. You can use a project template for these recurring elements. Asset Browser will help you to browse for these templates and existing packaging projects while setting up new Projects. You can either collect the relevant items to the Cart and start a new Project directly or start Project creation from the **action list** menu. Follow the steps below to configure this feature.

1. In the Search Settings, click on **Show Result Layout Options** which will open the **Advanced Functions**.
2. Enable **Show Project Creation Link**.



This will add a link to the search results **action buttons (Create project from selected)** and to the Cart **CartCreate project from cart**.

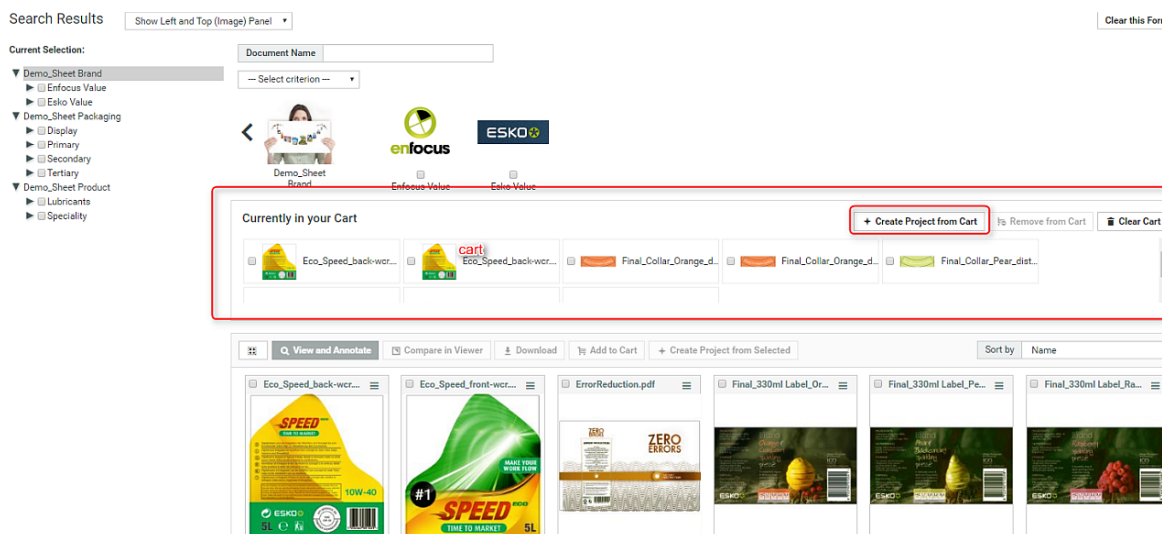
3. You can choose the template for the project creation from Asset Browser. For this, enable the **Fixed Template** option and select the template from the dropdown list.

Option	Result
<b>Fixed Template</b>	Select the template from the dropdown list.
<b>Template from Characteristics Path</b>	<p>You have to specify the path. For example, <code>projects\modificationTemplates</code>.</p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;">  <b>Note:</b> Follow the correct spelling and letter case.         </div> <div style="border: 1px solid gray; padding: 5px;">  <b>Note:</b> Projects can have multiple characteristics. The same template can appear in multiple asset browsers together with other sets of templates.         </div>
<b>No Template Specified</b>	This will result in the standard project creation user interface.

4. Save the search under the same name.

You can either use **Create Project from Selected** link or **Create Project from Cart** to create projects from your selected assets (either from the selection or from the Cart). This will lead to project creation user interface depending on the template choice made in the steps above. When creating the project, the selected assets will be copied to the new project.





## Tips and Tricks



### Tip:

In certain cases you might want to have your assets attached with different **Attribute Categories** to be shown in your Asset Browser. For instance, when you have graphical designs attached to one **Attribute Category** and photographs attached to another Attribute Category. If you want your Asset Browser to show these two types of assets, you can create a third **Attribute Category** combining these two **Attribute Categories**. You can create your Asset Browser attached with this Attribute Category. You can refine your Search Results from the Browsing Tree or using Search Panel.

It is a good practise to name this combined **Attribute Category** with the name of the Asset Browser for future reference. However, this is not mandatory.

### Remarks

- You can use any quicker browsers like Google Chrome, Edge and Firefox on Windows PC and Safari or Firefox on Mac.
- If the same value for an **attribute** exists in different **Attribute Categories**, the image label will be the same in the Asset Browser. For example if you have attribute named "lemon flavor" for Brand A and Brand B, you cannot have two different images for Brand A and Brand B.
- You cannot search for empty **attributes**. If you are doing a complex search with multiple checkboxes from the browsing tree with one of them without a value, the Asset browser does not give intuitive results.
- Attribute values or list names should not contain disallowed characters for the Windows Operating system file names when setting up a Graphical Asset Browsing. Avoid the double quote as well.

## Troubleshooting

### Problem: The asset browser works fine on on WebCenter Instance but not on another WebCenter Instance

- You need to copy all of the setup to each WebCenter Instance:

- Migrate the ListManager Project or Template.
- copy the images to webinstance\custom\AttributeValueImages

**Problem: You get a message box with “No Search Panel Exists for attribute xxx”**

The chosen attribute is not set to **Available** or **Visible** in the **Search Panel Design**.

### 3.7.6. How to Search for Document Reference Attributes

1. To search for **document references**, click on:
  - the [attributes](#) link from the **Search Projects / Search Documents** page.
  - the **task specifications** link from the **Search Tasks and Approvals** page.

You will get the **Search Attributes / Search Specifications** page.
2. Choose your **Attribute Category** with the reference to the document you are looking for.

**Search Attributes**
✕

---

**Show Attributes in Category**

PACKSHOT\_CAD\_REFERENCE\_PROPERTIES ▾



Available Attributes	Selection
<div style="border-bottom: 1px solid #ccc; padding: 5px; font-size: small;">Filter available Attributes</div> <div style="border: 1px solid #ccc; padding: 5px;">                     CAD_ORIENTATION                      CAD_ALIGNMENT                      CAD_OFFSET_X                      CAD_OFFSET_Y                      PACKSHOT_ARTWORKBOX                      PACKSHOT_ARTWORKANCHOR                      PACKSHOT_FRONTBACK                      PACKSHOT_USERFRIENDLYNAME                      PACKSHOT_PRINTAREAID                 </div>	<div style="border-bottom: 1px solid #ccc; padding: 5px; font-size: small;">Filter selected Attributes</div> <div style="border: 1px solid #ccc; padding: 5px;">                     CAD_PRINTAREA                 </div>
<div style="display: flex; justify-content: center; gap: 10px;"> <span>&lt;&lt;</span> <span>&gt;&gt;</span> </div>	

Clear All

Cancel

Add

3. For each of your **Document Reference Attributes**, you can specify the search criteria as:

Options	Description
<p><b>Empty</b></p>	<p>to search for projects / documents where the document reference attribute has no document attached to it.</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; color: #888;">Attributes...</p> <p style="text-align: center; color: #888;">CAD_REFERENCE is Empty</p> </div>
<p><b>Matches</b></p>	<p>to search for a specific document by its name.</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px auto; width: fit-content;"> <p> <b>Note:</b> supports wild cards and special characters</p> </div>
<p><b>Select</b></p>	<p>to select a specific Document from a specific Project folder.</p> <p>This option gives you a <b>Select Document Reference</b> pop-up where you can specify:</p> <ul style="list-style-type: none"> <li>a Project</li> <li>the Folder</li> <li>the Document</li> <li>a single Version or a Revision. If you specify a revision, all the versions of this revision will become selected. The default is <b>Any version</b>.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px auto; width: fit-content;"> <p> <b>Note:</b> You can select the Project and Folder to specify the location of the document. But the search will locate all the versions of the same document located in different projects as well.</p> </div>

### Search for Reference Documents

Use **Reference** field to search on all document reference attributes or specifications in the **Project / Task and Approval** searches.

You cannot make it viewable or sort on this field. If you want to make the referenced documents visible you will need to do this by making specific document reference attributes visible.



**Note:** It is not possible to search with **Empty** option.

It is recommended to use the SmartName **Document Version ID** rather than the SmartName **Document Name**. The **Document Version ID** SmartName uniquely identifies the document version, when it is searched in the **Matched** mode.

### Searching for Reference and Reference By

Use **Reference** field to search on all document reference attributes in the **Document** search.

When using the **Referenced by**, the resulting Documents will only contain a specific Document if the latest version of said Document is referenced by the selected Document (Version).

You cannot make it viewable or sort on this field. If you want to make the referenced documents visible you will need to do this by making specific document reference attributes visible.



**Note:** It is not possible to search with **Empty** option.

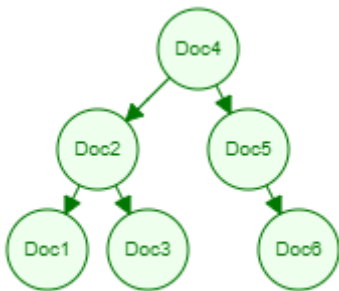
It is recommended to use the SmartName **Document Version ID** rather than the SmartName **Document Name**. The **Document Version ID** SmartName uniquely identifies the document version, when it is searched in the **Matched** mode.

You can search or create saved searches for Documents with reference attributes. You can search for a specific document used as a reference either by name or its project and location.

In both the Reference and Referenced by options, you can use

- **Select/Matches:** to search for the documents that are referencing a given document (version)
- **Select/Matches (any level):** to search for the documents that are referenced by a given document(version)

Find an example below where both options are explained.



The arrows show the relation between the documents (E.g. Doc4 has a document reference to Doc2)

#### Reference

- Select "Doc1" in this field and it will return Doc2.
- Select (any level)"Doc1" and it will return Doc2 and Doc4.

#### Reference by

- Select "Doc4" this will return: Doc2 and Doc5.
- Select (any level)"Doc4" this will return: Doc1, Doc2, Doc3 and Doc5.

Both the Reference and Referenced by support "Any level" searching for Document References. It is possible to turn the "Any level" searching off in the search crawler settings.

When using the **Referenced by**, the resulting Documents will only contain a specific Document if the latest version of said Document is referenced by the selected Document (Version).

E.g. Document A references both Document B (version 1) and Document C (version 1 whilst latest version is version 2) => when searching for "Referenced by" Documents of Document A only Document B will be found.

### 3.7.7. Searching Documents

In **Search for Documents** page, you can filter the search to a specific document type. When a document type is selected from the drop down, all additional parameters configured for the selected document type becomes visible.

#### Search Documents by Version Count and Approval Version Count

As a Project Manager or Admin user, you may want to find the number of versions of a Document existing in WebCenter (Version Count) or want to filter for certain count of Document versions on which approval cycle has started at least once ( Approval Version Count).

To search the **Version Count** or **Approval Version Count** in the Document Search,

- check the field in the view and specify the column order
- enter the criteria in the respective field along with filtering conditions like greater than, equal to or lesser than for Version Count and with filtering conditions like greater than, equal to, and variance for Approval Version Count.

Search results shows the Documents along with the number of versions and number of approval cycles.

#### Searching on Documents

##### Search by Document Size

Users can search for documents which are of a certain size range using **Version Size**.

Version size will only show the size of the version of the document shown in the results. The size of the previous version of the document is not shown.

The **Version Size** criterion is available for all document types. You can search, sort and facet on the size of the document version (in bytes).

##### Search by Document Created Date


You can search the documents based on the creation date in a range or in the specified previous number of days and make it hidden or visible or available in the results.


##### Folder Search

You can search for the folders and it is described in detail [here](#).


##### Live Text in Document

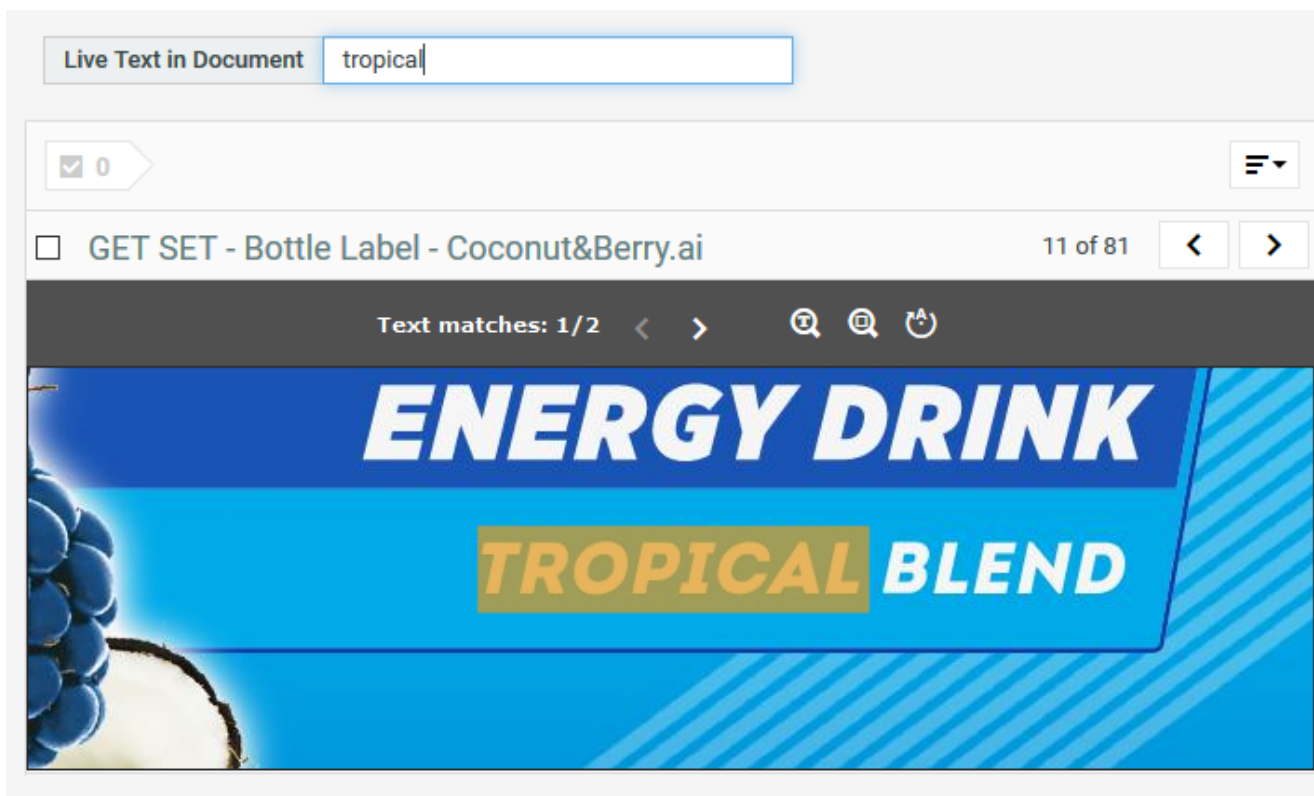
You can search for a text within a PDF, AI or Structured Content document using **Live Text in Document**. This field is available for search, based on the setting in the [Search Crawler configuration](#) set by the Admin user.

 **Note:** Searching for Live Text in Structured Content documents requires the Structured Content license.

 **Note:** Searching for Live Text will not produce results if the text is present within an image or outlined text.

When the search results are shown as a *Focus layout* with a viewer block, the matches for the searched text are highlighted in the document. You can navigate through the matches to see where the searched text occurs. The number of instances of the text occurring in the document are shown in the header.

 **Note:** This field does not support right to left text used in languages like Hebrew, Arabic.



You can navigate through the matches to see where the searched text occurs.



1. Navigate through the text matches within the document
2. Navigate through the pages within the same document
3. Navigate to the next document in the search results

The number of instances of the text occurring in the document are shown in the header. When multiple pages contain a match for the searched text, it is indicated with an asterisk and navigating through the matches will also navigate through the different pages. By hovering over an arrow, you can also see the number of pages containing a match.

Search for Live Text in Document only works on left to right text. For example, text in Arabic or Hebrew are not supported yet.

### Search Document by Reasons for Rejection

You can search on documents for **Reasons for Rejection**. You can either search for the current version of a document or search for all versions of the document.

Both the fields has 3 modes and a text field where you can enter any text. You can search for:

- Both Category and Reason (default)
- Only Category
- Only Reason

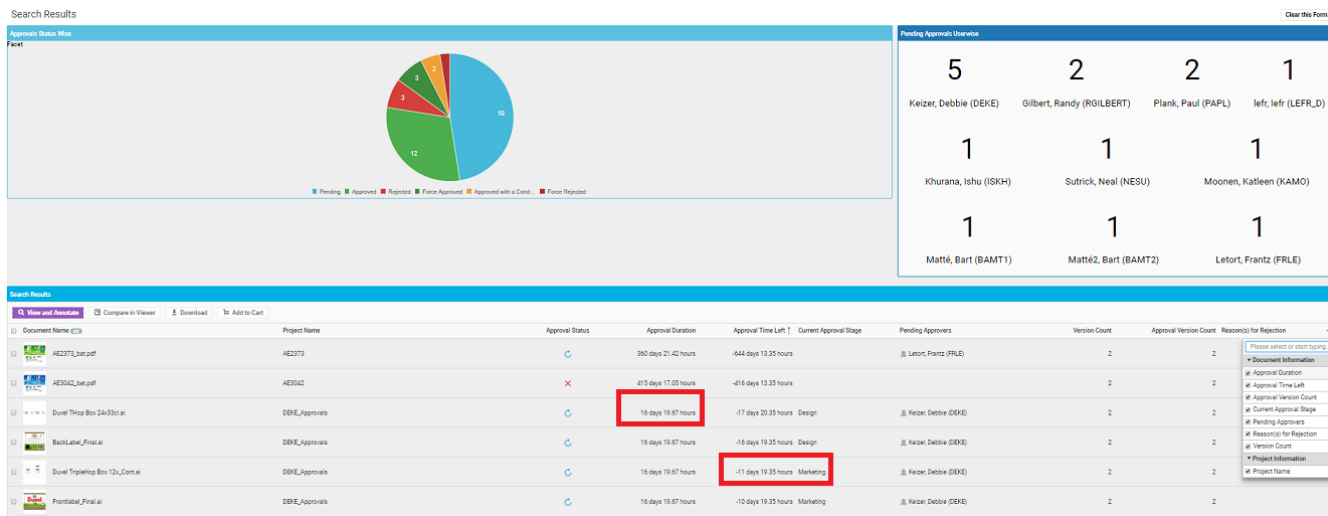
When searching in **Both Category and Reason**, this specific reason can be found by using the same format as shown in the search results: "reason (category)" or "reason" (if there is no category).



**Note:** The results are sorted on the **Category** and then on **Reason**. Reasons without a category are displayed after all the reasons that have a category.

### Document Duration

Duration Metrics for a document are related to the Approval cycle(s) on the document.



Some of the fields you can use to know the metrics of a document approval are

- **Start date** which is the start date of the approval cycle of the document
- **Due date** which is the due date of the approval cycle of the document
- **Completion date** which is the date and time the document reached an approved status
- **Approval Duration** is the time between the start date and the completion date when the documents are already approved. When the document is not approved yet, it is the time from the start date until the current date and time.
- **Time Left** is the time in days that is still left until the due date. When the documents are approved before the due date, the **Time Left** is positive and shows the number of days it is ahead of schedule, whereas when the document is approved after the due date, the **Time Left** is the number of days the approval was overdue. When the document is not yet approved, this is the time between the current date and the due date.

## Searching for Text Content Document

### Search and Select Text Content in Search Menu

To search for Text Content, go to **Search > Documents > Search for > Text Content**.



## Search for Documents

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

Search for:



- Use Advanced Search Characters [i](#)
- Search Panel Design  Enable SmartNames [i](#)

### TEXT CONTENT INFORMATION

Element Type

Document Status

### Statement

	Language	Danish	▼
	Translation		▼
	Text		... ▼
	Modified		▼ +
Document Name			
Version Author	 		
Author's Location			
Description			

today

yesterday

before today

this week

last week

this month

last month

this year

last year

more options...

You can search based on the Text Content Criteria such as:

- **Element Type:** To search for a document based on its Element Type, select it in this field. Smart Names are available when **Enable SmartNames** is selected. Read more in: [Element Types](#).
- **Document Status:** To search documents based on its status, select the status (**Draft / Signed Off**) from the drop-down.
- **Statements'** criteria: These fields allow you to select and search based on:
  - **Language** of the Text Element. For example, select `English - United States` to search for Master statements in English(US).
  - Whether the Element is a **Translation** or **Master**. It can be specified in the **Translation** drop-down.
    - The directionality of the text will be based on the language selected. You can search both **Master** and **Translation** languages for right to left languages like Arabic or Hebrew.

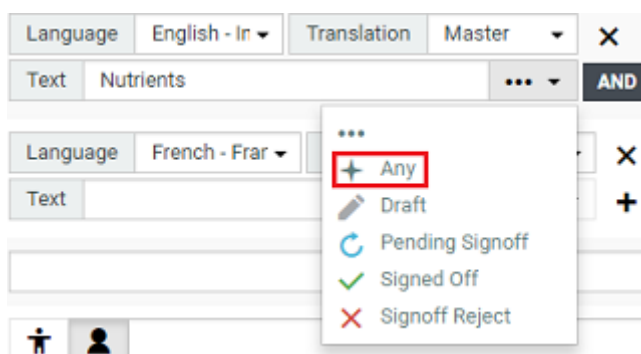


**Note:** You can also leave these fields blank. If the language field is blank, all languages (both Master and Translated) are searched for.

- Actual **Text** from statements: Type the word you want to search in the **Text** field.
- **Text Element Status:** Click ... and select the status from the drop- down. For example, you can search for Signed-off statements with a particular text piece.
- Modified: Specify the time line you wish to search for like today, yesterday or last month etc .
- A combination of Text Statements' criteria

You can add new rows for additional search criteria by clicking +. When you have multiple rows, you can use either **AND** or **OR** operation to refine the Search.

You can also ignore the search criteria mentioned and only display the results by choosing **\*\*\*** icon or you can choose the **Any** option to show results of text documents in any of the status.



In the example screen shot, the **Search** will find all Master Statements with **Nutrients** in its content **AND** with French- France as Translation.

### Configuring Text Content Documents Search Results

The Search Results page shows all Text Content Documents that match the specified criteria. Each **statement** row selected to **View** is represented as a single column in the Results.

Search Results Save This Search Save Search Results

View and Annotate Compare in Viewer Download Add to Cart

Name	Description	Project	Element Type	Document Status	Master: English - United States	Version Author
Content claim.wcc	Briefing_deketest (01)		Content claim		WITH 26 NUTRIENTS	Keizer, Debbie (DEKE)
Content claim.wcc	Briefing_KADA Test (01)		Content claim		WITH 24 NUTRIENTS	Conway, Antony (ACON)
Content claim.wcc	Drupa16_BO Library		Content claim		WITH 24 NUTRIENTS	Conway, Antony (ACON)
Content claim.wcc	PCM Text Library		Content claim		WITH 24 NUTRIENTS	Conway, Antony (ACON)

Found: 4 items. Page 1 of 1



**Note:** You can save Text Document Searches in Excel. The document statuses are not included in the Excel export.

### Search Results Options

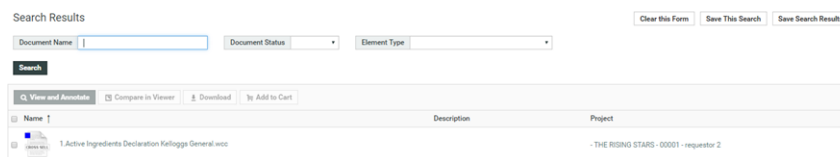
To customize the Search Results, select your criteria in the **Search Result Options** fields. The **Document Name** is selected by default but can also be removed by unchecking the box. Read in: [Search Result Options](#) on page 577.

### Search Panel Design

As an Admin, you can setup a Text Content Search with a [Design Panel](#) just like other document saved searches. The users can select individual text statement criteria in the Panel to filter the search results.

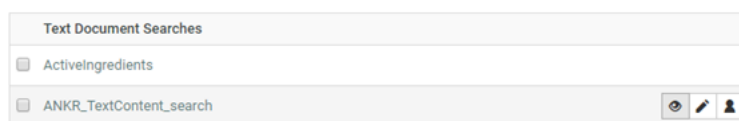


**Note:** When smartname is selected for the language field, to view each resolved language in a separate column in the Search Results page, select the view as visible.



- Note:**
- If no **Statement** language is selected from the language drop down, you will not be able to view it as a separate column. The results will then match Text statements of any language.
  - If the language chosen for the text has the directionality right to left or a custom font, then the text is also rendered right to left or in the custom font in the search results.

### Saved Search for Text Content Search



To view My Saved Searches, go to **Search > Saved Searches**, you can view the saved search in the table under **Text Document Searches**. Saved Search for Text Content Document behaves exactly like any other document saved in the WebCenter.



**Note:** Only an Admin can modify the visibility of a Global Search.

### Search Document by Folder

You can now search and display the folder where a document resides. Folder Search is useful to set up searches, to find certain types of assets. For example, when you have to search for pack shots in a certain folder in the project. You can either select the root folder, or search with the name of the sub-folder.

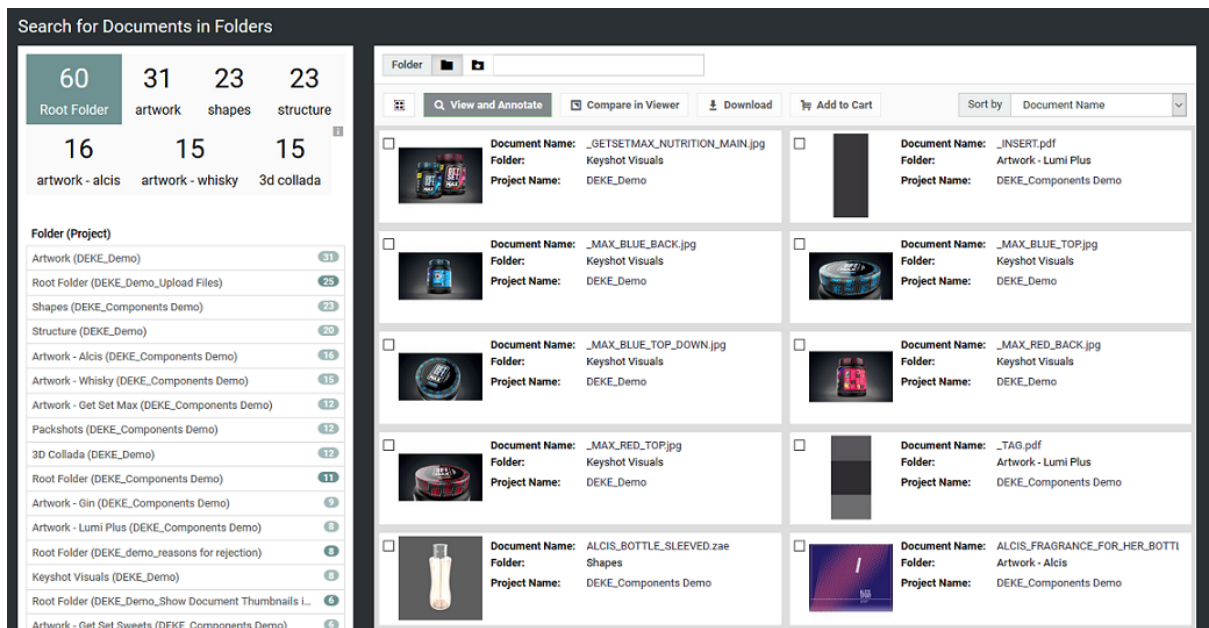
There is a new filter on the document search where you can specify the folder to look for. You can either search in the root folder or the name specified.



You can facet the search results for folders in three ways namely:

- **Grouped by Folder Name**

When searching the system for documents, you can group all the folders by name when you facet on the results.



- **Individual Folders**

When searching the system for documents, you can have the folders shown individually when you facet on the results. In this case, the project name will be appended because you can have multiple folders with the same name in different projects.

- **Project Context**

When searching for documents and faceting on the folders within a project context, this facet option will mimic the folder structure of the project, meaning all folders are listed, even when they are empty, and the ordering is the same as on the project documents page.

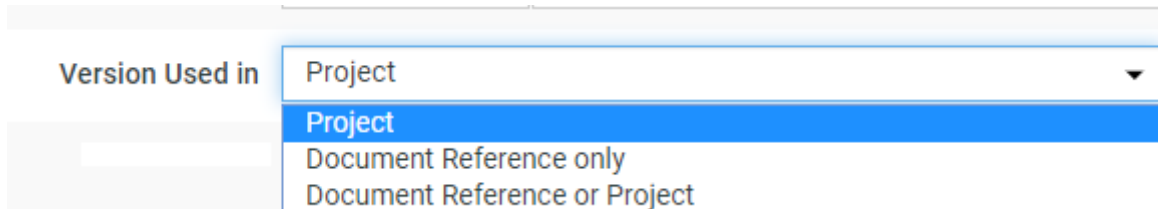
### Search on non Latest version of the document

In WebCenter 18.1.1, we added a new option to search index documents which are referenced to earlier versions.

To enable this feature, **Admin users** must select **Index all currently referenced Document Versions** in the **Search Crawler Setup** page. The index is rebuilt wherever the option selection is changed in the setup.

This option is only useful, when you have the older versions of the documents which are referenced and it would occur when a document reference with the **"Selected Version"** option is used.

When this option is turned on, the Document search setup page has a new field, **Version Used In**.



Following are the options that can be chosen when you search for a document based on the version used.

- **Project** is the default option selected and the search returns versions of the documents that are linked into a project or are the latest version of a document revision.
- **Document Reference only** option limits the search to referenced document versions that are not the latest in any Project or Revision.
- **Document Reference or Project** returns any version in a project or referenced by any other document.

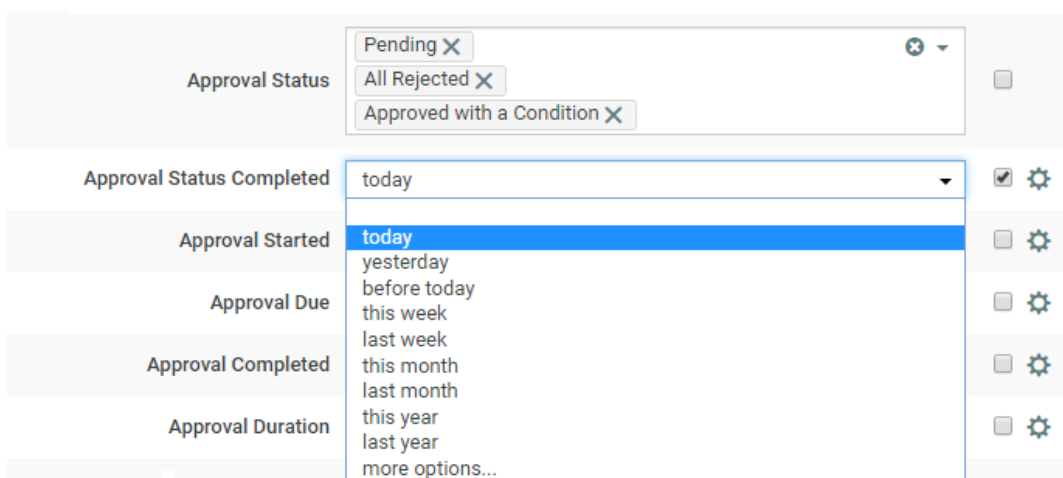


**Note:** Only versions referenced from a document reference in Documents are taken into account and not if a version is referenced from a document reference in a project.

### Search on Approval Status

You can search for more than one Approval Status by selecting multiple statuses in the **Approval Status** field and you can also search on **Approval status completed** field.

With the Approval Status field you can also search for documents where the approval is stopped or not set up yet.



### 3.7.8. Preview of Structured Content in Search results

To search for structured content, you need to have the structured content license.

1. Select **Structured Content** in the **Search for** list to show search parameters specific to structured content documents. You can find them under the **Structured Content Information** heading.
2. While the **Content Type** is **Structured Content**, you can add **Segment** or **Text Content** to also search in these types of content.
3. You can search for structured content documents in one or more specific language(s) using the **Content Language Code** field, or leave it empty and use the **View** and **Sort** options to display/sort by language code(s).
4. You can use the **Text in Document** field to search for a specific portion of the document's contents, and to show it in the search results. You need to select the **View** option for this. Enter some text to show about 200 characters around the first instance of your text in each document found, or leave the field empty to show the first 200 characters of each document.

### 3.7.9. Search on Pending Approvers

#### Pending Approvers

You can make the **Pending Approvers** column visible. This column shows all the approvers who still need to approve. You can also sort, facet, and filter on **Pending Approver**. There is a configurable option to show the assignee details of the **Pending Approver**.



**Display User**

To enable the navigation and filtering for specified approver(s) easier, you can choose to configure this fields results. You can choose to show the pending approver(s) field in the Search results page either as **Name** or **Avatar and Name** or **Avatar only**.

### 3.7.10. Searching for Parent or Child Projects

It is possible to search for Projects which are related in a Campaign or Program. This is very useful in creating Saved Searches that can be used in the context of a Program or Campaign.

It is also possible to use these Project criteria in the Document and Task searches.

You can use the fields: **Parent Projects** or **Child Projects** to specify a name criterion.



**Tip:** Use SmartNames to use Saved Searches in the context of a Program or Project. If you set the **Parent Project** as the [Project id], your results will list all the Child projects of the current project. See more in: [SmartNames in Search](#) on page 249



**Note:**

- The search results depend on the view permissions of the user.
- It is possible to save the Parent and/or Child Projects in Search results to Excel if that option is selected.

If you specify the **Parent Projects** field as `campaign_`, the search will look for Projects with a Parent Project with "campaign\_".

#### Searching in Parent Projects

When you are searching for Projects who has a certain Parent, you have three options:

- **Search only in Direct Parent Projects:** Use this option if you want to search in Projects that are one level higher in the Program structure.
- **Search in all Parent Projects:** This option lets you search in all Parent Projects directly above and in all higher levels in the Program structure
- **No Parent Projects:** Use this when you have to search in Projects that are at the top of the Program structure, or the Projects which do not have parents.

#### Searching in Child Projects

When you are searching for Projects with certain child Projects, you have three options:

- **Search only in Direct Child Projects** to search in Projects that are one level below in the Program structure. The second(and deeper) level Projects will not be considered in this search.
- **Search in all Child Projects** lets you search in all Child Projects from all levels.
- **No Child Projects:** Use this when you have to search for Projects that do not have Child Projects.

### 3.7.11. SmartNames in Search

Administrators can create **Saved Searches** with **SmartNames**. SmartNames are variables that will refer to a value when placed in the **right context**.

Read about the SmartName [here](#).



**Note:** These searches will resolve only in the context of the **Project / Document** and will not be useful as a general [search](#).

When you plug in these searches into a project / document, these SmartNames will resolve with values retrieved from that context. For example, if you create a **saved search** for finding the related projects, your users will be able to view the search results within a project tab. Read more in: [Use Case: SmartName Search to find Related Projects](#).

You can also use SmartName searches as the document sources in [Document Reference Attributes](#) and Project Creation.

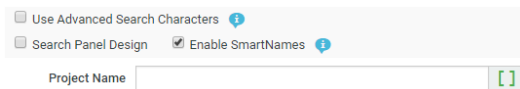
These SmartName searches will display different results in different projects/documents as the context of the SmartName changes.

### Using SmartNames in Saved Searches

A SmartName is a variable that will refer to a value when placed in the right context (For example, within a project or in the context of a document).

To create a SmartName powered search:

1. Go to **Search > Documents** or **Search > Projects** or **Search > Tasks**.
2. Enable **SmartName**.






All your search fields will display the SmartNames  icon.

If a SmartName used in a Saved Search has no values, Search shows an error when executing the Search. You can customize the **SmartNames without values** option via the gear icon next to **Enable SmartNames**.

### Search for Projects

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

Use Advanced Search Characters 

Search Panel Design  Enable SmartNames  

Project Name

Description

**Configuration Options**

**SmartNames without values:**

Note that removing or replacing SmartName account (e.g. `Example*` OR `"[Some SmartName Example*"` after removal of the SmartName



The available options are:

- Show error
- Remove SmartName from filter
- Replace SmartName with EMPTY keyword

Examples for removing (or replacing) SmartNames with the syntax

Example\* OR "[Some SmartName]" becomes:

Example\*

after removal of the SmartName (on the condition that the SmartName is empty)

You can also combine multiple SmartNames or combine it with EMPTY:

"[Some SmartName A]" OR "[Some SmartName B]"

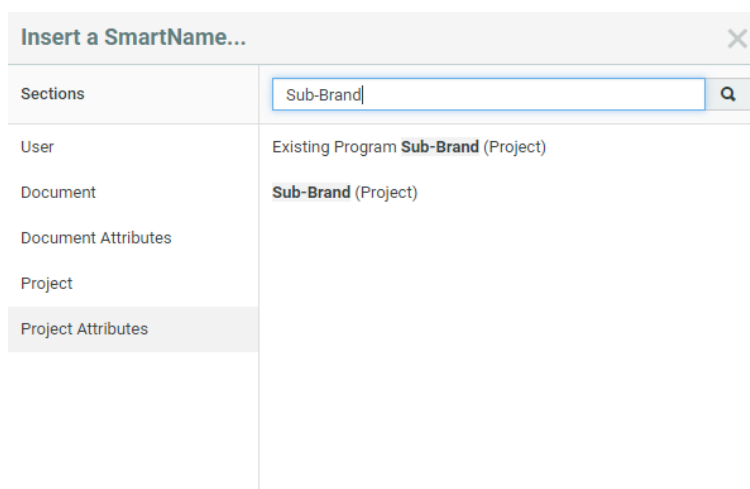
EMPTY OR "[Some SmartName]"

These examples even work with empty SmartNames. The **Replace SmartName with EMPTY keyword** option can be used in case you do not want to find Documents, Projects or Tasks where the value is not filled in, unless the SmartName you search with is also empty.

3. Click on the **+[]** icon in the field where you want to configure the SmartName.

For example, Project Name can indicate the group of projects it belongs to. In this case click **+[]** in the **Project Name** field.

4. In the SmartName dialog, choose the SmartName.

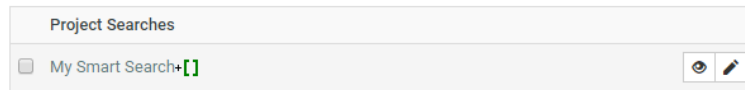


5. Save the search. Your SmartName search will appear in the list of **Saved Searches**.



**Note:** SmartName enabled searches can be saved only as **global** searches. These searches will be visible only to the **ADMINS** group. You can change the visibility of the search by clicking the **Edit visibility** button. Read more in [Creating Advanced Saved Searches](#) on page 193.

Global



You can plug these searches into the relevant projects where the SmartName will get resolved. Your search results will then list the results based on the context.



**Note:** If a SmartName gets resolved into multiple values (a multi-value Project Attribute), your search criteria will be all of those separated by the OR separator.



**Remember:** If you execute a SmartName search from the **saved searches** page, you will not get valid results.

**Save as Global when SmartName Context is enabled**



**Note:** SmartName enabled searches can be saved only as **global** searches. These searches will be visible only to the **ADMINS** group. You can change the visibility of the search by clicking the **Edit visibility** button. Read more in [Creating Advanced Saved Searches](#) on page 193.

**Use Case: SmartName Search to find Related Projects**

When you have a group of Projects under a Packaging Project / Program, your projects share **attributes**. You can use these common parameters (in the search) to display the related **projects / documents**. This is also useful when you have derived-projects created using the **Create Project** node.

Depending on your business needs, you can customize a SmartName powered search and plug this as a tab in the **projects** details page. For example, you can display all the derived-projects in one tab and all the related projects in another by plugging in **SmartName saved searches** in these custom tabs.



**Tip:** You can configure this as a dedicated [menu](#) item for the **Project Details / Document Details** page.

**SmartName Searches in Project Details / Document Details**

To use your SmartName powered searches as a dedicated tab of the Project / Document details page, [create a custom menu item](#).

You can link this custom tab to a **saved search** with SmartNames. The SmartNames will resolve to values derived from the current Project (for Project Details Menu Items) or Project and Document (for Document Details Menu Items) context.

The user / group / company with this menu will have a custom tab displaying the search results based on the SmartName criteria.

**Use a SmartName Saved Search as a Document Source**

You can create custom **Document Sources** using dedicated SmartName searches. You can use these as sources in:


- Project Templates with [Document Creation Settings](#) on page 175.
- Documents or Projects assigned with [Document Reference Attributes](#)

When the user uses this source during Project creation or to add documents to a task within the Project, the Saved Search configured as the document source is executed from the current Project / Document context.

### Setting up a SmartName Saved Search as a Document Source

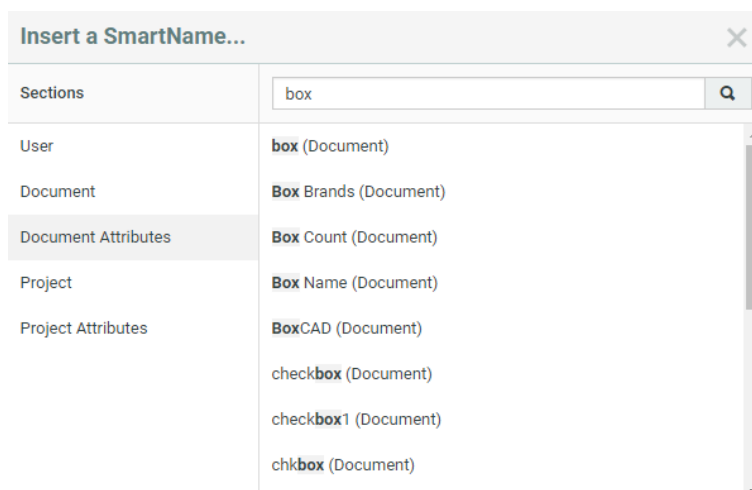
1. Go to **Search > Documents**.
2. Enable **SmartName**.

All your search fields will have a SmartNames + icon next to it.

3. Click on the **attributes** link.
4. Click the + icon next to the attribute from your attribute category.

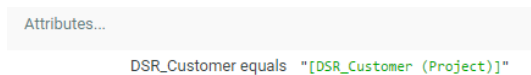
As an example, if you want to setup a document source for a Customer, from the library of your CAD files:

- specify the customer related attributes as the SmartName search criteria.



**Tip:** Configure [Search Layout](#) options to get an advanced layout.

The selected attribute(s) will appear in the search form.



**Tip:** The above example will work only in a document assigned with a document reference attribute (category). If you would use this as a document source in project creation, use the [Box Brands (Project)] as the SmartName.

5. Save the search.

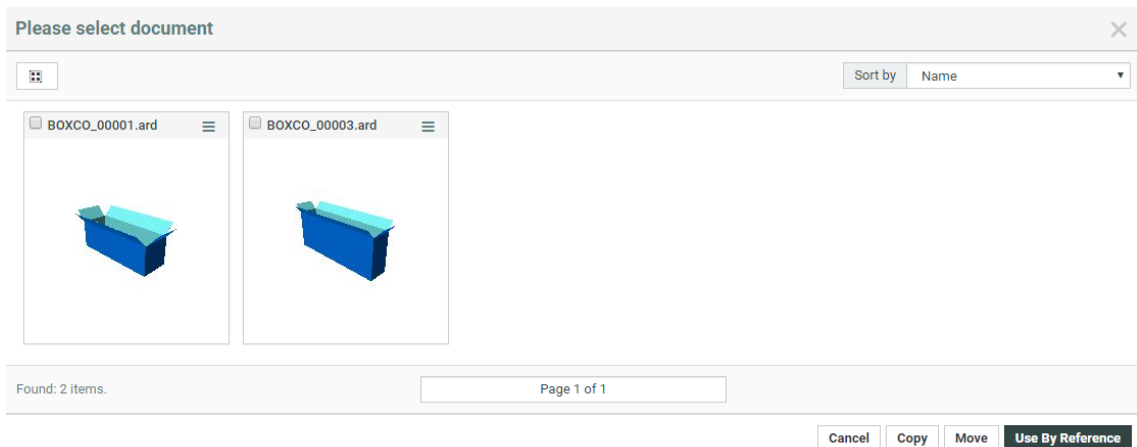


**Tip:** If you want to limit the scope of the search within a library of documents (a repository project), specify the project name as another criteria.

You can add this search as a document source in:

- [Document Creation Settings](#) on page 175 of Projects / Templates.
- Document sources in [Document References](#) on page 373

When the user clicks a custom link to add a document as a [document reference](#), the result will be a pop-up with the saved search results. You can configure the [search result layout](#) settings to configure the features in the document source pop-up.



### 3.7.12. Drilldown Searches

You can use Project search based **drilldowns** to set up a:

- Drilldown into all levels of Projects. This feature allows the Program Manager to explore project data beyond the overview. If you have a nested structure (Project / Grouping / SKU / Components) in your Program, an expand button lets you access the next level.
- Drilldown into Components (documents) or Tasks.

#### Use Case: Program Search

1. The parent Search with Programs. This example shows a [Search Results Dashboard](#) on page 256 with **counters**.
2. The second level of Drilldown executes the **Saved Search** specified in the parent search. This search contains a **Dashboard** with a **Facet Graph**. [Configure a Drilldown Search](#) on page 255
3. The third level of **Saved Search** with a **Document Search**.
4. The expand button to execute the drilldown.

### Configure a Drilldown Search

To create a drilldown view, you need a Search with the **Drilldown** option turned on. As a result, the parent search will have an expand button in every row of the results table.

When you click to expand, it will execute the Saved Search or show a Dashboard.



**Note:** For Task and Approval Search, the only available drilldown option is Dashboard.



**Note:** Drilldown expand buttons are only shown in the List view of the Search results.

1. To set up a Search to show a drilldown of child Projects or related documents:
  - a) Search for your Programs (Parent Projects) or Documents.
  - b) Select **Saved Search in Drilldown** in the **Show Results Layout Options**.
  - c) Save the search with all the advanced settings you want. Read more in: [Creating Advanced Saved Searches](#) on page 193
2. To create multiple levels of **Drilldown** searches:
  - a) Create Searches for all your sub-levels and save them. Optionally, configure [Dashboards](#).
  - b) Specify the **Search Criteria** for your parent search.
  - c) Select **Saved Search in Drilldown** and specify a **Saved Search** from the drop-down.
  - d) Create further levels using the same steps.

To configure the layout of the drilldown in the search results, choose any of the three options for the **Layout, Selection and Actions**. Read more about it [here](#).

**Note:**

- The Dashboard Facets will display the data based on the specified Saved Search. Clicking on a Facet (Graph/List/Counter) section will refine the search results of child search.
- It is recommended to use Document Version ID SmartName rather than the Document Name SmartName, since the Document ID is unique.

### 3.7.13. Search Results Dashboard

A WebCenter Search dashboard organizes and creates a visual representation of your data along with tables. It is built using a set of smaller components (blocks) with specific information. The admin has to configure each of these blocks in a Saved Search.

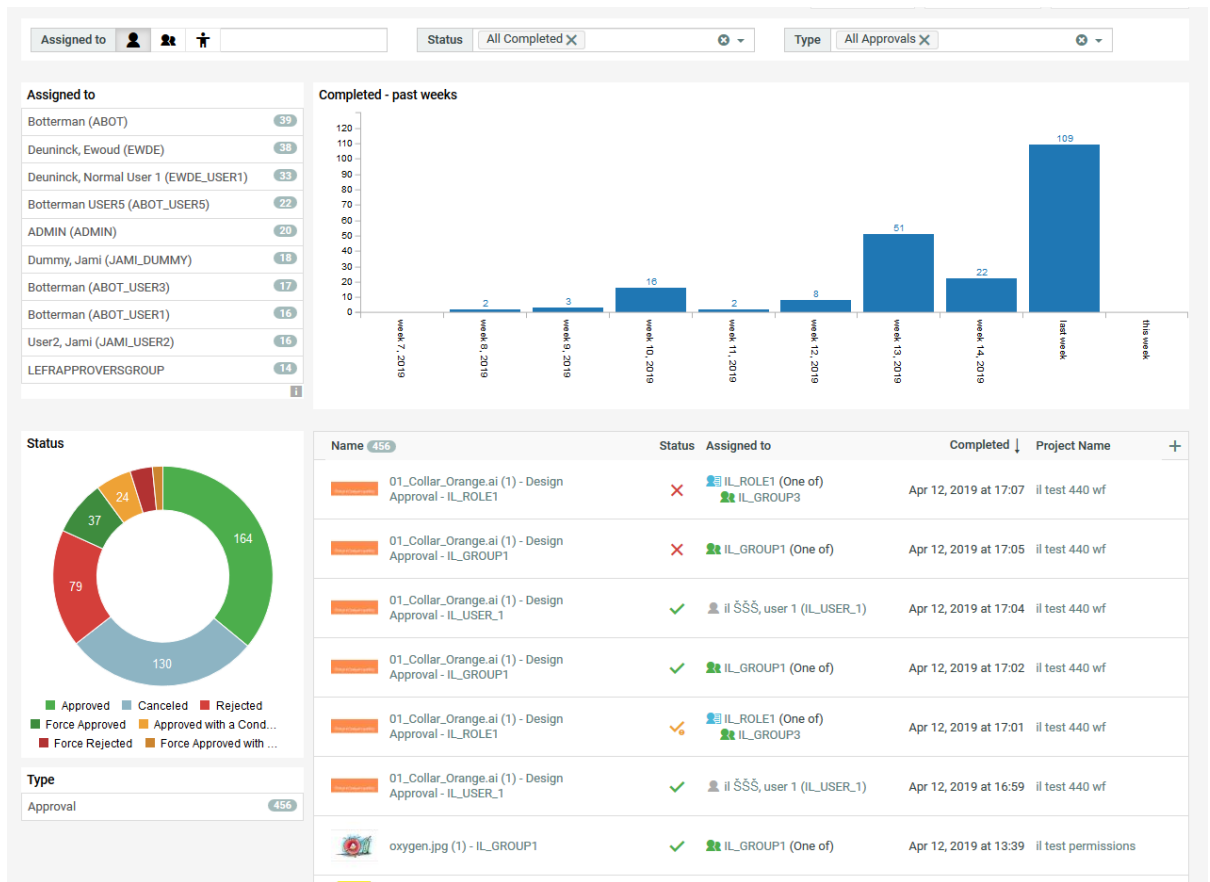
You can decide the layout and configure it with the components that suit your user's interest. To configure a **Search Results Dashboard**, you can simply drag each component into your canvas from a gallery. You will have live editable preview as you configure each of the dashboard component. Each of these components can accommodate specific settings and search criteria.

All the search-specific blocks like facets, results table, asset browser, cart, design panel will show a preview with real data instead of just a placeholder. When editing the configuration or dragging in new blocks, the search will rerun to load the new data and the preview will be updated.

You can configure **Dashboards** with **Project/Document/Task and Approvals** searches.

Once setup, you can use **Dashboards** on your user pages such as:

- **My Work**
- **Menu**
- **Project Details** with context aware [SmartNames](#)
- **Drilldown** overviews of Projects/Programs
- **Asset Browsers**



**Note:** Live preview is not available when the dashboard is configured with SmartNames in it.

## Types of Dashboard Blocks

### Dashboard Blocks

A **Dashboard** consists of several building **blocks** that can show information as graphs, counters or tables. These are interactive and you can use it to refine the displayed data. You can configure several such **Blocks** in a **Dashboard**.



### Type of Blocks

General	<ul style="list-style-type: none"> <li>• <b>Rich Text Block</b></li> <li>• <b>Selection Panel</b></li> <li>• <b>Counter</b></li> </ul>
Layout	<ul style="list-style-type: none"> <li>• <b>Collapsible Section</b></li> <li>• <b>Column Layout</b></li> <li>• <b>Left Side Panel Layout</b></li> <li>• <b>List Layout</b></li> </ul>
Search Facets	<ul style="list-style-type: none"> <li>• <b>Facet Bar Chart</b></li> <li>• <b>Facet Counter Bar</b></li> <li>• <b>Facet Donuts Chart</b></li> <li>• <b>Facet Horizontal Bar Chart</b></li> <li>• <b>Facet List</b></li> <li>• <b>Facet Pie Chart</b></li> </ul>
Search General	<ul style="list-style-type: none"> <li>• <b>Search Details</b></li> <li>• <b>Search Design Panel</b></li> <li>• <b>Cart</b></li> </ul>



- **Asset Browser Side Panel**
- **Asset Browser Image Panel**

## Configuring the Search Dashboard Layout and Blocks

To configure a **Dashboard**, you can utilize any of the building blocks depending on your requirements. You can make a visual representation of your search results using various faceting blocks. You can see how your configuration will look like when you start building your **Dashboard** live.

- From the **Project/Document/Task and Approvals** Search page, click on **Search Results Dashboard**. It opens up a canvas with a gallery on the left hand side. The gallery displays all the available [blocks](#).



**Tip: Search Result Dashboard** now supports Internationalization. You can define translations for Block titles, Counter Labels and Rich Text fields.

- Arrange your **Layout** blocks.
  - a) Drag **Layout blocks** into your canvas. You can use combinations of list, left side panel, column layouts and collapsible section to present your blocks.
    - Select **List Layout** for a vertical list of blocks and **Column Layout** for a horizontal arrangement.
    - Select **Left Side Panel Layout** to present information in a left side **Column Layout**. This pre-defined layout can be modified to suit your needs.
    - Select **Collapsible Section** to present info which can also be hidden and expand one or more blocks based on the requirements.
    - Select **Column Layout** to display blocks in configurable columns. When the user adds a Column Layout to the dashboard, the layout is preconfigured with 2 columns.
  - b) Add **Rich Text Blocks** to add any Text message/ information to your users.
- Determine the dimensions of your **Layout** blocks
  - a) Specify **Spacing** to define space between **Layouts**. This is optional and use it if you want to separate the **layout blocks**.
  - b) To style your **Column Layout**, you define the width, minimum width and maximum width of individual columns. If you leave the **Width** as empty, the columns will fill according to the available space.
  - c) Fill each of these **Layout blocks** with the **Search** and **Facet** type of blocks.
- Configure the **Facet blocks**. To configure a Facet Graph, List or Counter Bar, specify the **Facet** field (Search criterion) to facet on and the maximum **number of facets** to be displayed.

Read more about Facet fields in: [Facet Settings](#).

  - a) Drag your **Facets** into the **Layout** block.



- b) For any **Facet** block, you can select the **Type** from Bar Chart, Horizontal Bar Chart, List, Donut Chart, Counter Bar and Pie Chart (default).
- c) Use **Customize Value Order and Colors** [Customize Labels and Colors](#) on page 261 to configure custom labels and color definitions for **Facet Graphs**, **Facet Lists**, and **Facet Counter Bars**.
- d) Specify the dimensions of your graph or chart (**width** and **height**). This is an optional step and if the sizes are not specified the graph fits to the available space.
- e) For **Facet Counter Bars** ( Facet and Search Based Counters ), you can specify the **Style** to adjust the display size.
- f) Optionally, specify a **Block Title** and enable **Show Block Title and Border**. This will enable a color picker from which you can specify the **Border color**.

You can add **Search Results**, **Search Panel**, **Cart Asset Browser Side Panel** and **Image Panel** to your **Dashboard** layouts.

### Building a Search Based Counter

You can use a **Counter** block to display the total count of a Saved search.

To configure counters for your dashboard follow the steps below:

- Specify a Global **Saved Search**. In the counter display, the dashboard will show the count of this particular search.  
You can use a SmartName based search in a counter. If the SmartName cannot be resolved, the counter will show a -.
- Add a **Label**. If you did not specify a label, the counter displays the Saved Search's name.
- Specify a **Background Color**.  
The default color is green and you can change the color by typing a hex value or picking a color using the color-picker.
- Select a **Style** from the drop-down: Extra small, Small, Small Left Aligned, Default, Default Left Aligned, Large, Large Left Aligned and Large No Label.  
You can configure several of these counters in a column layout to create an interesting overview. Read more in: [Program Dashboard with a Drill-down View](#) on page 500.



**Note:** Enable or disable the **Run Search on Click**. This option is enabled by default. If this option is on, you can click the counter to view the search results in the current window.

## Customize Labels and Colors

### How to Customize Labels and Value in Search Results

This option enables to configure the labels and color definitions for the **Facet Counter Bars, Facet Graphs** and **Facet Lists**.

When any facet block is configured, there is an option to **Customize Labels and Colors** to modify the labels and colors for the values selected. This can be used for string and status fields.



**Note:** Date and user fields cannot have custom values. For example, if you are configuring **Roles** in a facet list, then this option is not visible.

If this option is enabled, a new section appears in the configuration panel. A table is displayed in which custom labels and color definitions can be configured. Click **Add Value** and a new row is added to this configuration table.

### To Add Value

To customize the labels and colors for the facet values, you can either select the values from the drop-down list, input fields or even a range of values based on the facet chosen. For each value, a custom label and color can be defined in the row. You can reorder rows by drag and drop. To delete the row, you can click delete button at the end of the row.

Faceted fields like project status, approval status that have predefined colors that denotes a status, do not allow color customization.

Enable **Only display currently defined custom values and order** to restrict the display of only the customized values. In that case, the option **Maximum number of facet values** is ignored and **Number of values** field and the corresponding drop down becomes invisible.

## Facet Settings

Facet blocks (see [Types of Dashboard Blocks](#) on page 257) allow you to visually represent your specified search field (Facet). You can use the cascading drop-downs of available fields to specify the Facet.

The Number of Facets (**Number of Values**) field determines the maximum number of facet values displayed in the graph/ chart/counter bar/list. The facets with the most number of results get priority in the chart/graph/list/counter bar display.

### Facet Settings- Project Search Fields

1. **Project Information** has the following fields in the drop-down:

- Attribute Category
- Completed
- Created (date)
- Customer/Location (company/location)
- Due (date)
- Manager Location (company/location)
- Modified (date)

- Project Creator
  - Project Manager
  - Project Template
  - Project Status
  - Salesperson
  - Started
  - Time Left
2. To facet on a Role, select it from the Roles drop-down.
  3. To facet on an Attribute, specify it from the Attributes drop-down (Text attributes, Text restricted set attributes, Numeric and Date Attributes).
  4. You can facet on the Project Status Duration, Project Status Started, Project Status Completed, Project Status Due Date and Project Status Time Left. You can read about it here.

**Facet Settings- Document Search Fields**

1. **Document Information** Facet has the following criteria:

- Approval Completed
- Approval Due
- Approval Duration
- Approval Started
- Approval Status (status only)
- Approval Status Completed
- Approval Time Left
- Approval Version Count
- Attribute Category
- Author’s Location (company/location)
- Created
- Current Approval Stage
- Folder
- Modified (date)
- Pending Approvers
- Version author
- Version Count
- Version Size



**Note:** When you select **Version Count**, you can specify the range of the values and customize the label names and the display colors.

2. **Document Attributes:** You can specify the attribute from the Attributes drop-down with Text attributes, Text restricted set attributes, Numeric attributes and Date attributes.

When you choose numeric attributes, range of values has to be specified and labels can be customized for display. The range and the label are displayed in the same order.

3. **Specific Document Information** You can also add specific document meta data based on the document type searched for and display in the search dashboard. When you search for text content documents, you can show for Document Status and Element Type.

**Facet Settings- Task and Approval Search Fields**

1. **Task Information** Facet can be of the following criteria:

- Approval Master
- Assigned To

- Assignee’s Location (company/location)
  - Completed (date)
  - Completed by
  - Due
  - Duration
  - Final Approval Status
  - Modified (date)
  - Reason(s) for Rejection
  - Stage Approval Status
  - Started
  - Status
  - Task Created (date)
  - Task Created by
  - Task Estimated
  - Time Left
  - Type
2. You can also Facet on Task Specifications. The Specifications (Numeric, Text, Text restricted set and Date) are listed in the adjacent drop-down.



**Note:**

- When you select a **Date** criterion, you can specify the time in the past or future days, weeks and months when applicable.

## Facet Search: Viewing Search Results

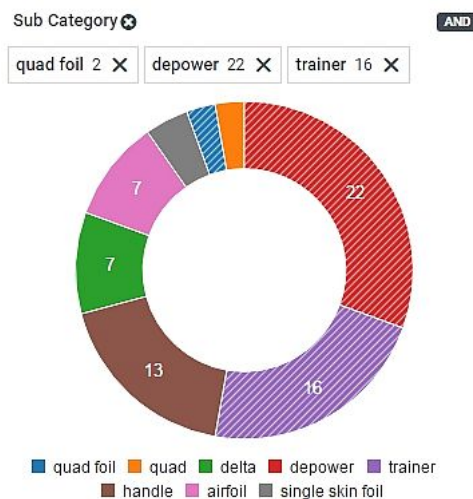
### Facet List

A **Facet List** presents the search information in a List. All possible values for the faceted field ( the search criterion specified) are presented in a list form in the descending order of the number of occurrences (displayed in the list as a badge).

Project Status	
Status	
Active	2116
Wait for Files	113
Non-active	46
Nightcrawler	39
CalDemo Completed	37
Completed	34
PRMA_Initial	27
PRMATest	26
SAH_STATUS_ACTIVE_1@1	13
SAH_STATUS_ACTIVE_2	10

### Facet Graphs

**Facet Graphs** present the data based on the Facet Field as a graph like bar or vertical bar chart or as donut chart or pie chart. All possible values will be presented as separate sections in the graph. There is priority for the values with the number of occurrences if there is a specified value for the Facet Field. Read in [Facet Settings](#) on page 261.



### Facet Counter Bar

The Facet Counter Bar lists the number of occurrences of the faceted field in a horizontal bar and similar to the Facet List, the counters appear in the descending order.

You can specify the **Style** to adjust the alignment and size of the counter bar.



**Note:** The number of values of the faceted field is restricted by the **maximum values** set in the [Dashboard Facet settings](#).

### Refining Search Results using AND/OR Operations

To refine the search results to one particular value (of the Field/Criterion), simply click on the item (or section) in the List. The results will be refined and you will see 'x' icon to deselect. You can either use 'x' or click on the value again to deselect it.

By default, this is an **OR** operation. To display a results of all the selected 'values' of a particular **Field**, you can simply click on all of them and switch the operation to **AND**.

When you click on a list/counter/graph item or section, by default, search uses an **OR** operation to refine the results. For Facet Fields (**Attributes/Specifications/Roles**), you can switch to the **AND** operation to combine these sections.



**Note:**

- The **Information Fields** (Project, Task and Document information) do not show an operator.
- The Date and Time Fields show only **OR** operator.



**Important:** Clicking on a section would automatically update your search results if the **Show Search Button** option is turned off. If this option is on, you have to select a section and then click **Search**.

### Default Colors

If you are faceting on project statuses or document approval statuses, the appropriate colors are used for the count badges, graph sections and counters.

### Image Spinner

**Image Spinner** allows you to display selected images in a Dashboard. This can be a display of your relevant artworks or any relevant images.

See the settings of this block below:

- **Saved Search:** Select a **global saved search** of graphical documents (pdf, ai, png, jpg, jpeg). The first 25 images will be displayed in the **image spinner**.

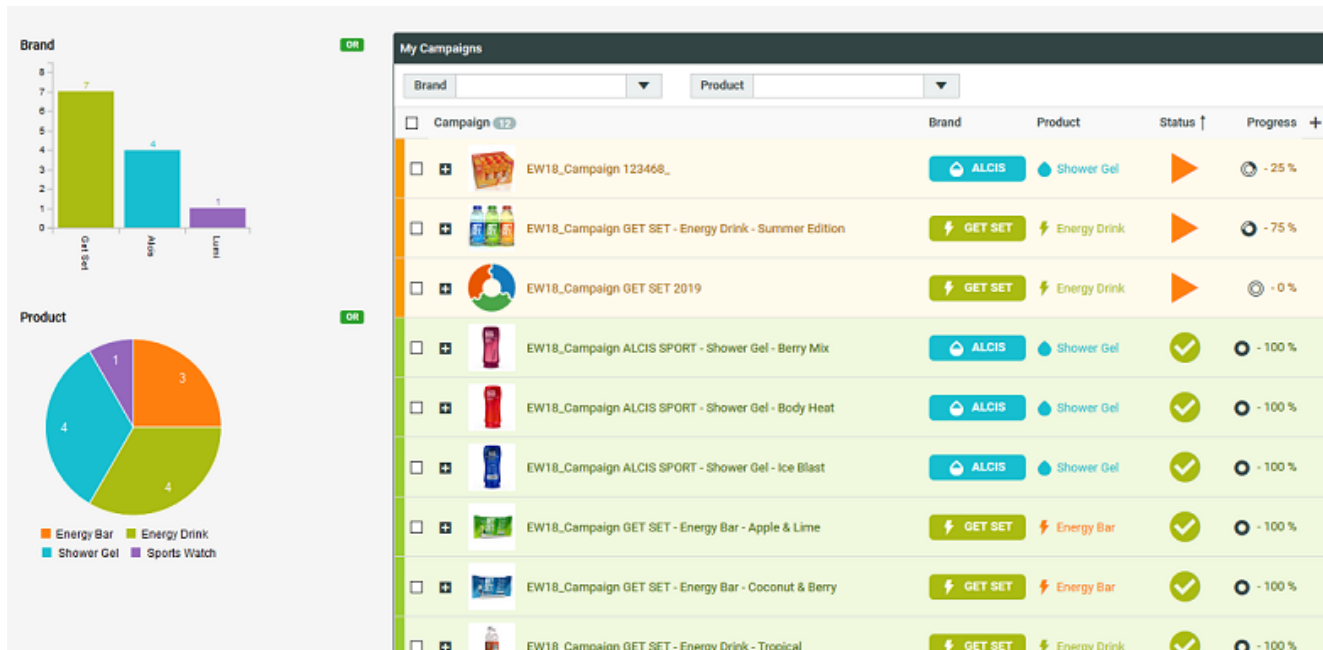


**Note:** It is possible to use a SmartName based Search. However, make sure that these SmartNames are resolvable to prevent an empty **image spinner** block.

- **Horizontal & Vertical resolution of the images:** Specify a resolution value for the image. The value can range from 1 pixel to 5000 pixels.
- **Scale image to width of block** (Default option): When this option is on, the images are always completely visible. If the option is off, the images are shown according to their size.
- **Seconds:** Specify the duration of display for each image in seconds in this field.

### 3.7.14. Search Results Formatting

Search Result Formatting framework makes it simple to present result data in an attractive and clearly communicating form.



Admin users can setup **Search Results Formatting** by navigating from the Search setup page for Projects or Documents or Task and Approval Searches.

This opens a pop-up with two tabs, namely **Fields** and **Row/Card**. The default selected tab is **Fields**.

Choose the **Row/Card** to set up a styling rule in the Search results or you can set up the rules specific to each field by using the **Field** tab.

1. Select **Add Rule** to add a new rule to the field chosen with a defined condition.

This adds a row to the table and allows selecting:

- A Condition
- An Operator
- A Value
- A Style
- Apply to Fields (only for Fields tab)

The first three columns determine when the rule for styling should be applied.

Rules created can be reordered by drag and drop and the order determines the required sequence.

2. Select a field based on which you want to create the rule for styling from the **Condition** drop down. The list displayed may vary based on whether it is a **Project or Task and Approval** or **Document** Search.



Document search will have fields related to Document Information like **Approval Completion Date, Document Name, Description, Last version Comments** along with Document Attributes, Project Information related fields, Roles and so on.

3. Based on the field chosen for the **Condition**, relevant operators are available in the **Operator** drop down. For example if any date related field is chosen for Condition, then the operator will have options like Is after, Is empty, Is Before and so on.
4. Again based on the operator used, only the relevant fields are shown. If the Condition field is a date and if the operator chosen is **Is after**, then the relevant date fields are shown in the drop down with an offset option.
5. In the Style field, you can either **Create New Style** or Import an existing style with the saved searches. If you want to create a new style, click on **Create New Style** to open the pop up window. Styles can also be *imported* from another saved search for consistency and efficiency.

You can edit an existing style by clicking on the edit icon and click **OK** to make the changes to the same style or you can **Save as New Style**.

Create New Style
✕

Style Name \*

**Colors**

Background Color  ■

Use Background Color Label

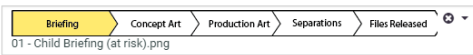
Text Color  ■

Border Style

**Content**


Display Style

Fixed Text   
Tip: This text will be displayed instead of the actual field value. Leave empty to show the actual value.

Icon  ■

01 - Child Briefing (at risk).png

**Preview**



Cancel OK

6. Choose the field from the drop down for which you want to set up a **Style** chosen or created in the **Apply to Fields**. You can choose more than one field per row or can create multiple rows for different conditions or operators.
  7. For the Row/Card, follow the steps from 1 to 5 to set up a style for the search results.
- Styles thus created are available per saved search.


### Create New Style

You can create new styles to apply it on either selected fields or the complete row in the search results. Click on **Create New Style** to open a pop up window.


Create New Style
✕

Style Name <sup>\*</sup>


**Colors**

Background Color  

Use Background Color Label

Text Color  


Border Style


Border Color  

**Content**

Display Style

Fixed Text   
Tip: This text will be displayed instead of the actual field value. Leave empty to show the actual value.


Icon  

Icon Color  

Tip: A glyph icon without a specific color will follow the text color by default.

Icon Size

**Preview**



1. **Style Name** is a required field by default. You can provide a unique name to the style you are creating.
2. Select the background color for the style from the color picker tool.
3. Select **Use Background Color Label** in the check box to use a background color only for the label. This option is only available for field styles.
4. Choose a text color for the style from the color picker tool.
5. You can either choose **No border** or **Right** or **Left border** for the field or the rows of search results.
6. Specify whether you want to have **Both Icon and Value** or **Only Icon** or **Only Value** to be displayed for the fields in the search result. If you choose any of the icon options then another drop down is displayed with the available icons. When an icon is chosen, you get additional options to choose the color and the Icon Size also. In case you choose **Value Only** or **Icon and Value** option, you get an additional field for entering a **Fixed Text** which will be displayed in the field.

### Import Styles

You can select the **Import Styles** to reuse any existing style in the saved searches.

Import Styles
✕

---

Saved Search

DEKE\_Demo\_Duration\_nographs
▼

Styles to Import

Select Style
▼

Import All Styles

<1 day

<10

<15

<20

<5

>3 days

>4 days

0-3 days

1-2 days

2-4 days

long

on time

1. On selecting this option, you get a drop down of all the available saved searches with styles. Choose the saved search which has the requisite style.
2. You will get an additional drop down to choose from all the styles already created in this **Saved Search**. Styles available for field is displayed when you choose this option in the **Fields** tab and styles available for rows are displayed when you choose this option in the **Row/ Card** tab.

### 3.7.15. Setting Up Project Operations in Saved Searches

## Updating Due date, Manager or Status

The Project Manager, Due date and Project status properties can be modified from Project search results or a saved Project search results.



**Note:**

All actions are restricted to current permissions on the individual projects involved.

**Search For Projects**

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

		Search Results Options				Search	
		View(List)	Column	Order	Editable	Sort	Order
<input checked="" type="checkbox"/> Use Advanced Search Characters	<input type="checkbox"/> Search Panel Design						
Project Name:	<input type="text"/>	<input checked="" type="checkbox"/>	1		<input checked="" type="checkbox"/>	1	
Description:	<input type="text"/>	<input checked="" type="checkbox"/>	2		<input type="checkbox"/>		
Project Status:	<input type="text" value="Show All"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>		
Created:	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Modified:	<input type="text"/>	<input checked="" type="checkbox"/>	3		<input type="checkbox"/>		
Due:	<input type="text"/>	<input checked="" type="checkbox"/>	4		<input checked="" type="checkbox"/>		
Customer/Location:	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Salesperson:	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Project Manager:	<input type="text" value="User"/> <input type="radio"/> User <input type="radio"/> Group <input type="radio"/> Me <input type="text"/>	<input checked="" type="checkbox"/>	5		<input checked="" type="checkbox"/>		
Manager's location:	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
<b>Add Role Search Criterion</b>							
<input type="radio"/> TEMA_DESIGN	<input checked="" type="radio"/> User <input type="radio"/> Group <input type="radio"/> Me <input type="text"/>	<input checked="" type="checkbox"/>	6		<input checked="" type="checkbox"/>		
<b>Attributes...:</b>							
<b>Characteristics...:</b>							
Bill of Materials:	<input type="text" value="Show All"/>	<input type="checkbox"/>			<input type="checkbox"/>		

[Clear this form](#)  
[Save this search](#)  
[Show Result Layout Options](#)

1. In the main menu, go to **Search > Projects**.
2. Type the parameters you would like to use to filter the search results.
3. Enable the **Editable** check-boxes for **Project Status**, **Due** and/or **Project Manager**.


Use the **Editable** column to enable bulk operations on projects. You can modify the following parameters of several projects at once:

- **Due date**
- **Project Manager**
- **Project Status**
- **Attribute Category or Project members/permissions**
- **Project Role assignments**




The bulk operations can be done from the **Search Results** page or from **Saved Search Results** page.



**Note:** These bulk operations are always limited to current permissions on the projects involved.

When you enable the **Editable** items, you get an Edit  button next to the selected items in the **View** List.

4. Now **Save** the **Search** or click **Search**.

Due Date 	Manager 	TEMA_DESIGN 
--	---	---



**Note:** For each **Editable** item, a corresponding option will be created in the table actions bar.

### Updating Attribute Category or Project Member / Permissions

You can setup Project **Search Results** to allow bulk updating of:

- the Project Attribute Category
  - Project Members
  - Project Permissions
1. In the main menu, go to **Search > Projects**.
  2. Type the parameters you would like to use to filter the search results.
  3. Click **Show Result Layout Options** to see advanced search options.
  4. Enable **Allow Changing Attribute Category** and / or **Allow Changing Project Members**.
  5. Now **Save** the **Search** as **Global**.

### Updating Roles

1. In the main menu, go to **Search > Projects**.
2. Type the parameters you would like to use to filter the search results.
3. Add one or more Role Search Criteria by clicking the **Add Role Search Criterion** link.
4. Enable the **Editable** check-boxes for **the role or roles that you want to make editable**.
5. Save the **Search** as **Global**.

### Detach Child Projects

You can configure **Detach Child Project(s)** operation in a Saved Search. Program Managers can use this in a contextual Saved Search configured in the Parent Project's details. The use case is that the Project or Program Manager can select existing Child Projects displayed in the search tab and detach them from the Parent Project.



**Note:** The action is only available to the users with **Change Permissions** of the parent and child project.

- Create a global [Saved Search](#) to search on child Projects. Enable the **Search Result Layout** option **Allow Detaching Child Projects**.
- Apply the Saved Search into the Project Details menu of the Parent Project Manager.
- To detach child Projects, go to the Child Projects tab with the saved search, select child Projects and click **Detach Child Project(s)**.

### 3.8. Inline Editing

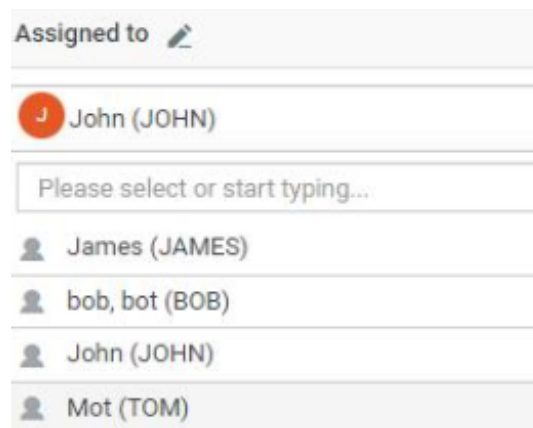
---

Inline Editing allows you to directly edit a Project or a Document or a Task in **Search Results** page or **Dashboards** for editable fields. Editable fields have a pencil icon next to it on hover, indicating that it is possible to edit that field.

When a field in Search or in Dashboard is set as editable and if you have the necessary rights, you can edit the field. The changes are applied to the corresponding Project, Document, or Task.

List of editable Fields in **Search Results** page or in **Dashboards** for Project, Documents and Tasks can be checked [here](#).
















For example, to re-assign a task in your Search Result page, there is no need to go to the **Task execution** page to change the assignee and go back to your search, you can just directly edit it.



#### Conditional Formatting for Editable fields

You can edit a field inline in **Search Results** page or in the **Dashboard** which has some conditional formatting set. If the field is a Restricted set or Project Status or Task status or a dropdown that is connected to a list, the values in the drop down are shown with the conditional formatting applied on it.

For example, there is conditional formatting set to show the values as progress bar.

<input checked="" type="checkbox"/> 0 <span style="margin-left: 20px;">Delete</span> <span style="margin-left: 20px;">Change Project Manager</span> <span style="margin-left: 20px;">Change Project Status</span> <span style="margin-left: 20px;">Assign Role (DESIGNER)</span> <span style="margin-left: 20px;">Set Attribute (Packaging Type)</span>						
Project Name	Status	Project Manager	Salesperson	Packaging Type	Briefing Text	Briefin
 Label Project 001 test	 Demo - Concept Art - on time	 Penninck (JEPE)	 abot (ABOT_TODELETE1)	 Box	We need a label for our <b>big</b> box to put candy inside! - the team	<input type="checkbox"/>
 Label Project 002	 Demo - Concept Art - at risk	 Penninck (JEPE)	 Penninck (JEPE)	 Can	Hello there, we need a new can label design.	<input type="checkbox"/>
 Label Project 003 renamed	 Demo - Production Art - on time	 Penninck (JEPE)		 Box	We may need another <u>box label for this Project.</u>	<input type="checkbox"/>

**Live Preview**

Preview of any editing done to is shown both for editable and non-editable information. When editing a value, preview of changes is shown in all the instances of the field within the same Dashboard and across all locations in WebCenter.

For example, when the Project status is edited in a list, all other instances of project status (of the same project) is also updated simultaneously in the Dashboard.

Similarly, when a Project name is changed, then it has a cascading effect on the child projects or parents' projects. The same applies to Document Name changes, where the change is also affected across all versions of the document and wherever the document may reside like a Document reference or a Task.

When the Conditional formatting rules are edited, the changes are visible in the Dashboard simultaneously. This could be helpful for Project status and Task Status based Dashboards.

Some of the fields where the live preview do not reflect immediately are

- Project Calendar or Project or Task Approval due date which reflects in milestones
- Auto naming of the Project or Document
- Rules triggered based on events

**Rich Text fields**

What is Rich Text ?

Rich text is text that is formatted with common formatting options, such as bold and italics, that are unavailable with plain text.

Rich Text fields are also editable inline. Select the text in a rich text field to open the rich text panel.



### 3.8.1. Configuring Editable Fields

#### Configuration of Editable Fields in Search Results

To make a field editable, enable the editable option in the **Search Results Options** for a Search. Editable fields for Projects or Documents or Tasks and Approvals varies as per the context.

Search Panel Design	Enable SmartNames	Label	Visibility	Row	Column	View	Column Order	Editable	Sort	Order
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Project Name	Visible	1	1	Visible	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1
		Description	Visible	1	2	Visible	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Project Status	Visible	1	3	Visible	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

#### Configuration of Editable Fields and Required fields in Dashboard

When you configure any type of Dashboard ( Project, Task or Document), in the Configuration panel, select the **Editable** option.

Configuration

Project Information Field

Description

Custom label

Editable

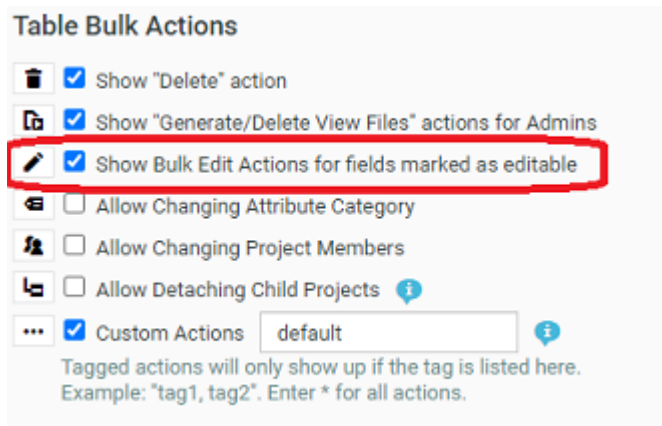
#### Enabling Mandatory fields in the Dashboard forms

You can select **Required** option to make the dashboard block as a mandatory field. On save, the fields that are marked as mandatory but not filled in are highlighted along with an error message.

#### Configuration of Bulk Editing

Admin user has to select the **Show Bulk Edit Actions for fields marked as Editable** option in the Table Bulk Actions in **Search Result Layout Options**.





**Note:** Pencil icon in the header to bulk edit is available for whichever field has been chosen as Editable irrespective of the above option selection.

### 3.8.2. Inline and Form Editing for Projects, Tasks and Documents

#### Inline Editing in Projects

Project fields that are editable are **Project Name, Description, Attributes, Role, Due, Sales Person, Project Manager, Project Status.**

#### Inline Editing in Documents

Document fields that are editable are **Document Name, Description, and Attributes.**

**Note:** Editing Attributes in both Projects and Documents has two preconditions. Firstly the user must have the editing permission for the Attribute values and the Attributes should be present in the Attribute Category of the Project or Document respectively. Document References are editable in Edit form Dashboards only.

#### Inline Editing in Tasks

Task fields that are enabled for inline editing in Dashboard and Search Results are **Name, Description, Due, Task Estimated, Task Status, Task Specifications, Assigned to** (not applicable for Approvals and only to Project members with permissions), **Documents** (in Edit form Dashboards only).

**Note:** Specifications are only editable, if they are in the Task Type of the Task and if the user has the right to edit the specification values.

### 3.8.3. Shortcuts in Inline Editing

Inline editing can be performed by using shortcut keys easily. Click on the first field that you want to edit and after that you can continue editing using only the keyboard.

When you are not inline editing and the mouse points to one of the things you could potentially edit, you can use the following:

- **Arrow Key Right:** To navigate to the next inline editing input in the same Dashboard or same Search results row.
- **Arrow Key Left:** Navigate back to the previous inline editing input in the same Sashboard or Search results row.
- **Arrow Key Down:** For list layout, cursor moves to the next inline editing input in the same column (inside the same table) and for non-list layout (Grid layout, dashboard...), does the same as Arrow Key Right.
- **Arrow Key Up:** For list layout, cursor moves to the previous inline editing input in the same column (inside the same table) and for non-list layout, does the same as arrow key left.
- **ENTER:** Enter inline editing mode for the selected field.

While you are actually inline editing, you can use :

- **Tab :** To **Save** and go to the next input
- **Enter:** Save and do the same as Arrow Key Down afterward and **Ctrl+Enter** Only for multiline fields (Description, Rich text attributes)
- **Escape:** Cancel and keep the focus on the current item.

When you are in a dropdown:

- **Arrow Key Down :** Go to the next element in the dropdown.
- **Arrow Key Up:** Go to the previous element in the dropdown.
- **Enter:** Select the element and close the dropdown if only one value can be selected for this field.
- **Escape:** Close the dropdown.



**Note:** Tab is a general shortcut in browsers, that is used in **Search Results** or **Dashboard** page to go to the next input or link.

### 3.8.4. Scripting with forms

In places where inline document actions are configurable, a **Run Script** action is available.

Next to the standard configuration options, you can enter a script that will be run when clicking the button. Click **Edit Script** to open the editor in which you can add a script. The script editor marks any syntax error that may be present and has auto completion enabled to make suggestions on which methods are defined.

#### Scripts in forms

Next to scripts which can be executed with inline action buttons, admins can also write scripts to be executed before the form is submitted. These scripts are configured per dashboard block. Following types of scripts are available:

- **Before Validation** scripts are executed first, when saving the form. The scripts can read and adapt values of the Project, Document or Task. They are allowed to use setters (e.g. `project.setName()`) in order to auto fill some fields.
- **Validation** scripts are executed after the Before Validation scripts and can be used to validate if all fields are filled out correctly (e.g. check that all dimensions are > 0 ). In Validation scripts it is **not** possible to adapt values. Validation scripts keep running until the form is valid and submitted or the user clicks away the validation error message.

To show a validation message (and block form submission), you can call the method `API.addValidationError()`. It is not needed to remove validation errors; before every script run all errors are removed.

- **On Change** scripts are executed when the user modifies a field to which an On Change script is linked. The field to which an On Change script is applied should be editable and be part of a dashboard that is in either Edit or Creation form. The scripts can read and adapt values of the Project, Document or Task. It can be used to autofill or update some information based on the user input.
- **Visibility** scripts are run continuously and determine the visibility of the block. The scripts are configured per dashboard block. Only one visibility script is allowed per block. It is not allowed to use setters to adapt values.

Every Visibility script should return one of the following constants, depending on the type of block:

- Project/Task/Document information blocks:
  - HIDDEN: the block is hidden
  - READONLY: the block is visible, but not editable
  - VISIBLE: the block is visible, but not editable
  - EDITABLE: the block can be edited, but is not required
  - REQUIRED: the block is made editable and requires a value before submission is allowed
- Other blocks:
  - VISIBLE: the block is visible, but not editable
  - HIDDEN: the block is hidden



**Note:** Using a Visibility script overrides any configuration done by the **editable** and **required** checkboxes in the configuration panel. Blocks that are made hidden by a Visibility script will no longer be required or execute their validation scripts. Furthermore, the constants VISIBLE and READONLY have the same effect, but can not be used interchangeably. To know which constant to use, please refer to the comments in the example script that is generated when creating the script.

- **Scripting Buttons:** Inline action **Run Script** buttons are available for documents. These scripts can read and adapt values of the document.



**Note:** Check [this](#) page on how to call external systems.

Note that validation scripts – or any script for that matter – can use the function `API.translate(...)` to translate a message before passing it to the `addValidationError` function.

For more information, please check [Additional info about the scripting API](#) on page 277.

## Additional info about the scripting API

### Sandbox

The scripts are run in a sandbox. Only a limited set of standard JavaScript functionality is available. Most global objects are not available. Available global objects are:

- Date
- Math
- JSON
- NaN
- isNaN

- Infinity
- isFinite
- parseFloat
- parseInt
- Error
- console (log, warn and info)

It is currently not possible to access/modify the DOM (e.g. window, document, jQuery, alert, confirm, ...). These globals will never become available but for all use cases we will try to provide alternatives through the API itself.

External systems can be contacted using the External API Connection functionality (API.doExternalCall(...)).

It is not possible (and never needed) to write asynchronous code, all methods of the API are synchronous.

### Why is the sandbox so strict?

We know the sandbox is quite strict. This is intentional.

WebCenter will compile the scripts so they are run as optimal as possible. This means that behind the scenes all scripts run in parallel even if WebCenter actually guarantees sequential execution order (see 'Script Execution Order' below). Also scripts are run asynchronous even though the API looks synchronous. There is a strong cache and WebCenter does batched requests to the server in case information is missing. These optimisations can go quite far but you should never notice this. For all practical purposes, just think of the API as synchronous and that all scripts are always run in a specific sequential order one after another, because that is what you will actually see.

The strictness of the sandbox allows us to do these advanced optimisations behind the scenes without you noticing. It also allows us to keep the API as simple as possible (synchronous) and also allows us to guarantee that all scripts will keep working when upgrading WebCenter.

### Debugging

It is possible to write logs to the console with console.log(). You can debug your scripts by adding a *debugger;* statement at the line where you want to debug. If you have the browser's developer tools open and the script hits a *debugger;* statement, the browser will break code execution and allow you to investigate variable values and step through your code.

It is important to **remove all *debugger;* statements** when the script is used in production. If a script has a *debugger;* statement, WebCenter will disable all optimisations on the script to make debugging easier. Because optimisations are disabled this means that just having a *debugger;* statement will cause performance to decrease considerably.

### Script execution order

We can divide scripts in two groups: scripts that can adapt values, e.g. Scripting Buttons, Before Validation scripts and On Change scripts and scripts that can only read what is on the page, e.g. Validation scripts and Visibility scripts (see [Scripting with forms](#) on page 276).

#### Scripts that can adapt values

For scripts that can do changes, WebCenter has a strong guarantee that scripts always produce results as if they are run sequentially one after one.

Example: Scripting buttons are executed when you click them. If you click another button immediately after clicking the first one we guarantee that the second button sees all the changes done by the first button when it is run (even in the rare situation when the first button would actually take a while to

run and didn't finish yet). If the second button needs to wait because the first button is still running, a "Processing..." message will be shown.

Just like Scripting Buttons, Before Validation scripts and On Change scripts can also make changes and are run in a strict sequential order. The next script in this order will see all the changes of the previous script, and so on. Additionally, the first Before Validation script is guaranteed to see all changes done by previously clicked buttons and all changes previously done by the user.

For Before Validation scripts in particular, the order is as follows: we always start from the top-most dashboard in the form. In that dashboard different information blocks might have Before Validation scripts attached to them. These Before Validation scripts are executed in the strict order you get by sorting alphabetically on the name of the script. If script execution order is important to you, you can control the order that scripts are executed by changing their name with some alphabetic prefix. Note that you don't need to have unique names for scripts, even scripts with the same name are run in a consistent order which doesn't change unless you completely delete/re-add blocks in the dashboard. However, before the scripts on the blocks in the dashboard are run, the scripts of all subdashboards (re-usable dashboard, open popup button, tabs) are executed. Scripts in subdashboards are always executed before the scripts in the current dashboard. Different subdashboards/tabs are executed in the strict order you get by sorting the name of the dashboard alphabetically. Subdashboards are executed one by one, so first all scripts of e.g. "DashboardExample\_TabA" execute, then all scripts of e.g. "DashboardExample\_TabB".

If needed you can control the execution of different subdashboards by changing their name.

When saving the page, the page will wait for all Scripting Buttons, Before Validation scripts and Validation scripts to finish executing before the form is submitted.

#### **Scripts that can only read what is on the page**

For scripts that can only read what is on the page, execution order does not matter as you cannot see the difference.

Example: Validation scripts are reexecuted all the time to provide up to date validation messages. The first time they run after clicking Save they do however only start after all the Before Validation scripts have finished executing so they are guaranteed to see the latest results when doing the initial validation.

#### **Autocomplete**

The Script Editor provides autocomplete suggestion based on the context you are in (Project/Document/Task Dashboard) and the code you are writing. All methods are accessible from the global object API.

## **3.9. Managing Companies**

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Entering Company and Location information lets you further refine projects and users when they are created.

#### **System History Logs**

All Companies related events like

- **Companies Created**
- **Companies Deleted** and
- **Companies Changed**

are recorded and stored in System History. Read this page on how to access the [records](#)

### 3.9.1. Create a New Company

1. Click **Admin > Companies > New Company**.
2. Enter the information about the new company (**Company Short Name, Company Legal Name, Phone...**).

Fields with asterisks next to them are required to have information in them.

3. Do you want the users of this company to see custom menus instead of the default WebCenter menus?

Custom menus allow you for example to simplify the user interface, so the users only see the menus they need to use. See [Menus](#) on page 107.



**Note:** Users linked to a company will always see the menu assigned to the company, when the **Default** menu is assigned to them as a user.

- If yes, choose the menu to assign to the company in **Menu**.
- If no, leave **Default** in **Menu**.

4. Click **Create**.

A status message saying the company was created successfully appears at the bottom of the page. You can create an additional company by filling out the form again and pressing **Create**.

### 3.9.2. Edit a Company

1. Click **Admin > Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies.
3. Click the name of the company to change.  
This opens the **Edit Company** page.
4. In the **Name and Menu** tab, you can change:
  - the **Company Short Name**,
  - the **Company Legal Name**,
  - the **Menu** that the users of this company will see (see [Menus](#) on page 107 for information about menus).

Click **Save** to save your changes before switching to another tab.

5. In the **Locations** tab, you can edit the company's location(s):
  - click a location to edit its details (**Location Name, City, Country...**),
  - to delete a location, select it and click **Delete Location(s)** in the actions menu,
  - to add a location, click the **New Location** link and fill in the new location's details.
6. In the **My Work Setup** tab, you can change what the company users will see on their **My Work** page. Click on **Setup Custom My Work** to customize the **My Work** page displayed for the selected company's users. Else the default My Work page is displayed for the users.

Read more on how to set up **My Work** page for Companies here [Set up My Work page](#) on page 282.

### 3.9.3. Merge Companies

You can merge two or more companies using the **Merge Companies** option in **Admin > Companies**.

1. Select the source company / companies which has to be merged.
2. Choose the **Merge Companies** field, to open the **Merge Selected Companies** pop-up window.
3. Choose the target the company from the **Merge to Company** drop down.  
A warning message will be displayed when the source company / companies has one or more locations in common with the target Company. The source company locations will be renamed to <location\_name>\_<company\_legal\_name>.
4. Click **OK** to merge the companies.

### 3.9.4. Delete a Company

If the company you delete has users assigned to any of its locations, WebCenter issues a dependencies warning.

You must reassign the users to another location or delete the users before you can delete the company. There is no dependency check if there are no users assigned to any location.

If the company is only assigned as a customer, it will be deleted when you confirm the deletion.



**Note:** Attempting to delete multiple companies will stop on the first company that has dependencies. To delete the rest of the companies, reselect them and delete them.

1. Click **Admin > Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies.
3. Select the checkbox of the company to delete.
4. Click **Delete Company** in the actions menu.
5. Click **OK** to confirm the deletion. The company is deleted.

### 3.9.5. Add Locations New

Context for the current task

1. Click **Admin > Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies.
3. Click the name of the company for which you want to add a location.
4. Click the **Locations** tab. The current locations for the company are displayed.
5. Click **New Location** at right.
6. Enter the appropriate information and click **Add Location**. The new location is created.

All Location related events like

- **Location created**

- **Location merged**
- **Location deleted** and
- **Location changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### 3.9.6. Edit a Location

1. Click **Admin > Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies. Click the name of the company for which you want to edit a location.
3. Click **Locations** on the menu. The current locations are displayed.  
In the location list, you can merge the two or more locations of the same company. Read how to [Merge Locations](#) on page 282 here.
4. Click the name of the location to edit.
5. Change the information as desired and click **Change**. The information is changed and a confirmation message appears.

### 3.9.7. Merge Locations

You can merge two or more locations of a company using the **Merge Locations** option.

1. Navigate to **Locations** tab in Company details page, to view the locations of a company.
2. In the location list, select the source location(s) that you want to merge.
3. Choose **Merge Locations** to merge the selected location(s) to a target location.
4. In the **Merge Selected Locations** pop up window, choose the target location from the **Merge to Location** drop down and select **OK** to merge.

### 3.9.8. Set up My Work page

Admin users can set up customized **My Work** page for all users in a company.

1. Navigate to **Companies** and select the company for which you want to set up **My Work** page.
2. In the company details page, open **My Work Setup** tab.
3. Click on **Setup My work** to open the **My Work** page in edit mode. If it is al
4. Follow the steps given here [Edit the Default My Work Page](#) on page 128 and **Save**.

### 3.9.9. Delete a Location

If the location you delete still has users assigned to it, WebCenter issues a dependencies warning. You must reassign the users to another location or delete the users before you can delete the location.

Attempting to delete multiple locations will stop on the first location that has dependencies. To delete the rest of the locations, reselect them and delete them.

1. Click **Admin > Companies**.



2. Either type in a **Filter** or click **Go** to see the list of companies. Click the name of the company for which you want to edit a location.
3. Click **Locations** on the menu. The current locations are displayed.
4. Select the location(s) to delete by selecting the checkbox next to the name.
5. Click **Delete Location(s)** in the actions menu.
6. Click **OK** to confirm the deletion.

## 3.10. Managing Users

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### 3.10.1. Licensing and Users

WebCenter supports two types of licensing models. You can have counted licenses in the [Named User License Model](#) on page 285 or [Concurrent License Model](#) on page 283 where you can have licenses that are taken up during a log-in sessions.

#### Concurrent License Model

In this model, you can create as many users as you want. The number of users who may use the system at the same time is determined by your **Concurrent Licenses**. The licensing model distinguishes between three types of users: guaranteed users, concurrent users, and editor users.

#### Types of Users in Concurrent License Model

##### Guaranteed users

A guaranteed user can always access WebCenter, regardless of how many concurrent users are logged on at the time.

##### Concurrent users

Any other user who does not have guaranteed access can log on to WebCenter as long as the maximum number of concurrent users is not exceeded.

You can assign guaranteed sessions to users, even without having the **WebCenter Integration User licenses** and all guaranteed sessions are taken from the pool of concurrent licenses.

**Note:**

For every three guaranteed users you create, one concurrent user license is blocked permanently.

For example, if you have 25 concurrent licenses for 100 non-guaranteed (concurrent) users, 25 concurrent users can log in at any time.

If you give 25 users guaranteed access, these users will take up 8 concurrent licenses. This means that only 17 concurrent users (out of 100) can log in simultaneously, because 8 concurrent licenses would be permanently blocked by those 25 guaranteed users ( $25 \times 0.333 = 8.333$ ).

##### Editor users

These are ArtiosCAD Enterprise users. They have guaranteed access but do not take away concurrent licenses.

You will have a fixed number of editor users, determined by the license you have purchased. When that number is reached, you cannot set more users to be editor users.

Generally, your system will either have guaranteed and concurrent users, or editor users.

If you have editor and concurrent users, and all your concurrent access licenses are in use, a concurrent user will not be able to access WebCenter, even if you have editor licenses left (a concurrent user cannot use an editor license to log in).

### Integration Sessions

For your integration sessions (e.g. for the SDK or Automation Engine), you can allow **Multiple Open Sessions** (for SDK or Automation Engine) for a User.

Each of your workflow connections connected through tunnel clients will block one integration session license.

When all the Integration Licenses are utilized for integration sessions ( for SDK or Automation Engine), then the concurrent license pool is used to allow further integration sessions. In such a case, one concurrent license is blocked for every three integration sessions.

### Advance SSO

The Advanced Single SIGN ON is also a license for the concurrent license model. From WebCenter 18.1, license file received will have the Advanced SSO feature by default.

### Multiple Guaranteed Sessions

You can allow **multiple open sessions** (such as the SDK user or Automation Engine user) as guaranteed sessions for a User. However, every three such sessions will block a concurrent license reducing the number of available concurrent access.

### Workflow Connections

Your workflow connections connected through tunnel clients will block one concurrent license each.

### What if the user limit is exceeded?

When the limit of users with concurrent access is reached, no concurrent user may log in until another user logs out.

To prevent users from blocking access for others, there is a configurable time limit of 30 minutes of inactivity. After any users (guaranteed or not) have been inactive for that amount of time, they are logged out automatically, thereby allowing other users to log in.



**Note:** The Admin user can always log in, even if the user limit is reached.

### Check the Licensing Status

1. Click **Admin** and navigate to **Users**. To see the users who are currently logged in, click on the eye icon.

You can filter on the Active users or currently logged in users.

Users who simply close browser windows do not actually log off until their sessions expire due to inactivity (usually after 30 minutes). Users should always click **Log Off** when they are done using WebCenter.



**Note:** To forcibly log off a non-guaranteed user to make more concurrent licenses available, click **Log user off** next to that user’s licensing status. Use this with caution as it may result in data loss. It would be prudent to try contacting the user in question before using this command.

2. The Users page also shows this table, where the utilization of different licenses are detailed.

License Type	# Purchased	Reserved (Hide details)	Remaining
Concurrent Licenses	500	Total: 15 Guaranteed Access: 0/1 Guaranteed Sessions: 46/5045 Workflow Tunnels: 0/1	485
Editor/Named User Licenses	1	Total: 1 Guaranteed Access: 1/1	0
Integration Sessions	5000	Total: 5000 Guaranteed Sessions: 4999/5045 Workflow Tunnels: 1/1	0

- **Concurrent Users:** all users logged in currently apart from Guaranteed access users.
- **Editor Users:** the sum of Guaranteed Access (GA) users on the system.
- **Integration user sessions:** sum of all the reserved integration sessions and the number of workflow connections made.



**Note:** When the Guaranteed Access users and integration sessions and workflow connections licenses are exceeded then, they utilize concurrent licenses in a factor of three items using one concurrent license.

If the number of available licenses reaches a specific threshold, it is displayed in red to indicate the license pool is depleted. The following threshold is effective per license type:

- Concurrent Licenses: 5
- Editor Users: N/A
- Integration Sessions: N/A

If a license violation is effective, (no more free license to allow log in) a warning icon appears next to the appropriate license type and the **Remaining** count value are shown in the next column.

### Named User License Model

A **Named User License** is an exclusive licensure of rights assigned to a single software user. This License model lets you pay for the number of users you want to create in WebCenter. This means that the purchased number of licenses (per type of users) limit the number of users that can be created.

You can view the number of licenses per user type on the **Admin > Users** page.

## Types of Users (Named User Licensing Model)

### Regular Users

These are the users who use the non-admin pages of WebCenter. The **WebCenter Regular user limit** determines how many regular users can be created in the system.

### Project Creator

These are regular users but can also additionally create projects. They have no other rights on the project after creation. When the licenses of regular users are exhausted, the project creator licenses can be used for regular licenses.

#### Example:

When you have to create regular users and the number of Regular Users licenses has been used up, you can use the remaining Project Creator licenses for these extra users.

License Type 	# Purchased	Assigned	Remaining
Admin/Project Manager Users	250	86	164
Project Creator Users	300	Assigned to Project Creators: 116 Assigned to Regular Users: 81	103
Regular Users	100	 181	0
Integration Sessions	5	Sessions Assigned: 0 Workflow Tunnels: 0	5



**Note:** You can hover over the warning symbol to see the number of Project Creator Licenses used for Regular Users.

When there is no license for Regular Users, the licenses for Project Creator and Regular users are combined in the overview page.

### Admin or Project Manager Users

These are users who will function as Administrators or Project Managers. The **WebCenter Admin/PM user limit** (as per your license pack) determines the maximum number of Admin and Project Manager users in the system. When the licenses of Regular Users and/or Project Creators are exhausted, the Admin/Project Manager license can be used for these users.

### Integration Users

For your integration use cases (e.g. for the SDK or Automation Engine), you can allow Multiple Open Sessions for a user. The maximum allowed guaranteed sessions is determined by the WebCenter SDK session limit module.

Named users have guaranteed sessions and is determined by the **WebCenter SDK session limit** module. You can allow **Multiple Open Sessions** (for SDK or Automation Engine) for such a user.

The session limit licenses can be split over multiple users (without an upper limit), but the total number of guaranteed sessions cannot exceed the WebCenter SDK session limit.

Each of your workflow connections connected through tunnel clients will block one integration session license.



**Note:** There is an upper limit for the number of simultaneous sessions (maximum 5) for Admin / Project Managers and Regular Users.

**What if the user limit is exceeded?**

When adding more sessions to an Integration user, the system checks your session limit to see if this is feasible.

When the number of licenses available reaches a specific threshold, then it is indicated in red color. Threshold for concurrent users are fixed at five whereas for Editor Users or Integration sessions the threshold is not applicable.

You cannot create a new User of a Type when the limit has been reached. The limit also applies when you try to change a Regular User to Admin or Project Manager. You will get a **License Violation** error if the limit has been reached.



**Note:**

- Check the [Troubleshooting Tool](#) if you run into License limit related errors. This page has a License Check[WCR121\_TST\_700] test with more details about the current status.
- The System Administrator (ADMIN) can always login to verify and correct licensing issues.

**Check the Named User Licensing Status**

1. Click **Admin** to open the **Users** page. To see the users who are currently logged in, click on the eye icon. You can filter on the Active Users or the current users logged in.
2. **Users** page lists the number of **Purchased**, **Assigned** and **Remaining** license per user type. You can expand the **Assigned** column to view the details of the available licenses vs used at the moment.

License Type	# Purchased	Assigned <a href="#">(Hide Details)</a>	Remaining
Admin/Project Manager Users	1001	Total: 329	672
Project Creator/Regular Users	2500	Total: 358 <u>Assigned to Regular Users: 324/324</u> <u>Assigned to Project Creators: 34/34</u>	2142
Integration Sessions	503	Total: 146 <u>Guaranteed Sessions: 138/138</u> <u>Workflow Tunnels: 8/8</u>	357

- **Admin/Project Manager Users** (Assigned) is the number of Admin Users and Project Managers licenses utilized from the license type.
- **Project Creator Users/Regular Users** (Assigned) is the number of Project Creator Users and Regular Users licenses utilized from the license type.



**Note:** In case the Regular User licenses are exhausted, then Project Creator Users licenses are used instead.



**Note:** In case the Project Creator and/or Regular User licenses are exhausted, then Admin/Project Manager licenses are used instead.

- **Integration Sessions** (Assigned) is the sum of all the guaranteed sessions and workflow connections licenses utilized from the license type.

If the number of available licenses reaches a specific threshold, it is displayed in red to indicate the license pool is depleted. The following threshold is effective per license type:

- Admin/Project Manager Users: 1
- Project Creator Users and Regular Users: 10
- Integration Sessions: N/A

If a license violation is effective (no more free license to allow log in), appears next to the appropriate license type and the Remaining is shown in the Remaining column.

The following default users are not counted against the Purchased licenses.

1. ADMIN - the admin user, user with user name "ADMIN"
2. CADX user
3. CLEANUP user
4. WORKFLOW USER

### 3.10.2. Users, Groups and Roles

#### Basic concepts

Access to projects and documents is controlled by user and group permissions.

#### User

Everyone who logs in to WebCenter is a user. Users log in using a username and password assigned to them by an Administrator.

#### Group

A Group is a logical set of users connected by a common element of your choosing, such as function or location. You can assign tasks to groups, you can set up groups as approvers or even as project managers.

#### Role

A Role is a placeholder object that project managers can use in their projects or templates to set up approvals, assign tasks to, use in workflows, etc., without being forced to use specific users and groups just yet. Upon project creation, or even later in the process, the project manager can assign the role(s) to the actual user(s) and/or group(s). This provides more flexibility in setting up templates/projects.

#### Default users

One user, admin, and two groups, Admins and Users, are created by default in WebCenter. Members of the Admins group are WebCenter system administrators and can perform any function.

### 3.10.3. Create a User

1. Click **Admin > Users > New User**.

**Step 1: User Info** in the **Create New User** wizard appears.

2. Type the basic user information into the appropriate fields (**Username, First Name, Last Name...**).



**Note:** Required fields are indicated with an asterisk \*.

3. Do you want to use LDAP authentication (single sign-on) for this user?

- If yes, enable the **Use LDAP to Authenticate User** option. This will allow the user to use his regular Windows network user name and password to log on to WebCenter.
- If no, provide the user's initial **Password** and confirm it.

Enable the option **Require the user to change the password at first login** to force the user to choose a new password when they first log on to the system.

4. Do you want this user to see custom menus instead of the default WebCenter menus?

Custom menus allow you for example to simplify the user interface, so the users only see the menus they need to use. See [Menus](#) on page 107.

- If yes, choose the menu to assign to the user in **User Menu**.
- If no, leave **Default** in **User Menu**.

5. Does the user need guaranteed access?

- If yes, enable the option **User Has Guaranteed Access or is an ArtiosCAD Enterprise User**.



**Note:** You can also use this option to make editor users, if you license allows it (see [Licensing and Users](#) on page 283).

- If no, leave the option disabled and proceed to the next step.

For more information on guaranteed access and its licensing implications, see [Licensing and Users](#) on page 283.

6. Does the user need multiple open sessions with guaranteed access?

- If yes, enable the option **Allow Multiple Guaranteed Sessions**.



**Note:** You can allow multiple open sessions (such as the SDK user or Automation Engine user) as guaranteed sessions for a User. However, every three such sessions will block a concurrent license reducing the number of available concurrent access.(see [Licensing and Users](#) on page 283).

7. Does the user need special permissions in WebCenter?

If the user needs...	Select the option...
no special permissions	Normal User

If the user needs...	Select the option...
Project Manager permissions, but only for projects and users belonging to his or her own company	Project Manager with Limited Visibility of Companies and Groups
Project Manager permissions on the complete system	Project Manager with Full Visibility
Project Creator with permission on the complete system	Project Creator with Full Visibility
Project Creator permissions in restricted mode	Project Creator with Limited Visibility

8. Does the user need the ability to create new task types in WebCenter? (only if the user is a **Project Manager**)
  - If yes, enable the option **User Can Create Task Type**.
  - If no, leave the option disabled and proceed to the next step.
9. Does the user need the ability to create new users? (only if the user is a **Project Manager**)
  - If yes, enable the option **User Can Create User**, then click **Continue**.



**Note:** A Project Manager creating users will have less options than an Admin: for example he / she will not be able to give the new user LDAP (network) sign-on or guaranteed access.

- If no, click **Continue**.



**Tip:** You can keep track of users created by other users: the **Owner** column of the **Users** page shows who created each user.

10. In **Step 2: Assign to a Company**, optionally select a company to which you want to assign the user. Note that this can be very important to filter the content and users the new user will be able to see.
11. If you:
  - are creating a **Normal User** or a **Project Manager with Full Visibility**, the wizard is complete. Click **Finish** to create the user.
  - are creating a **Project Manager with Limited Visibility**, click **Continue** and proceed to the next step.
12. In **Step 3: Assign Visible Companies**, select the companies that this user should be able to see, then click **Continue**.

The selection you make here filters the list of users in the next step so that this Project Manager can never see users from the companies you did not select in this step. By default, only the company of the Project Manager himself (the one you selected in the previous step) will be selected.

13. In **Step 4: Assign Visible Groups**, select the groups the user should be able to see, then click **Finish**.



Only groups containing members that belong to one of the companies you assigned in the previous step will show up in the list. In addition, some groups may be set to be visible to all users (such as the ADMINS group).

### 3.10.4. Editing Users and their Preferences



#### Edit a User

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.

The **Profile** page appears.

3. Make the required changes:

To edit the user's...	You should...
<b>User info (including authentication details)</b>	edit the fields on the <b>Profile</b> Page. Read also <a href="#">Edit User Authentication Settings</a> on page 292.
<b>Menu</b>	choose a different menu in the <b>User Menu</b> list.
<b>User Type</b>	select the appropriate role from the options: <ul style="list-style-type: none"> <li>• <b>Normal User</b></li> <li>• <b>Project Creator</b></li> <li>• <b>Project Manager</b></li> </ul>
<b>Visibility</b>	Select the visibility for the user from the options: <ul style="list-style-type: none"> <li>• <b>Limited Visibility of Companies and Groups</b></li> <li>• <b>Full Visibility</b></li> </ul>
<b>Privileges</b>	Also specify if: <ul style="list-style-type: none"> <li>• <b>User Can create Task Type</b></li> <li>• <b>User Can Create User</b></li> <li>• <b>User Has Guaranteed Access or is an ArtiosCAD Enterprise User</b></li> </ul>
<b>Company or Location</b>	<ol style="list-style-type: none"> <li>1. Click the <b>Company/Location</b> link at the bottom of the <b>Profile</b> page.</li> <li>2. Select a new company and click <b>Finish</b>.</li> </ol>
<b>Visible Companies or Locations (only applies to Project Managers and</b>	<ol style="list-style-type: none"> <li>1. Click the <b>Visible Companies</b> or <b>Visible Locations</b> links.</li> <li>2. Make a selection of visible locations and/or companies and click <b>Finish</b>.</li> </ol>

To edit the user's...	You should...
<p><b>Project Creators with Limited Visibility)</b></p>	
<p><b>Allow Multiple Sessions</b></p> <p><i>The <a href="#">licensing and users overview</a> page will explicitly show the number of guaranteed sessions and the number of licenses blocked.</i></p>	<p>Enable this option to allow the user to login concurrently multiple times.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">  <b>Tip:</b> Use this if you have heavy SDK integration with simultaneous tasks. This is also useful if you have a lot of shared users (e.g. for an external company).         </div> <ul style="list-style-type: none"> <li>Specify the <b>Maximum Open Sessions</b> allowed for the user.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">  <b>Note:</b> This has an impact on your concurrent licenses. Every three such sessions take up one concurrent license. For example, if your integration user has 30 sessions, this will take up 10 concurrent licenses. Do not use this option for normal users.         </div> <p>The <b>admin</b> users have the same number of multiple sessions as any other user. You can change this by setting a different <b>Maximum Open Sessions</b>.</p>

4. Click **Change** to confirm.

### Edit User Authentication Settings

An Administrator or a Project manager with rights can manage the SSO authentication details at the user **profile** page.

Go to **Admin > Users**. Select the **User** and go to the **Profile** page.

Users   New User   Login Tracking   **Profile**   Preferences   My Work Setup   Groups   Download   Projects User is in   Delegation   History

### User Details

Username \*

First Name


Last Name \*

E-Mail \*

Phone Number

Mobile Number

Function

Picture 

### Authentication

Basic password authentication

New Password \*

Confirm New Password \*

Require the User to change the password at first login.

token

**Authentication:**

This section lists the available and disabled **authentication** types. You can allow / deny the User authenticating with any of the [Single Sign-On](#) Instances.

Read also [Single Sign-On Settings](#) on page 461.

**Link Authentication:**

To allow a User to authenticate via a link, configure [Token Authentication](#) on page 463 and allow this type of authentication in the User profile page.



**Note:** You need to disable all the other types of authentication to make the link authentication active.

Click **Mail Login Link** to send this link to the user.

Whenever the token-authenticated user receives a notification with a link, the link contains a token to authenticate without user credentials. This permits the users added to the approval cycle to log in using the approval links from the notification mails.

**Change the Password for a User**

1. Click **Admin**.

The Users page appears.

2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Password** tab.
4. Type a new **Password** and Confirm it.
5. Click **Change** to save the changes.

## Change a User's License Status

1. Click **Admin**.  
The Users page appears.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Select or deselect the **User has guaranteed access** option and click **Change**.



**Note:** Changing users' licensing is effective immediately.

Alternatively, to change many users' licensing status in a single operation:

1. Select the users on the User page.
2. In the actions menu, click **Grant Guaranteed Access** or **Remove Guaranteed Access** as desired.

## Set the Preferences for a User

1. Click **Admin**.  
The Users page appears.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Preferences** tab.
4. Configure the Preferences as needed. For more information on the settings and options, see [General Preferences](#) on page 91.

## Copy Preferences to Users

Use this to quickly copy previously defined preferences to one or several users.

1. Click **Admin**.  
The Users page appears.
2. Select the user(s) whose preferences you want to change and select **Apply Preferences** in the actions menu.
3. In the **Apply Preferences** popup, select the preferences to change, and deselect the preferences to keep.  
**Other Preferences** are the user preferences not mentioned above (for example: show thumbnails or not, search results layout, etc.).
4. Select who you want to copy the preferences from: in **Take Preferences From**, select another user, or select **Default** to use the default settings for the preferences you selected.
5. Click **OK**.

### Edit a User's Group Memberships

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.  
The **Profile** page appears.
3. Click the **Groups** tab.
4. To add the user to one or more groups, select those groups (use Ctrl+click to multiple-select) in the **Available Groups** list and click the **>>** button.
5. To remove the user from one or more groups, select those groups in the Current Groups list (use Ctrl+click to multiple-select) and click the **<<** button.

The changes are effective immediately.

### Set Available Download Formats for a User

1. Click **Admin**.  
The Users page appears.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Download** tab.
4. Select or deselect the download formats you want to enable.



**Note:** User permissions for download formats take precedence over group permissions for download formats.

5. Click **Change**.



**Note:**

Alternatively, you can click **Use Group Permissions** to make the user inherit the download formats from his or her group membership(s).

### 3.10.5. Deactivating Users

An administrator user or a project manager with create user rights user can deactivate users. You may want to use this feature when you no longer need a user in the system or when you are inviting an external collaborator to an approval cycle temporarily. You can also do this when you need to free up [named user licenses](#).

Deactivated users cannot log in, become project members or stay as task assignees. This means that you cannot start a task or an approval cycle that has a deactivated user as its assignee or approver respectively.

The deactivated users are still in the Users list with a clearly marked **Deactivated** label. This allows you to keep track of what they did or reactivate them if there is a need. Click Deactivate User(s) after selecting the users you may want to delete.



**Note:**

- A project manager with create user rights can only deactivate the users he created.
- The user deactivation and activation events are logged in the User Management History.
- Admin User or PM users with **Create User** rights can deactivate users in bulk in the **Users** overview page, by selecting the users and clicking **Deactivate user(s)**.

The deactivated users will not receive notification or overdue e-mails even if they are included among the expected recipients of a Notification message (for example, deactivated Project members).

### Deactivate Users

You can deactivate users either manually or automatically after a specified duration.

- To **deactivate** a user manually:

- Go to **Admin > Users > User > Profile** page.
- Disable the **Active User** option.

You will see a message warning you about pending approvals or tasks or if the user is currently logged in. To know more details about the pending work, click on the displayed message.

- Save.**

As soon as you save, the deactivation happens even if the user is logged in or has pending work.




**Note:** It is not possible to deactivate:

- the built-in users (ADMIN, CADX, WORKFLOW, CLEANUP) that don't take up any licenses.
- the currently logged in user.



**Warning:** The manually deactivated users can be reactivated only after 24 hours.

- To set up **automatic deactivation**,
  - Go to **Admin > Users > User > Profile** page.
  - Select from the following options and **save**.

Options	Description
<b>Deactivate after X working days</b>	Specify the number of working days from the current date.  You will see a message with the predicted date of deactivation.
<b>Deactivate at a specified date</b>	Pick a date using the date picker.   <b>Note:</b> You can only set this up for active users.
<b>No automatic deactivation</b>	The default option.

The automatic deactivation happens on the calculated/specified date after 23:59:59 server time.

- To create deactivated users, disable the **Active User** option in the user creation form. For example, you could create a deactivated user as a Template user.



**Tip:** You can create deactivated users with different deactivation dates as template users. Use these as template users to create different types of approver users (with varying deactivation periods).

## Reactivate Users

To reactivate users, use any of the two ways listed below.

- From the User Profile page, enable the **Active User** option.
- Select deactivated user(s) in the **Admin > Users** page and click the **Activate User(s)** action button.



**Warning:** The manually deactivated users can be reactivated only after 24 hours.

### 3.10.6. Delete a User

When deleting a user, WebCenter checks for dependencies, such as being a Project Manager or being an Approval User on an ongoing Approval Cycle, before deleting the user.

If there are dependencies, WebCenter asks you whether you want to view them (with links so you can remedy the dependencies) or cancel the deletion.



**Note:** Attempting to delete multiple users will stop on the first user that has dependencies. To delete the rest of the users, reselect them and delete them.

1. Click **Admin**.
2. Select the checkbox next to the name of the user to be deleted. To delete more than one user at a time, select additional checkboxes of users to delete.
3. Click **Delete User(s)** in the actions menu.
4. Click **OK** to confirm the deletion.
5. If there is a Delete Dependency confirmation, choose the desired option and click **OK**.

Users cannot be deleted until any dependency issues have been resolved.

### 3.10.7. Create and Invite a User from the Approval Page

Project Managers can create and invite users in the context of an approval page. This allows you (as a Project Manager) to add an external reviewer to the **Approval cycle**. If the user is not in the system, you can add a new user and invite him or her from the approval page. It is possible to create and add users from any approval page (document's, project's or folder's).



**Note:** These users will be created as Regular Users. The only exception is when an Administrator user creates a user using an Admin User as the **Approval User Template**.

If you have used up all your Regular User licenses, you will not be able to **Create and Invite User** from the approval page. Read about Named User License model in [Licensing and Users](#) on page 283.

- Click **Add Approver > Create and Invite New User**.

**User Info** in the **Create and Invite New User** wizard appears.

- Type the user's e-mail address. The fields (**Username**, **First Name** and **Last Name** will be filled in automatically from the e-mail address. You can change these fields, if necessary.
  - Username is filled with the part before @ of the e-mail address.
  - First Name is taken as the part before the last dot.
  - Last name is filled with all characters after the last dot (or all the characters before @ if no dots are present).
- Optionally, assign to a **Company** and **Location**. Note that this can be very important to filter the content and users the new user will be able to see.
- If you want the user to log in with a link sent from the approval page, follow the process below:
  - a) Set up a [Token](#) based single sign-on instance and keep it active.
  - b) Specify a User as **Approval User Template**. Also remember to allow [link authentication](#) in the user profile.

To allow a User to authenticate via a link, configure [Token Authentication](#) on page 463 and allow this type of authentication in the User profile page.



**Note:** You need to disable all the other types of authentication to make the link authentication active.

Whenever the token-authenticated user receives a notification with a link, the link contains a token to authenticate without user credentials. This permits the users added to the approval cycle to log in using the approval links from the notification mails.

- If your **default approval user template** has no [Token Authentication setup](#) or you have not defined a user as the **template**, you need to specify and confirm a password in the **Create and Invite User** wizard.
- If there are Roles as members of the Project (with view rights to the folder or document where the approval is being set up), it is mandatory to assign the user to a role. Select the **Role** in the **Assign to a Role** field.
- Click **Create and Invite User**.

A new user is created and invited to the Project. You will be able to see this user in the Approvers list as well as in the Users list.

- If you enabled link authentication, the user will log on to the system using a link from the notification e-mail. The user will be able to see and approve the document/folder or project.
- If you specified a password, the user would need to know the password to be able to log in.

### 3.10.8. Managing User Memberships in Projects

#### View a User's Project Memberships

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Projects User is in** tab.

The list of project for the user is displayed. You can filter the list of projects if needed, using the Show Projects, Manager Last Name, and Manager Group Name fields and the Modified list. Fill in the filter criteria and click Go.





**Note:** This does not show Projects for which the user is the Project Manager or those Projects in which the user is a member by means of belonging to an invited Group.

4. You may uninvite the user from any of the Projects shown in this list by selecting the Project(s), and clicking **Uninvite** in the actions menu. The user must not be an Approver in an active Approval Cycle.

### Invite a User to Multiple Projects

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Projects User is in** tab.
4. Click **Invite to Projects**.
5. Select the projects you want to invite the user to, and click **Continue**.
6. Select the permissions the user needs in the project and click **Finish**.

### Uninvite Users from Multiple Projects



**Note:** If the user is an Approver in an ongoing Approval Cycle in a selected Project, the entire removal action is canceled. You must stop the Approval Cycle and then perform the removal.

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Projects User is in** tab.

The list of project for the user is displayed. You can filter the list of projects if needed, using the Show Projects, Manager Last Name, and Manager Group Name fields and the Modified list. Fill in the filter criteria and click Go.

4. Select the Projects you want to uninvite the user from.
5. Click **Uninvite** in the actions menu.
6. Click **OK** to confirm.

## 3.10.9. Login Tracking

To get a simple overview of User Logins for a specified time period, click the **Admin > Users > Login Tracking** option.

- Specify the time units ( **Detail Overview** in **days / hours / weeks**).  
The overview table will display the time in the units you specified here.
- Select the **View** as **graph / table**.
- Select the time period by specifying the dates.
- Click **Search**.

You can use **Save to Excel** to export the login overview. You can view more details by clicking on Switch to **Advanced View**. Read in [Advanced Login Tracking](#) on page 300.

Read also [Failed Logins](#) on page 300 and [License Usage](#) on page 300

## Failed Logins

**Failed Logins** column gives the count of the number of login attempts that were denied because of insufficient licenses. This count is measured during the period you specified.

## License Usage

In the Login Tracking page, you can see the statistics regarding:

- used and free editor licenses
- used and free concurrent licenses

for the specified time period. You will see a warning next to the progress bar if there was at least one **Failed Login** due to shortage of licenses.

## Advanced Login Tracking

The advanced page shows a list of individual User sessions (or Failed login attempts) that were active during the specified time period.

To view the successful login details, select **Show Login Sessions**. You can view the failed logins by opting to **Show Failed Logins**.

Use the custom filtering to limit the information to what you are looking for. For successful **login sessions** you can filter on:

- **Single Sign-On Instance**
- **Login Method**
- **Logout Method**
- **User** : You can type the
  - User Name
  - First Name
  - Last Name
 of the target User.
- **Company**
- **Location**: Use this filter to view the login statistics associated with one Company and in a specific location



**Note:** To show the system user sessions (“SYSTEM” and “CADX”), enable the option **Show sessions from system users**. This option is turned off by default.

If you are viewing **Failed Logins**, you can filter on:

- **Single Sign-On Instance**
- **Login Method**
- **Login Failure Cause**
- **User** Type any of the following:
  - User Name
  - First Name
  - Last Name

To see login attempts from unregistered users, enable **Show anonymous login attempts**.



**Tip:**

Use **Sort by** to sort the table based on the selected column.  
 To export the table as a .XLS file, click **Export to Excel** link.

### 3.10.10. Delegation

Delegation is the assignment of responsibility or privileges to another user to complete his / her work.

For example, when a Project Manager (P1) has planned a personal time off and wants to delegate his user account to another Project Manger (P2). In this case, the P1 is the delegator and P2 acts as a delegate of P1. P2 can perform and manage the work on behalf of P1.

You can configure a delegate for a specified time period or permanently. Actions performed by the delegate P2 will be tracked in the respective project history.

Delegation can be done only to users who are in the same hierarchy or above. An admin user can delegate only to another admin user and not to a normal user. Potential Delegates as per the User Access Level are

User Access Level	Can delegate to
Admin User	Admin only
Project Manager (with Limited and full visibility )	Project Manager or Admin User
Normal User	Normal User or Project Manager or Admin User

#### Delegation Restrictions

To ensure that your user(s) delegate to a limited list of users, you can use the **Delegation Restrictions** either as a system wide settings [Delegation Preferences- System Wide](#) on page 100 or per user.

The Administrators can specify the user level setting which overrides the system wide settings in that case. Admin users can place restrictions on delegation for a specific user based on various factors like

- **System Default**
- **No Delegation** is possible if you choose this option. This prevents your users from delegating their work.
- **All Visible Users** allows to delegate any user who are visible in his or her list.
- **Only Users in the same** allows you to restrict the choice to delegate, within the same company or location or group.

For example, you can specify that delegation is restricted within the members of a Company. This would mean that you cannot pick a user who is not part of the same Company as your delegate.

- **Any of the following Users or Groups** allows you to choose the delegates from a group(s) or any users with the **Add** button.



**Note:** All the delegation restrictions are copied when the option **Delegation Restrictions** is selected in **Apply Preferences**.

#### Your user's Delegation

As an Admin user or as a Project Manager who has a set of users, you can view, create or modify the delegation setup of your users. To do that, use the **Users > Profile > Delegation** page.

When a user assigns a delegate, the delegate can perform all the work actions. The delegate has to log-in on behalf of the delegator, to perform the tasks, approvals and permission settings.

**Note:**

1. You cannot delegate a deactivated user's work or delegate to a deactivated user.
2. A user can be the delegate to more than one user but cannot be logged in as more than one delegate at the same time.
3. Delegation works only in one level. The work delegated to a user cannot be delegated to his delegates.

## Setting up Delegation for your Users

As an Admin user or as a Project Manager who has a set of users, you can view, create or modify the delegation setup of your users. To do that, use the **Users > Profile > Delegation** page.

1. If you are an owner of users, go to **My WebCenter > My Users > \*Name\* > Delegation** page. As an administrator, you can use the **Admin > Users > \*Name\* > Profile > Delegation** page.
2. To add one or more delegates for your user, select a user from the drop-down and click **Add Delegate**.
3. Optionally, if you are an admin and like to configure a specific restriction for a user or to add a custom list of users and group as potential delegates, you can edit the **Delegation Restrictions**. If you do not edit this field, the global [Delegation Restrictions](#) setting will apply.

You can revert to the global setting by selecting **System Default**.

The **My Delegates** section of your user will list the delegates authorized to act on his or her behalf. You can add new delegates here.

### Add Delegate

You can delegate your work to a specific user or users. Follow the steps below to add delegates.

1. To add one or more delegates, go to **My WebCenter > My Delegates**.
2. Select a user from the drop-down and click **Add Delegate**.  
To inform your colleague about the delegation, enable the **Notify new/modified delegates** option.
3. If this is a temporary delegation until your return to work, specify a **Start Date** and an **End Date**.  
There is also a comment field to leave your notes.  
If you leave the **End Date** empty, the colleague can act as your permanent delegate.

**My WebCenter > My Delegates** page lists all your delegates and the respective time periods for which the delegations remain active.



**Note:** You can modify the delegation fields or delete a delegate from **My WebCenter > My Delegates** page.

## 3.11. Managing Groups

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### 3.11.1. Create a New Group

1. Click **Admin > Groups > New Group**.
2. Enter the name of the group.
3. Choose who will be able to see this group: **All Project Managers**, **Administrators Only**, or **Selected Project Managers**.
4. Click **Continue**.
5. In **Step 2: Select Group Members**, select the members of the group by checking the checkboxes to the left of their names.
6. Is this new group visible to every Project Manager or only to Administrators:
  - If yes, click **Finish**. The group is created.
  - If no, click **Continue**. Then, in **Step 3: Assign group visibility to project manager(s)**, select the Project Managers that can see this group and click **Finish**.

Project Managers with Full Visibility are unavailable, as they can see all groups. By default, group members can see the group but you can still de-select the group members so that they don't know this group exists.

### 3.11.2. Add Users to a Group

1. Click **Admin > Groups**.
2. Click the name of the group to edit. Click **Add Users**.

When adding new members to a Group, you can filter on First Name, Last Name, User Name, Email of the User, Name or the legal name or the Company of the user or the Location of the User. You can add all active members in one go using **Select All Active Users** () option.



**Attention:** Members of the Admins group can perform any task and are not bound by any security restrictions and hence it is important to be cautious when adding users to groups. **Deactivated Users** can be activated and added to the group by the admin users.

The list of users who are currently not members of the group is displayed.

3. Select the user(s) to add to the group.
4. Click **Finish**.

### 3.11.3. Remove Users from a Group

1. Click **Admin > Groups**.

2. Click the group to edit.
3. Select the user(s) to remove from the group.
4. Click **Remove** in the actions menu.
5. Click **OK**.

### 3.11.4. Copy or Move Users Between Groups

1. Click **Admin > Groups**.
2. Click the group to edit.
3. Select the users to copy from the group.
4. In the actions menu, click:
  - **Copy users** if you want to copy users from one group to another.
  - **Move users** if you want to move users from one group to another.
5. Either filter or click Go to show the list of groups.
6. Select the new group(s) into which the users will be copied or moved.
7. Click **Finish**.

### 3.11.5. Rename a Group

1. Click **Admin > Groups**.
2. Click the group to edit.

The ADMINS and USERS groups cannot be renamed.
3. Enter the new name of the group in the **Group Name** field and click anywhere else on the page.
4. Click **OK**.

### 3.11.6. Change the Group Visibility

1. Click **Admin > Groups**.
2. Click the group to edit.
3. Click the **Visibility** tab.
4. Select the desired visibility choice: **All Project Managers/Creators**, **Administrators Only**, or **Selected Project Managers/Creators**.
5. Depending on your visibility choice, proceed as follows:
  - If you chose **Selected Project Managers/Creators**, you will be prompted to select the individual Project Managers who should be able to see this group. Click **Change** when you have made your selection.
  - If you chose one of the other options, go directly to the next step in this procedure.

6. Click **OK**.

### 3.11.7. Set Group Download Formats

Configure the available download formats in WebCenter Preferences (**Admin > Preferences > Download Formats**) before setting group download permissions.

1. Click **Admin > Groups**.
2. Click the group to edit.
3. Click the **Download** tab.
4. Select or deselect the download formats you want to enable.



**Note:** User permissions for download formats take precedence over group permissions for download formats.

5. Select or deselect checkboxes to grant or deny permissions as desired.
6. Click **Change**.

### 3.11.8. View Group History

Actions performed in the group including its creation, are recorded in the **History** tab of the group. You can access this from **Admin > Groups**. Now, select and open the **Group** for which you want to view the history and navigate to the **History** tab.

You can view the following actions in the **History** tab.

- Group Created
- Group Information changed ( Renaming of the group/ changes to visibility setting of the Group)
- User added or removed from the group
- Group View Rights changed (changes to the list of Project Manager's/ Project Creators who can view the Group)
- Group Manager Changed



**Note:** When the Group is deleted, you can view the event history in **Admin > Group > View History**. This page lists the events of all the groups and it can be filtered on date and users.

### 3.11.9. Setting Group Notifications

As an administrator or a Group manager, you can set up notifications individually for every group member or to a single group e-mail address.

1. Click **Admin > Groups**.
2. Click the group to edit.
3. Click the **General** tab.
4. Select your preferred way of sending notifications or disable them altogether.

- **Send notifications to everyone in the group:** When this option is selected, a group event will trigger notifications to all of the group members' e-mail addresses according to the individual language settings.
  - **Send notifications to a group e-mail address.** Specify the following info:
    - **Group e-mail address**
    - **Group-email language**

If this option is chosen, a single e-mail notification is sent to the specified Group e-mail address.
  - **Do not send notifications to this group:** Select this to deactivate email notifications altogether.
5. Click **Save**.

### 3.11.10. Managing Group Memberships in Projects

#### View a Group's Project Memberships

1. Click **Admin > Groups**.
2. Click the group to edit.
3. Click **Projects**.

#### Invite a Group to Multiple Projects

1. Click **Admin > Groups**.
2. Click the name of the desired group.
3. Click **Projects**.
4. Click **Invite to projects**.
5. Either filter or click **Go** to show the list of all projects to which this group is not invited.
6. Select the projects to which the group is being invited.
7. Click **Continue**.
8. Set the project permissions that this group will have in the projects to which it is being invited. The same permissions will apply to each project.
9. Click **Finish**.

#### Uninvite Groups from Multiple Projects

If a user in the group is an Approver in an ongoing Approval Cycle in a selected Project, the entire removal action is cancelled. You must stop the Approval Cycle first, and then perform the removal.

1. Click **Admin > Groups**.
2. Click the name of the desired group.
3. Click **Projects**.
4. Either filter or click **Go** to show the list of all Projects to which this group is invited.
5. Select those Projects from which the group is to be uninvited.
6. Click **Uninvite** in the actions menu.



7. Click **OK** to confirm the removal.

### 3.11.11. Overview of My Group's Tasks

**My Group's Tasks** lets the **Group Manager** quickly view the tasks assigned to their group or group members. It also allows to assign, re-assign, or distribute the tasks among the group members.

If a group member is ill or not available, the Group Manager can re-assign the task to an other group member. A Group Manager can also monitor the progress on a selected Group or Group Member. Using the filter options, the Group Manager can have a quick overview of the workload.

#### Group Task Manager

Every department has a Department Manager. In WebCenter Department Manager are referred to as **Group Manager**. A group can have any number of Group Managers including 0. Group Manager is always part of a group.

A Group Manager likes to view the tasks assigned to a selected group or group members, which will assist him in distributing the tasks and also get a quick view on the current status of a task.

The **My Group's Tasks** feature allows Group Managers to:

- View task assignments for a selected group and the workload overview.
- View tasks assigned to a group member and the workload overview.
- Re-assign any task assigned to a group member.
- Review the task overview filtering on status and due date.

#### Assigning a Group Manager

The **My Group's Task** page can only be accessed by a Group Manager. Only a member of ADMINS can turn a group member into a Group Manager.

1. Log in to WebCenter as an Admin user.
2. Click **Admin > Groups > Groups**.
3. Search for the required Group Name or click the Group Name from the list available.
4. Select the **Group Manager** check box for the desired group member.

You can assign multiple Group Managers to one group. The same user can also be Group Manager to multiple groups.

#### Using My Group's Tasks

To access **My Group's Tasks** feature, log in as Group Manager. Click **My WebCenter > My Group's Tasks** to view the **Group Tasks for Group** page.

#### Viewing Task Assignments

You can view the tasks assigned to a selected group and also for a group member within the group.

1. The task list for assigned group appears.



**Note:** If a Group Manager manages or is assigned to multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. In the **Tasks assigned to** drop-down list box, select the group or group member for whom you want view the task assigned.
3. A task list assigned to the selected group or group member appears. Also in the list are:
  - Task Name
  - Project Name
  - Assigned to
  - Status
  - Lead Time
  - Due Date
  - Created Date
  - Started Date
  - Estimated Date
  - Task Documents

### Viewing a Workload Overview

During editing/re-assigning, the Group Manager can have an overview of number of tasks assigned and how many are overdue. The Task Count is the number of assignments assigned to a group member. The Task Count displayed is based on the filtering criteria and tasks with past due-date always appears. The non-active projects do not appear and are not counted.

1. The task list for assigned group appears.



**Note:** If a Group Manager manages or is assigned to multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.


2. The workload overview appears for the selected group.

Search Tasks		Sort by	Due Date	Status	All but Completed
Members	Task Count				
DEKE_DEPENDENCIES	Before:	1	(1 overdue)	After:	1 (1 overdue)
ArtiosCAD, ArtiosCAD (ARTIOSCAD)	Before:	0	(0 overdue)	After:	0 (0 overdue)
deke_user2 (DEKE_USER2)	Before:	0	(0 overdue)	After:	0 (0 overdue)
il, pm (IL_PM)	Before:	51	(61 overdue)	After:	51 (61 overdue)
Keizer, Debbie (DEKE)	Before:	138	(138 overdue)	After:	138 (138 overdue)
prma (PRMA_USER2)	Before:	0	(0 overdue)	After:	0 (0 overdue)


If the task is past the due date, it appears in red.

### Reassigning a Task

A Group Manager can re-assign a task to a group or a group member. A task can be re-assigned only to a group member within the same Group. In addition to this when the task is reassigned, the WebCenter UI displays the previous assignee in **Previous** column.


1.  **Note:** Ensure to log in as **Group Manager**.

1. The task list for assigned group appears.

1.  **Note:** If a Group Manager manages or is assigned to multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. Select the new assignee in the **Assigned** to drop-down list box. This list contains group and group members name.

3. WebCenter shows changed tasks with a yellow background indicating the change.

1.  **Note:** Even if a task is not initially assigned to a group, the Group Manager has all the rights to re-assign the task to a group member.

4. Click **Save** to commit the changes.

### Filtering Based on Task Status and Due Date


A Group Manager manages multiple tasks at a time and this might lead to delay. Using the **Search Tasks Status**, one can see tasks in a more specific status.

For example, you can filter the tasks which are in Completed or In Progress status. By filtering the task, a Group Manager need not re-assign completed tasks or tasks which cannot start because a predecessor is not complete.

Similarly the tasks can also be filtered by **Due Date**. This gives a Group Manager a quick view of the task for the required time line. Using this information Group Manager can view what is due this week or this month to make the required planning.


1.  **Note:** Ensure to log in as **Group Manager**.

1. The task list for assigned group appears.

1.  **Note:** If a Group Manager manages multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. In the **Search Tasks Status** drop-down list, select the desired task status.

3. In **Due Date**, select the required due date and then click **Go**.

1.  **Note:** To set the Due Date filtering, setting a task status filter is not necessary. The Due Date changes to completion date, if the task status is filtered to completed.

The following are the default due dates settings available:

- All
- Today
- Next 3 days

- Next week
- Next 2 weeks
- Next month
- Next 3 months
- Overdue
- Week overdue, all the tasks which are overdue for less than five days.

### Filtering Based on Column

By clicking a column header, the Group Manager can view tasks for a selected group in ascending or descending order.

For example, if **Due Date** is selected then the tasks for the selected group appears with the earliest due date. Similarly if **Due Date** is clicked again, then the tasks for the selected group appears with the latest due date.

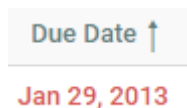
1. Log in as **Group Manager**.
2. The task list for assigned group appears.



**Note:** If a Group Manager manages multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

3. Click a column header, for example **Due Date**, to sort on this column.

The sorting is indicated by an arrow. For example, if Due Date is selected then it would appear as:



## 3.12. Managing Roles

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### 3.12.1. Roles

A **Role** is an assignment that you can create in WebCenter to be used later on in Projects. You can assign a **Role** to **Project Templates**, **Projects**, **Tasks** and **Approvals**. You can set up project permissions, approval settings and tasks for a **Role** within a project or template.

You can assign these Roles to real users and groups when needed. When you assign a Role to a real **User** or **Group**, you are assigning the Role's settings.

You can create versatile Project Templates using **Roles** which will help you to reduce the number of Project Templates.

**Roles** are created as global. This helps the Project Managers (or Selected Project Managers) to use the Roles effectively in individual projects and templates. You can invite these **Roles** as in the case of **Users** and **Groups**.

**Roles** are effective after real members (**Groups, Users**) are assigned into each of the **Roles**. A project Role assignee will be treated like a standard project member. Once you assign the **Role** to a project, these take over the role's security setup, approval setup and task assignments.

- the notifications will be sent out correctly
- the task will be shown in the respective members' to-do list
- the necessary access rights will be assigned to the members to perform the task (depending on the Role)
- the approval notifications will be sent out correctly.

You can employ multiple assignments of a single **Role**. For example, you can invite a "Designer" **Role** to all the Projects requiring a designer either after creating a Project or via the Project Template with assigned Roles.

You can use **Roles**:

- **To combine with Workflows:**

The tasks assigned to **Roles** will be picked up by the users or groups who are assigned to these Roles either at the beginning or later during the project execution. The project manager can decide who will get assigned to the **Roles**. Since WebCenter keeps track of Role assignments:

- the notifications will be sent out correctly
- the task will be shown in the respective members' to-do list
- the necessary access rights will be assigned to the members to perform the task (depending on the Role)
- the approval notifications will be sent out correctly.

- **In Project Templates:**

Features associated with **Roles** will be inherited from Project Templates during project creation. Adding **Roles** (instead of user **Groups** or individual **Users**) to your Project templates makes them more versatile.



**Note:** Although the Roles are defined for entire WebCenter, the assignment of Roles is done per project and is independent of the User. Therefore, you can assign the same user or group to a "Designer" Role in one project and restrict the access for the same User/Group in other projects.

Read more in [Creating a Role](#) on page 311

### 3.12.2. Creating a Role

1. Click **Admin > Roles > New Role**.
2. Specify the name of the **Role**
3. Determine the visibility of the Role by selecting from **All Project Managers, Administrators**, or **Selected Project Managers**. Click **Continue**

Subsequent step depends on whether you selected **Selected Project Managers** visibility in this step.

Choice	Steps
<b>Selected Project Managers</b>	You should select which Project Mangers are allowed to see the Role
All other	The <b>New Role</b> is created.

You can view these roles in the list of Project Members even after being **resolved**.

4. Assign a **Viewer Workspace** from one of the existing workspace available in the drop down or you can create a new workspace for the role created.

### 3.12.3. Editing Role details

1. Go to **Admin > Roles**. You can see the list of available **Roles**, where the Role names are visible as links in this tab. To edit any Role details, click on the Role Name and this will lead you to the tab named **General** of Role Management page.
2. You can change the name of the **Role** in the General tab. Edit the name of the role in the **Role Name** field and click anywhere else on the page to save the change or click on **Save**.
3. You can also assign a new workspace from the drop down available in the **Viewer Workspace** field or change the workspace present. It is also possible to edit or delete the workspace present by selecting the gear icon. Click on save for the changes to be effected.

### 3.12.4. Changing the Role Visibility

1. Go to **Admin > Roles** . This will lead you to the tab named **General** of Role Management page. You can see the list of available **Roles** in this tab.
2. Click on the name of the Role (visible as a link) for which you want to change the **Visibility**.
3. Go to the **Visibility** tab and change the visibility.

You will have to choose from three **Visibility** choices: **All Project Managers, Administrators Only** and **Selected Project Managers**.

Options	Description
<b>Selected Project Managers / Creators</b>	You will be prompted to select the individual Project Managers or Project Creators. Click <b>Change</b> when you have made your selection.
<b>All Project Managers/ Creators and Administrators Only</b>	You will be asked to confirm the selection. Click <b>OK</b> .

### 3.12.5. Restricting Role assignment

If your WebCenter system has one or more Groups (visible to the current Project Manager) which have the same name as the Role followed by a space and a non-empty last part, then the list of Groups

available for Role assignment is restricted to the Groups matching this name pattern. If no such Groups exist, the full list of visible Groups is available.

Example: A User wants to assign a Group to the Role SALES. If SALES BELGIUM, SALES FRANCE, SALES UNITED KINGDOM exist, the dropdown for selecting a Group to assign to this Role will only contain these Groups. Other Groups that do not match the pattern such as DESIGNERS, SALESFORCE (no space), MY SALES (does not start with SALES) are not selectable.



**Note:** In case this name pattern is used then direct User Role assignment is not possible unless one of the valid Groups is selected first.

### 3.12.6. Deleting Roles

1. Go to **Admin > Roles**. This will lead you to the tab named **General** of Role Management page. You can see the list of available **Roles** in this tab.
2. Select the **Roles** from the list of Roles by toggling the respective check boxes.
3. Click on **Actions > Delete Role(s)** from the list header.



**Note:** You will be warned if this Role is associated with an existing Project or Approval cycle.

### 3.12.7. Converting Empty Groups to Roles

Previous versions of WebCenter made use of empty **Groups** to create roles. From WebCenter 12 onwards this is replaced by **Roles**. However, you can also convert any empty **Group** that serves as **Role** into a full fledged **Role**. This will ensure that any reference to such empty **Groups** will be retained and shifted to the new **Role** that is created during this process.

To convert an empty group to a role you need to follow these steps:

1. Go to **Admin > Groups**.
2. Select those **Groups** which you need to convert into **Roles**.  
You can use **Show** filter to filter out all the non-empty groups.
3. Go to **Actions** menu. Select **Convert Group to Role** action link in to execute the conversion into a **Role**.

You will be re-directed to a page detailing how many of the selected empty groups were converted and how many were not.



**Note:** The conversion can fail when:

- a non-empty **group** is selected for conversion. Only empty groups can be converted into roles.
- a **role** with the same name as the selected empty group exists. Role names must be unique.

### 3.12.8. Delegating Roles: Setting up Roles to Assign Roles

Project Managers and Project members (with permissions) can assign a Role within their Projects. The Project Manager or Member can do this from the **Manage Roles** page.

1. Click **Admin > Roles**.
2. Select the **Role** you want to assign permissions to.
3. Click the **General** tab.

**Role: CSR**

Roles | New Role | **General** | Visibility

---

**Role CSR**

Tip: \* indicates required field

**Role Name:** \*

**Role is Visible by :** <All Project Managers>

**Role can invite following roles :** Sales; CSR; Printer

**Save**

4. Click on the **Roles can invite following roles** link. This will open **Manageable Roles** page.  
**Role can invite the following roles** drop down will contain all the Roles present in the system.



## Role: **MANAGEMENT**

Roles | New Role | General | Visibility | **Manageable Roles**

**Roles Managed by Role *MANAGEMENT***

---

**Role can invite the following roles:**

- DESIGN
- FINANCE
- MARKETING

**Role can invite the following roles** list depends on the visibility rules. See below.

Admin and PM with full visibility	PM with limited visibility	Normal user
All Users and Groups	Visible Users and Groups	<ul style="list-style-type: none"> <li>Users from his own company (all locations).</li> <li>Users and Groups present in the same Project (through individual or role assignments).</li> <li>Groups the user is member of.</li> </ul>

5. Save.

After setting up this configuration, the Project Member in that specific Role can invite other Roles.

The same Project Member in different Roles can have individual configurations in **Role can invite the following roles** list. In this scenario, the list of Roles that this Member can assign will be the sum of these individual lists.

### 3.12.9. View Roles History

You can view the changes that are made to the Roles in the **History** tab. You can access this in the **Admin > Roles**. Now, select and open the **Role** for which you want to view the history and navigate to the **History** tab.

- Role Created
- Role Information Changed (renaming of the Role/ changes to visibility setting of the Role)
- Role View Rights changed (changes to the list of PM's/ Project Creators who can view the Role)
- Group Converted to Role. History of the group is transferred here and all details can be viewed now in the Role History



**Note:** When the Role itself is deleted, you can view the event history in **Admin > Roles > View History**. This page lists the events of all the roles and it can be filtered on date and users.

## 3.13. Discussions

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Discussions helps users to communicate with each other better and enables to seamlessly interact at various levels like project, document or at task level. Discussions facilitates WebCenter users to have conversations, which facilitates collaboration and faster decision making.

You can start a discussions in WebCenter, in a **Project**, **Task** or at a **Document** level.

You can view the conversations in the **Project** or **Task** or at the **Document** level in the **Discussions** Tab. **Discussions** can be with all the members or private conversations with few or one member of the project.

Admin users have permission to view, edit the members, and delete the messages or the discussions itself in any of the project, or task or document. Admin Users, Project Managers of the Project where the discussion is in and the owners of the Discussion can make the discussion read only.


All members of the Project can start a new discussion. Read more on how to start a discussion or post a message in a discussion [Start a New Discussion](#) on page 827.

### 3.13.1. Global Discussions

Admin users can communicate to all the users in the WebCenter using Global discussions. It is an one-way communication and can also be made read-only. By default, global discussions are for everyone but admin users can also restrict the audience by selecting the targeted users, roles or groups.

You can start a global discussion on either **My Discussions** page or in the **Discussions** widget on **My Work** page. Based on the setup of notifications, a notification is sent when a discussion is started or a message is posted.



**Note:** You can use the  read-only toggle button, to make an existing discussion read only.

### 3.13.2. Enabling Discussions in Task Type

To start Discussion in a Task, **Task Type** chosen for the task should have the field **Allow Discussions** enabled. Either Admin users or Project Managers with **Create Task Type** permission can do so. Refer to the steps here to create a task type [Create a Task Type](#) on page 836.

#### To Enable Discussions in a Task:

1. Open any **Task Type** and enable **Allow Discussions** in the **Discussions** tab.
2. You can choose the Discussion contexts from the drop down list.
  - **Current Task** : Discussions are created in the current task and are visible in the task.
  - **Parent Workflow**: Discussions created on the tasks of the parent workflow are visible in all the tasks of the parent and the child workflows.

- **Root Workflow:** Discussions created on the task of the root workflow are visible in all the tasks of the related workflows or the workflow with this setting.
  - **Project:** Discussions created in the task are Project Discussions and are visible in the task.
3. Choose **Show Discussions of Documents linked to the Task** to view the discussions that happen at the document linked to this task.



**Note:** Once the task is completed, discussions are in read-only mode.

### 3.13.3. Copying Discussions from Project / Template

As an Admin user, you can create default templates of discussions and messages which are inherited to projects that are created from the template.

The discussions can be copied optionally, when a new project is created from another project.



**Note:** Notifications are not sent for discussion events triggered on a project template level.

#### Copying Discussions from the Project Template

When you create a Project based on a template, the new project is created with the discussions that were defined in the template. This will also include the users and messages in every discussion that is copied.

All Project, Document and Task Discussions from the source Template/Project are included in the target project.

#### Copying Discussions from another Project

Project Manager users can specify to **Copy Discussions**, when a new project is created from **Copy Project from another Project** option.

**Copy setup from an Existing Project**

- Copy Project Manager
- Copy Members
- Copy Approval Settings
- Copy Folders
  - Including Documents
  - Including Bill of Materials
- Copy Attributes
- Copy Characteristics
- Copy Tasks From Source Project ▾
- Copy Security Settings
- Copy Notifications
- Copy Discussions

Cancel OK



**Note:** When **Copy Discussions** is enabled, Project discussions will be copied to the newly created project. Document and Task discussion will be copied, if the **Including Documents** and **Copy Tasks** options are also selected.

### 3.13.4. Deleting a Discussion or message

Admin users have the option to delete some of the discussions and messages that may not be required or redundant. For security reasons, this option is available only for Admin users and Project Managers.

1. To delete, open the discussion and click the delete button in the Action bar.
2. To delete a message, hover over the message and click the delete button.



**Tip:** Depending on the notifications set up for discussions, an email notification is sent when a message or a discussion is deleted. You can set up notifications when a member is added or deleted from a discussion. Project history is updated when any changes are made to an existing Discussion or a message in the Discussion.

## 3.14. Project and Document Characteristics

Characteristics are descriptive tags that can be assigned to projects or documents to make them easier to find.

Characteristics are hierarchical. This means there can be different levels of characteristics for various product lines so that you can drill down through the information to find the exact characteristic desired when searching the database.

For example, you could create a master characteristic for Electronics, and then various sub-characteristics for types of appliances, entertainment equipment, or computers, and so forth. They are presented in a tree format - main categories with expandable branches. The characteristics tree configures the available characteristic names as well as how they are organized.

### System History Logs

All Characteristics related events like

- **Characteristics Created**
- **Characteristics Deleted** and
- **Characteristics Changed**

are recorded and stored in System History. Read this page on how to access the records [System History](#) on page 456

## 3.14.1. Create a Characteristic

1. Click **Admin > Characteristics**
2. Do you want to add a primary characteristic (a main category) or a secondary characteristic?
  - To add a primary characteristic, select the option button next to **Root** at the top of the tree and then click **New Characteristic**.
  - To add a secondary characteristic, select the option button for the characteristic under which to add the new one, and then click **New Characteristic**.

There can be up to 17 levels of characteristics or at most 256 characters for the entire characteristics path from the root characteristic to the deepest-level characteristic.

3. Enter the name of the characteristic in the **Name** field.
4. Click **Create**. The new characteristic appears in the list.

## 3.14.2. Edit or Delete a Characteristic

When deleting a characteristic, WebCenter checks if the characteristic or any of its child characteristics are assigned to any Projects or documents. If such a dependency is found, you are prompted to remove the dependency and delete anyway, or cancel the deletion.

1. Click **Admin > Characteristics**
2. Do one of the following:
  - To edit a characteristic, click its name in the tree structure. Type a new name in the **Edit Characteristic** page and click **Change** to confirm.
  - To delete a characteristic, select it in the tree and click the **Delete Characteristic** link.

If there are no dependencies, it is deleted immediately. Note that any sub-characteristics of the selected characteristic will also be deleted.

### 3.14.3. Export/Import Characteristics

When exporting a project or project template, the project characteristics are exported along with other project information. Upon import, the characteristics are restored on the target system. When the characteristic does not exist on the target system, it gets created automatically.

- In the source location, to Export **Characteristics**, go to **Admin > Projects**.  
 Select the Projects that you would like to export. Click **Export** to start a download of a XML file containing the characteristics.  
 Save this on your computer
- In the target location, to import **Characteristics**, go to **Admin > Projects > .**  
 Select **Import from File** and choose the XML file which was downloaded earlier.

## 3.15. Project and Document Attributes

---

### Basic concepts

**Attributes** are a way to assign user-configurable fields and their values to documents and projects. They can be:

- **Prompted** so that the user has to set a value each time it is used,
- **Calculated** from an ArtiosCAD formula,
- restricted to a group of preset values (a **Restricted Set**).

The Restricted Sets must exist before you can use them when creating an attribute.

**Attribute Categories** group attributes together for convenience. An attribute must be put into an attribute category before it can be used; however, the same attribute can be in multiple categories.

You must create an Attribute Category before adding attributes to it.

### 3.15.1. Restricted Sets

#### Create a Restricted Set

1. Click **Admin > Attributes > Restricted Sets > New Restricted Set**.
2. Enter information in the fields as appropriate:
  - **Name**: the name of the Restricted Set, up to 35 characters.
  - **Type**: the data type of the Restricted Set. There are eight allowed types: **Area, Date and Time, Distance, Float, Integer, Text, Text (Right to Left), Volume, and Weight**.  
 A **Float** is a number containing a decimal point and an **Integer** is a whole number.



The labels in parentheses after the name of the type indicate the units of measurement used in Imperial and Metric systems.

- **Value:** an entry for the restricted set. Text values can be up to 255 characters long.

Click **Add** to add the value to the set and clear the **Value** field. Enter as many values as desired, clicking **Add** after each one.



**Tip:**

You can sort the **Values** list using  and , or click the **Sort** button to sort it alphabetically (for **Text Type** Restricted Sets).

You can also select one or more values and click **Remove** to remove them.

3. Click **Create** to create the Restricted Set.

### Edit a Restricted Set

1. Click **Admin > Attributes > Restricted Sets**.
2. Either filter or click **Go** to show the restricted sets.
3. Click the name of the restricted set to edit.
4. Change the name, or add and remove values as desired. You cannot change the type.



**Note:** If you remove a value, the next time you access a project using the deleted value, you will be prompted to change it.

5. Click **Change** to make the changes.

### Delete a Restricted Set

WebCenter checks if a Restricted Set is being used before deleting it. If it is in use, you will be prompted to either clear the restricted set from the attribute using it, or to cancel the deletion.

1. Click **Admin > Attributes > Restricted Sets**.
2. Either filter or click **Go** to show the restricted sets.
3. Select the checkbox of the restricted set to delete and click **Delete Restricted Set(s)** in the actions menu.
4. Click **OK** when asked to confirm the deletion.
5. If the restricted set is not being used, it is deleted immediately.

### Export / Import Restricted Sets

You can **Export** and **Import restricted sets** .

- To **export**, go to **Admin > Attributes > Restricted Sets:**
  - a) Click on the **Import** link.
  - b) Browse to a previously saved XML file.
  - c) Select **Actions > Export**.  
This will start a download of an XML containing the Restricted Set.
  - d) Save this on your computer.

- To **import**, go to **Admin > Attributes > Restricted Sets**:
  - a) Select the **Restricted Set** to export.
  - b) Select **Actions > Export**.
  - c) Click the **Import** button.

If the restricted set exists, it will be overwritten with the new values. If it does not exist, it will be created.



**Note:** This is similar to exporting / importing attribute categories and task types. The exported category will contain the exported restricted sets in the same XML file. While Importing this in a new system, the restricted sets and attribute categories will be created.

**System History Logs**

All Restricted Set related events like

- **Restricted Set created**
- **Restricted Set deleted** and
- **Restricted Set changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### 3.15.2. Attributes






**Create an Attribute**

1. Click **Admin > Attributes > New Attribute**.
2. Enter information in the fields as appropriate:

In the field...	Fill in the...
<b>Name</b>	name of the attribute (for example, Billable).
<b>Label</b>	text of the label which has to be displayed. To get the translated text of the label in the other languages chosen, select the blue icon to open <a href="#">Find or Create Translated labels</a> on page 324.
<b>Description</b>	description of the attribute contents (for example, Indicates whether work on this project should be billed by finance).
<b>Type</b>	the type of the attribute. You can select from the drop down.



In the field...	Fill in the...
	<div style="border: 1px solid black; padding: 5px;"> <p>--- Select Attribute Type ---</p> <hr/> <p>--- Select Attribute Type ---</p> <p>Area(sq in.,sq cm)</p> <p>Area(sq in.,sq mm)</p> <p>Area(sq ft,sq m)</p> <p>Date and Time</p> <p>Distance(in.,mm)</p> <p>Distance(in.,m)</p> <p>Document Reference</p> <p>Float</p> <p>Integer</p> <p><b>Rich Text</b></p> <p>Text</p> <p>Text (Right to left)</p> <p>Volume(cu in.,cu cm)</p> <p>Volume(cu in.,cu dm)</p> <p>Volume(cu ft,cu m)</p> <p>Weight(lbs,gr)</p> <p>Weight(lbs,kg)</p> </div> <p><b>Document References</b> are attribute-links pointing to different document sources. When you select this option, you will have more options. Read more in <a href="#">Create a Document Reference Attribute</a> on page 374.</p> <p><b>Floats</b> are numbers containing a decimal point (e.g. 3.1415) and integers are whole numbers (e.g. 42).</p> <p><b>Date and Time</b> attribute added in the project attribute category allows to link a date/time to the project status.</p> <p><b>Text ( Right to Left)</b> attribute allows text to be written right to left always and this feature is available in 18.0.1 onwards.</p> <p><b>Rich Text</b> attribute type allows you in entering long and/or rich text. You can:</p> <ul style="list-style-type: none"> <li>• add set of least 16 different colors.</li> <li>• set the text bold and italic.</li> <li>• use bulleted and numbered lists.</li> <li>• Heading up to four levels and also add tables.</li> </ul> <p>In the <b>Preview</b> you will see the Rich Text editor. Click the <b>Show Rich Text Controls</b> link to view the broad pallet of text options. The Project Managers with change properties rights can add content from a document to the Rich text editor window. Here, the text (also Chinese, special characters), font types, bullet types, color, tables and headings are preserved. From WebCenter 18.0.1, there is also an option to change the text</p>

In the field...	Fill in the...
	direction using the buttons   (right to left or left to right).
<b>Values</b>	choose either: <ul style="list-style-type: none"> <li>• <b>Prompted</b> if you want to allow the user to enter any value.</li> <li>• <b>Calculated</b> if you want to use an ArtiosCAD formula to calculate the attribute value (enter the ArtiosCAD formula in the field).                             <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> You should set <b>Calculated</b> attributes to <i>read-only</i> as their values are automatically updated from ArtiosCAD and should not be changed by WebCenter users. To set the value of the calculated attributes during upload, ensure that you have a default attribute category with the calculated attributes for the ArtiosCAD documents.                             </div> </li> <li>• <b>Restricted Set</b> to limit the possible values.                             <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b>                                  To choose a Restricted Set, it must be created before defining the attribute (see <a href="#">Create a Restricted Set</a> on page 320).                                   Make sure that the <b>Type</b> of the Restricted Set is the same as the attribute type.                             </div> </li> <li>• <b>Note:</b> For <b>Document Reference</b> attributes, you will have only <b>Prompted</b> as the <b>value</b>.                             <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> For <b>Document Reference</b> attributes, you will have only <b>Prompted</b> as the <b>value</b>.                             </div> </li> </ul>

3. Select **Attribute is also a task specification** if you want to be able to use the attribute as a task specification.

For more information about task specifications, see [Basic Concepts of Task Management](#) on page 833".

4. Click **Create**.

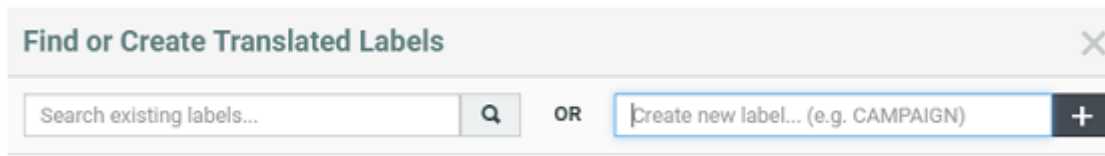
### Find or Create Translated labels

#### Where will you find this option

This option may be found, when you

- Create an Attribute or a document reference
- Create or edit a Search using **Search Panel Design**

### How to Create new translated label



You can either search for translations or create a new label in the language you require.

### Edit an Attribute

1. Click **Admin > Attributes**
2. Click the attribute to edit.
3. Edit the attribute as desired (change the **Name, Description...**).



**Note:** You cannot change the attribute type.

4. Click **Change** to make the changes.

### Copy and Paste Attributes

Attributes can be easily copied between attribute categories between two views in the same categories or between attribute categories and task type specifications. This can be done within the same WebCenter system or between different WebCenter systems.

To copy your selection of attributes in any view to the clipboard by either using keyboard shortcuts like Ctrl/Cmd+C, Ctrl/Cmd+X, Ctrl/Cmd+V, or by using a context menu (right click).




**Note:** Copy and paste of attributes is possible only in Grid Layout and this feature is not supported in the Header view of the Attribute Category.

When pasting the content in a cell, all settings including labels, rules, styles, document reference rendering configurations and lists are copied.

There can be conflicts detected when you paste the copied cells into another location. Following are the possibilities that may arise:

Conflict Detected	Action that can be performed
Target cells are already occupied	Choose to overwrite or cancel the operation
Copied cells are already existing in the new location	Choose to replace the existing one or skip the conflicting cells or cancel the operation
When the copied attribute has rules / styles that are already existing in the new location	Choose to <ul style="list-style-type: none"> <li>• overwrite the rule/ style</li> <li>• keep both the rules/ styles. Copied rules/styles gets a number added to its name</li> <li>• Use the existing rules/Styles or</li> <li>• cancel the operation</li> </ul>

Conflict Detected	Action that can be performed
When a list entry is already assigned to a different set of attributes in the destination category	Choose to <ul style="list-style-type: none"> <li>• overwrite the list</li> <li>• keep both the lists</li> <li>• merge values or</li> <li>• cancel the operation</li> </ul>
When the copied Form property (Task execution or project creation view) already exists in the destination	Choose to <ul style="list-style-type: none"> <li>• overwrite the selection</li> <li>• Skip the action</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> When a form property is placed in a view where it cannot be placed, it will be ignored</p> </div>

### System History Logs

All Attribute related events like

- **Attribute Created**
- **Attribute Deleted** and
- **Attribute Changed**

are recorded and stored in the System History. Read this page on how to access the records [System History](#) on page 456

### Delete an Attribute

When deleting an attribute, WebCenter checks if the attribute or any of its child attributes are used in any projects. If it is, you are prompted to remove it from the project and delete anyway, or cancel the deletion.

1. Click **Admin > Attributes**
2. Select the attribute to delete and click **Delete Attribute(s)** in the actions menu.

If the attribute is not being used, it is deleted immediately.

### 3.15.3. Attribute Categories

An attribute category is a set of attributes which are used together and is a way to apply attributes to a project or a document.

Attribute categories contain:

- attributes you selected
- lay-out elements (ruler, table, spacer, title)
- styling
- custom labels

- rules
- 
- buttons (potentially automatically executed on events)

### System History Logs

All Attribute Category related events like

- **Attribute Category Created**
- **Attribute Category Deleted** and
- **Attribute Category Changed**

are recorded and stored in the System History. Read this page on how to access the records [System History](#) on page 456

### Create an Attribute Category

1. Click **Admin > Attributes > Attribute Categories > New Category**.
2. Enter the name of the Attribute Category to create, for example `Shipping Instructions`.
3. Click **Create**.

Once you have created the attribute category, you can add attributes to it, define views, etc.

To do this, click the **Attribute category was created successfully. Edit ...** link (see [Add Attributes to an Attribute Category](#) on page 327 for details).

### Rename an Attribute Category

1. Click **Admin > Attributes > Attribute Categories**.
2. Click the attribute category to rename.
3. Type the new name in the **Edit Category** page.
4. Click **Save**.



**Note:** Click **Save As Copy** if you want to duplicate the attribute category under the new name, while keeping the original category as it was.

### Add Attributes to an Attribute Category

1. Click **Admin > Attributes > Attribute Categories**.

The **Edit Category** page shows two columns: the available attributes (that you can add to the category) at left, and the attributes that are already in the category at right.

2. To add attributes to a category or remove them from it, use the chevron (<< or >>) buttons to move them between the two columns.





**Note:**

Moving attributes between columns takes effect immediately.

Attributes you have added to the category have an \* in the left column.



**Tip:** Use the search field to filter the available attributes list, and the  and  buttons to change the order of the attributes in the category.

You can see a **Preview** of your attributes under the columns.

3. Click **Save** when you are done.

## Attributes Views

You can use different layouts for the same **Attribute Category** in different locations or pages by creating custom **Attribute Views**. A View created for a particular context can have custom layout for that context. This way, different places in the user interface can show different levels of details of the attributes.

For example, you can choose to show very few attributes during **Document upload** using a **Creation View**. See more examples below.

You can use special Attribute Views such as Project Creation Form view to create request forms in WebCenter. You can completely customize these forms with your business terms without any default terminology from the application.

You can have multiple **views** for an **Attribute Category**. Essentially, these are subsets of the category with different layouts (if you have configured it that way).

You can configure the following views:

- Default view: used in project attribute details page and document attribute details page. You cannot delete this view.
- Creation view: used in the project creation and upload document pages.
- Header view: used in the headers of project details pages and document details pages
- BOM view: used in the Bill of Materials tab of projects
- Task Type views: For each task type you can define a view which will be used in the task execution page for documents attached to this task.
- Viewer Views
- Project Creation Form View
- Task Execution View (for Task Specifications)

### Default View

When adding attributes to a category, only the **Default View** of the category exists at first (you can add other views). The **Default View** is the view that will be shown in the project or document details (on the **Attributes** page).

Documents (3) | Tasks (0) | Discussions (0) | Characteristics | **Attributes** | Project Information | Approval | Notifications | Members | Security

**Show Attributes in Category** *Package Information* [Change Category](#)

Name	Value	Type
Product name	<input type="text" value="Choc' Ice Cream"/>	Text
Country	<input type="text" value="Belgium"/>	Countries
Length in Inches or mm	<input type="text" value="220"/>	mm
Number of Spot Colors	<input type="text" value="2"/>	Integer

**Save**

Export to JDF file:

Import from JDF file:



**Note:**

- Users can edit attributes in the default view if they have **Change Properties** right on the project (for project attributes) or on the folder containing the document (for document attributes).
- When editing attributes, they **must** fill in attributes that are **required** (they have a red \*).
- They cannot edit attributes that the Admin made **Read Only**.

**Creation View**

If you have added a **Creation View** of the attributes, users see it when they:

- create a project with attributes,
- create a document placeholder from a document template with attributes,
- upload one or multiple documents with attributes.

**Create Project**

Create:

Template:  [Show Details](#)

**Details**


Name:

Project Manager:  Status:

Customer:  Location:

Description:

Due Date:

Thumbnail:  [Change](#)

**Documents**

**Members**

**Attributes**

Name	Value	Type
Product name	<input type="text" value="Choc' Ice Cream"/>	Text
Country	<input type="text" value="Belgium"/>	Countries
Length in inches or mm	<input type="text" value="220"/>	mm
Number of Spot Colors	<input type="text" value="2"/>	Integer

[Create](#)




**Note:**

- If you haven't added a creation view, users will see the default view instead when performing those tasks.
- When editing attributes, users **must** fill in attributes that are **required** (they have a red \*). They will not be able to create the project / document placeholder if they don't!  
Users cannot edit attributes that the Admin made **Read Only**.

**Header View**

If you have added a **Header View** of the attributes, users see it in the header of the project or document details page.

**Project: Choc' Ice Cream packaging** **Status: Active**



**Manager:** Berg, Brune  
**Customer:**  
**Due On:**  
**Modified:** Sep 22, 2010  
**Description:**

**Product name:** Choc' Ice Cream  
**Country:** Belgium  
**Length in inches or mm:** 220 mm  
**Number of Spot Colors:** 2





**Note:**

- If you haven't added a header view, users will **not** see attributes in the project or document header.
- Users cannot edit attributes in the header view.

**Task Type View**

If you have added a **Task Type View** of the attributes, users see it on the task details page for documents attached to a task of that specific task type.

**Viewer View**

You can create dedicated **views** to allow your users to view the active document's **attribute category** in the Viewer.

If you have configured your **attribute category** with such Views, your users can view this in the [Attributes widget](#).

For example, you can create **attribute category** based checklists for different **roles / groups**. When a **user** from that **role** or **group** views the documents with that **category**, this attribute checklist will be visible in the viewer. Read more about this use case in: <https://wiki.esko.com/pages/viewpage.action?pageId=170047115>.

As an another example, you can use this to view your document references in the Viewer. If you have more than one CAD document references associated with your graphics file, you can create a Viewer view for these attributes with specific **source** and **rendering** configurations. Your user will then be able to change a reference from the Viewer and save this configuration.



**Note:** Only the users with **Project / Folder level Change Properties** permissions can change and save attributes from the [attributes](#) widget.

Read also: [Add Viewer Views](#) on page 332.

**Add Attributes Views**

- To add a creation view:
  - a) Click **Add Creation View** in the **Edit Category** page.  
The attributes in the category are copied from the default view to the creation view.
  - b) Use << to remove any attributes you don't want to show in the creation view.



**Note:**

You cannot add attributes to the creation view if they are not already in the default view. To add more attributes to the creation view, switch the **Current View** to **Default**, add the attributes, then switch it back to **Creation**.

- c) Use a grid layout if desired (see [Use a Grid Layout](#) on page 340 for more information).
- To add a header view:
  - a) Click **Add Header View** in the **Edit Category** page.  
The attributes in the category are **not** copied from the default view to the header view.
  - b) Use >> to add attributes to the header view.



**Note:**

You cannot add attributes to the header view if they are not already in the default view. To add more attributes to the header view, switch the **Current View** to **Default**, add the attributes, then switch it back to **Header**.



**Note:** You cannot use a grid layout for the header view.

c) Click **Save** to save all your views.

**Add Viewer Views**

You can create dedicated **views** to allow your users to view the active document's **attribute category** in the Viewer.

If you have configured your **attribute category** with such Views, your users can view this in the [Attributes widget](#).

For example, you can create **attribute category** based checklists for different **roles / groups**. When a **user** from that **role** or **group** views the documents with that **category**, this attribute checklist will be visible in the viewer. Read more about this use case in: <https://wiki.esko.com/pages/viewpage.action?pageId=170047115>.

As an another example, you can use this to view your document references in the Viewer. If you have more than one CAD document references associated with your graphics file, you can create a Viewer view for these attributes with specific [source](#) and [rendering](#) configurations. Your user will then be able to change a reference from the Viewer and save this configuration.



**Note:** Only the users with **Project / Folder** level **Change Properties** permissions can change and save attributes from the [attributes](#) widget.

To create a Viewer View:

- Click **Add View** in the **Edit Category** page. You will get a pop-up to type in the **view name**.
- Type the name of the View. You can create a general `Viewer` view for all users or views dedicated to a particular **role / group**.

You can create the following **views**:

- `Viewer` for a general Viewer view of the attributes.
- `Viewer [Role]` with the specific **role** name as a suffix. This view will be visible in the **Attributes** widget of the Viewer when a member of that **role** opens the document.
- `Viewer [Group]` with the specific **group** name as a suffix. This view will be visible when a member of that **group** opens the document.



**Note:** It is important that you name your **views** exactly as above

You will be switched to the newly created **view**. All your attributes from the **default view** will be copied into the new one.

- Use << to remove any attributes you don't want to show in the **Viewer** view.



**Note:**

You cannot add attributes to these views if they are not already in the default view. If you need more attributes in the Viewer view:

1. Select the **Default** view in the **Current View** drop down.
2. Add **attributes**.
3. Switch to the **Viewer** view in the **Current View** drop down.

The attributes added to `Viewer`, `Viewer [Role]` or `Viewer [Group]` will be visible in the Viewer.

- If your Viewer view is for [document reference attributes](#), create specific [source](#) and [rendering](#) configurations.
- **Save.**

If your Attribute Category View(s) are...	and your User Role / Group is...	The Viewer will have...
Only Default	Any	No widget
Viewer	None	Viewer View
Viewer, Viewer Designer	None	Viewer View
Viewer, Viewer Designer	Designer	Viewer Designer View
Viewer, Viewer Designer, Viewer Legal	Legal	Viewer Legal View
Viewer, Viewer Designer, Viewer Legal	Designer and Legal	Viewer Designer View / Viewer Legal View + selector to switch between the Views
Viewer, Viewer Designer, Viewer Legal	Marketing	Viewer View

[Viewing Attributes](#) on page 739

### Edit the Terminology for Project Creation

It is possible to change the terminology used for project creation so that the Project Creation page talks about "Designs" instead of "Documents", or "Roles" instead of "Placeholder Groups", for example...

You can achieve this by customizing the terminology in the attribute category of the project or template used as a basis for project creation.

You need to:

1. Click the attribute category to use on the **Attribute Categories** page.
2. [Add a Creation or Header view](#) to your attribute category and click **Save**.
3. Click **Edit Terminology**.
4. In the **Edit Terminology** pop-up, fill in the custom terms you want use instead of the default project creation terms.

For example, fill in `Designs` in the **Documents** field if you want to show "Designs" instead of "Documents" on the project creation page.

Any field left blank will still use the default term.

**Edit Terminology**
✕

Change terms in all Project Creation Forms where this Attribute Category is used

Default Term	New Term
Details	<input type="text" value="Set Project Details"/>
Name	<input type="text"/>
Requestor	<input type="text"/>
Project Manager	<input type="text" value="Project Owner"/>
Status	<input type="text"/>
Customer	<input type="text" value="Division"/>
Location	<input type="text"/>
Description	<input type="text"/>
Due Date	<input type="text"/>
Bill Of Materials	<input type="text"/>
Documents	<input type="text" value="Attachments"/>
Document Template	<input type="text"/>
Members	<input type="text"/>
Role	<input type="text"/>
Invite Members	<input type="text"/>
Attributes	<input type="text" value="Enter Request Details"/>
Section Sequence	<input type="text"/>

Example: GABDM = Gen. Details | Attrs | BOM | Docs | Members

Cancel
OK



**Attention:** Your custom terms will not be automatically translated, and will show **as you enter them** for all languages in which you run WebCenter.

5. Optionally, you can specify **Section Sequence** if you want to alter the order of the sections. To do that alter the sequence of the GABDM (**General Details, Attributes, Bill Of Materials, Docs, Members**) in the way you want.
  - The system does not accept wrong combinations such as other letters, too many letters or repetitions.
  - If less letters are given, the system will order these sections first and then put the others in the normal sequence.
  - Section sequence is not applicable to project creation view since it displays the attribute category

In the Task Specifications of a Task Type, it's also possible to edit terminology, though more limited; it is not possible to change the section sequence. The edit terminology link is available in the Default view and the task execution view

If you configure the Project Creation form to have less sections than GABDM, these are simply taken out. For example, if you specify GABDM, but have configured the Project creation with no Documents section, you will have the following in that order:

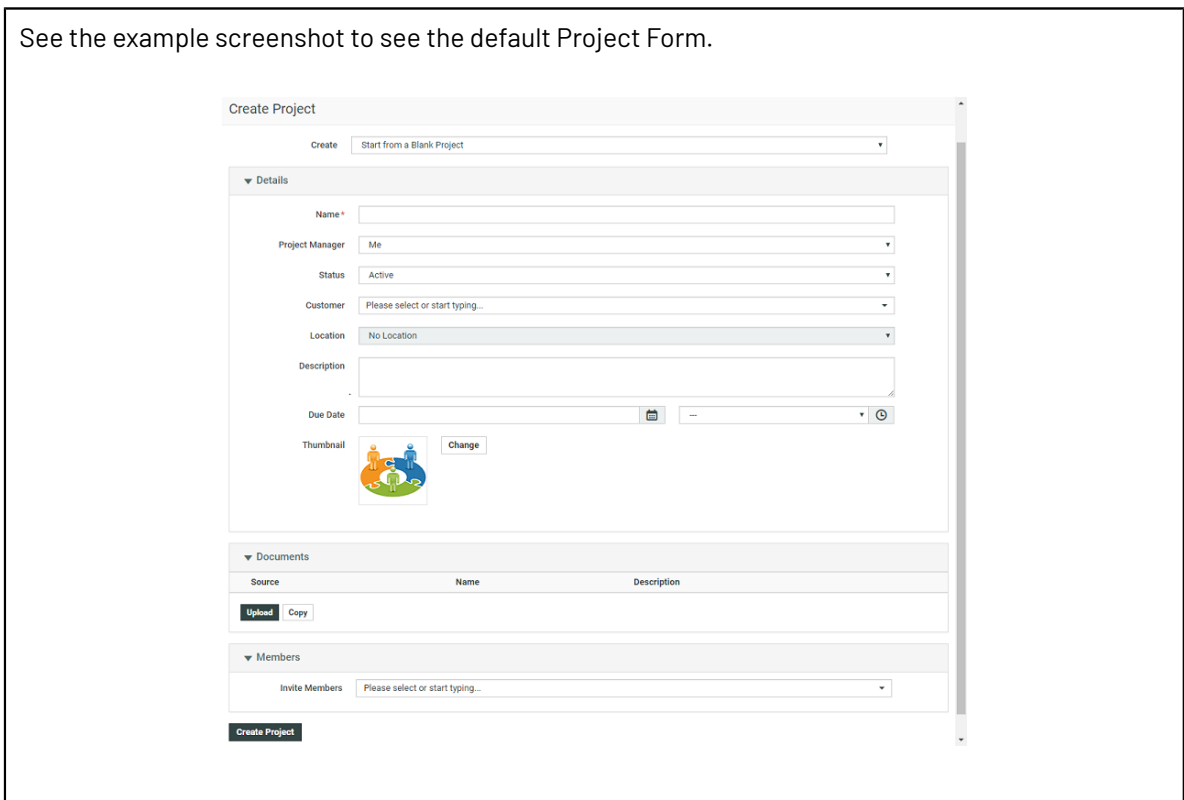
- General details
- Attributes
- Bill of Materials
- Members

**Project Creation Form View**

You can fully customize your Project Creation form in WebCenter. This way you can have a uniform customized look for the entire project creation form. You can combine **attributes** with project properties in an Attribute Category with a **Project Creation Form View**.

When you add this special view, this category will load default Project Creation Properties just like **attributes** in their default order ( as in a default Project Form).

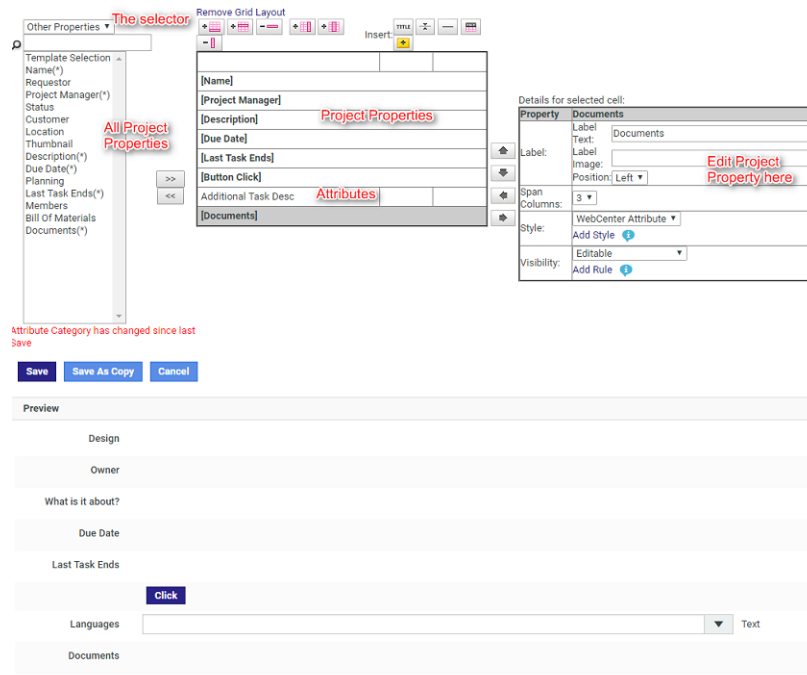
See the example screenshot to see the default Project Form.



The following **Project Properties** are available in this view and you can customize all of them. The fields from all sections are included in this view but without section titles (Members, Bill of Materials, Documents).

- **Template selector** on top of the Project Creation form
- **ProjectName**
- **Requestor**
- **Project Manager**
- **Thumbnail**
- **Customer**
- **Planning (backward or forward)**
- **LastTaskEnds (Date for Planning)**
- **Status**
- **Description**
- **Location**

- **Members**
- **Bill of Materials**
- **Documents**



In the attribute selector pane, you will see both the attributes and the project properties. You can use the selector to toggle between **Attributes** and **Project Properties**.

When the Attribute Category (with Project Creation View) is assigned to the Template or the Project, the new custom form fields will appear during project creation.

**Notes**

Use caution when customizing Project Property fields:

- When you remove **ProjectName** from the Attribute Category View, make sure that you have configured **Autonaming** in the Project Template.
- Make sure that **Project Details > Configuration > Project Creation** page is in line with your Project Creation view:

Show	Feature	Required
<input type="checkbox"/>	Feature	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Set Project Manager	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Set Status	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Set Customer	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Set Description	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Set Due Date	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Upload Documents	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Assign Roles	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Invite other Members	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Set Attributes	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Select Thumbnail	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Set Planning (Tasks)	<input type="checkbox"/>
	Default Planning Method <span>Backward ▾</span>	
<input type="checkbox"/>	Change Bill of Materials	<input type="checkbox"/>

- The **required** fields should be configured as **Visible**. Read more in: [Project Creation Settings](#) on page 174
- Make sure that the **Set Attributes** is enabled. If this field is disabled, the Project Creation Form will not load (when using Project Creation Form view).
- If some fields are disabled in this page, but added to the Project Creation Form view, they are not available during project creation.
- Planning fields are available only when the Project / Template has tasks. Also if the label of the field **LastTaskEnds** is not custom, the value will change to "First Task Starts" when planning is set to **Forward**.
- The **Requestor** field is available when there is a REQUESTOR role.

### Add Project Creation Form View

Create the [Attribute Category](#) that you want to assign to the Project or Template from which your users will create Projects.

To modify the Project Creation Form, you have to **Add Project Creation View** to this Attribute Category.

To add a Project Creation Form view:

- Click **Add Project Creation View** in the **Edit Category** page.  
The existing attributes (if any) and all default **Project Properties** are added to this view.
- Use << to remove any **Project Properties** or **Attributes** you don't want to show in the Project Creation Form. Read the notes in: [Project Creation Form View](#) on page 335 before you do this step.  
You can also drag these Project properties and place them between the Attributes in the Attribute Category. When you remove properties, they don't appear in the Project Creation Form.

Name  
DEKE\_DSR\_Form

Current View: **Project Creation** | Delete View | Add Creation View | Add Header View | Add View | Edit Terminology

Alternating background  
 Show also Attribute types and Restricted Set types  
 Keep session alive (avoid that people get logged off due to time out)  
 Use Alternative Rendering (Gives more control over column width)

Attributes

- DEKE\_Contact\_DocRef(\*)
- DSR\_Customer(\*)
- DSR\_Description(\*)
- DSR\_Doc(\*)
- DSR\_Due Date(\*)
- DSR\_Location(\*)
- DSR\_Notes(\*)
- DSR\_Requested Task
- DSR\_Sales Rep(\*)
- DSR\_Service Rep(\*)
- DSR\_Task Due Date
- DSR\_Task Qty
- DSR\_Task Type

Remove Grid Layout

[Project Manager]	[Location]	[Thumbnail]	DSR_Due Date
DSR_Sales Rep	DSR_Service Rep	DSR_Location	
DSR_Notes			
[Spacer]			
DSR_Doc			
[Spacer]	DSR_Customer	DSR_Description	
DEKE_Contact_DocRef			
[Button Fill in some Customer data]			

Details for selected cell:  
No cell is selected or the selected cell is empty

Save Save As Copy Cancel



**Note:**

You cannot add attributes to this creation view if they are not already in the default view.

To add more attributes to the creation view, switch to the **Default** view, add the attributes and switch back to **Project Creation Form View**.

- Use a grid layout if desired (see [Use a Grid Layout](#) on page 340 for more information). Grid layout gives you the possibility to customize your **Project Properties** with advanced features.

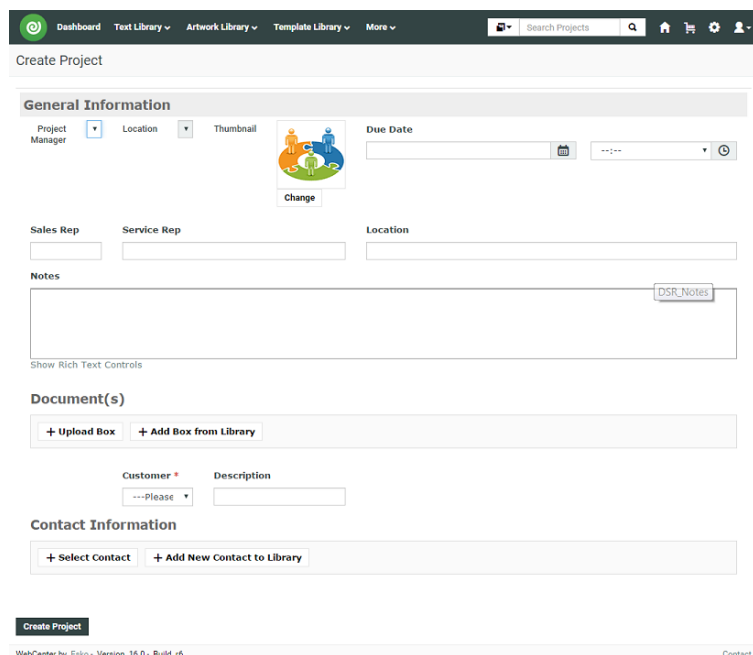
Keep the following in mind when customizing Properties:

- You can show and hide fields or sections based on attribute values
- You cannot specify them as Read-Only or Required
- You can customize the label or image including their position (left or top).
- You can add Style to these Properties
- You can define the Column Span for them.

- **Save.**

When Project Creation Form View is defined in a Project's or Template's Attribute Category, the custom view is loaded when a user creates a Project (based on that Project or Template). When this view is loaded, the whole page will look like one continuous form. See the result of the example configuration:





## Configuring Preview for Attribute Category

### Preview the Attributes in the document

You can view the preview of any documents in the **Preview** tab of the document, which is enabled by default to all users.

When you navigate to the Preview tab of the document, a dashboard is loaded with two blocks displayed side by side, namely

1. Attributes block on the left side and
2. Preview block on the right side

### Configure Preview Block

To configure the preview block to render, following attributes have to be created and configured:

Create Attributes	For
PREVIEW_TYPE	This text type attribute is to specify which type of preview user wants to see. It can hold value from a restricted set, which contains values CHILIPreview and StaticPreview.
PREVIEW_DOCUMENT	This document reference type of the attribute can hold a single HTML or Chili document to create preview.
LOCALE_#	Attributes to specify the locale index to prepare locale mapping for the languages. Create as many Locale attributes as per the number of languages you require.

In the **Preview > Attributes** , choose either of the following:

- **CHILI Preview:** This preview is applicable for Chili documents. When you enable this option, Chili viewer loads in the Preview block.



**Note:** You can view the Attributes and the Chili document in the preview mode, only if the option is enabled in the Chili set up. Read about Chili Setup [here](#). Admin user has to add the menu option for the required user groups.

- **Static Preview:** When this type is selected then the Preview block loads a HTML file and the values can be simultaneously updated.

### Update Preview Block with Attribute values change

When any update is made to the attributes, the matching text/image placeholders in the preview block are updated in real time.

You can update the values for the Chili document along with the attributes and save either as new version of the document or retain it as a draft.

### Delete an Attribute Category

WebCenter checks if an Attribute Category is being used before deleting it. If it is in use, you will be prompted to either clear the category from the projects or documents using it and delete the category, or to cancel the deletion.

1. Click **Admin > Attributes > Attribute Categories**.
2. Select the attribute category to delete and click **Delete Category** in the actions menu.

If the attribute category is not being used, it is deleted immediately.

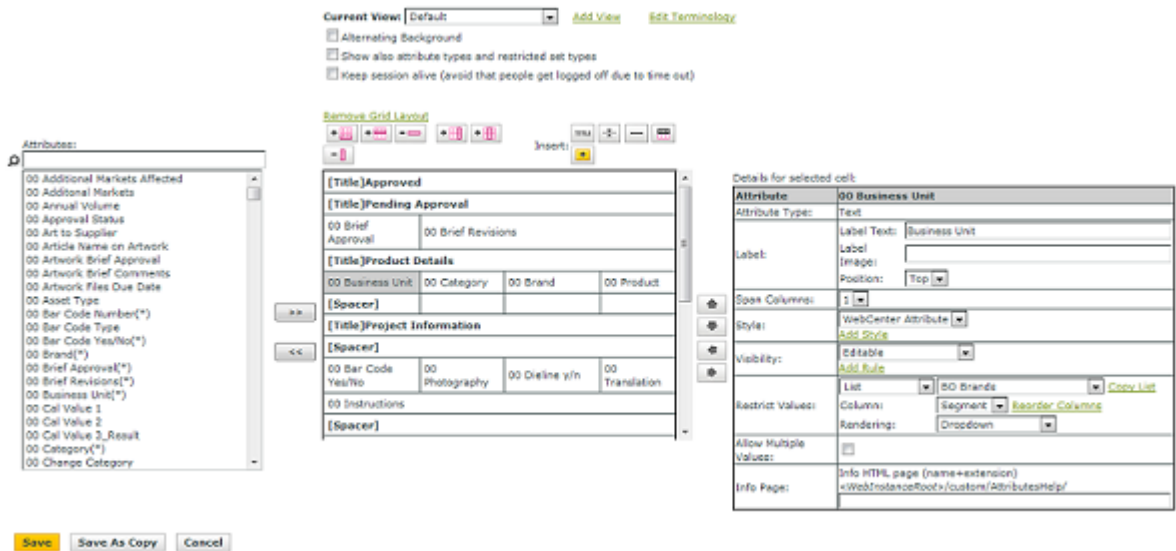
### Use a Grid Layout

Adding a grid layout to your attribute category allows you to customize the way your attributes will be shown to users.

It also provides more advanced features, like making an attribute required (users have to fill it in) or read only.

1. Click **Use Grid Layout** in the **Edit Category** page.

This shows extra options and buttons on top of your attributes column, and a **Details** table at right, containing information and extra options for the selected attribute.









2. Select **Alternating background** if you want your rows to have an alternating background color.
3. Select **Show also Attribute types and Restricted Set Types** if you want the types of the attributes / attributes restricted sets to be displayed after each attribute (like Business Unit in the example above).

When checked, pages having this attribute category or task specification layout will not keep the session alive. This allows you to fill out long forms without having to log in repeatedly.

4. Optionally enable **Keep Session Alive when user is inactive** to avoid getting timed out when there are signs of inactivity.

As long as the user is working on the form, the session will be kept alive. However, if the browser detects that the user is inactive, it stops keeping the session alive. When this flag is turned on, the session will be kept alive even if the user is inactive.

5. Add or remove columns and rows as desired:

- Click  to add a row at the bottom of the table.
- Select a row and click  to insert another row before it.
- Select a row and click  to remove it.
- Click  to add a column at the right of the table.
- Select a column and click  to insert another column before it.
- Select a column and click  to remove it.



**Note:**

6. If you want an attribute to be displayed across several columns, select it and enter the desired number of columns in **Span Columns** in the **Details** table.

**Edit Category Package Information**

Name:

Current View: Default

Alternating Background  
 Show also attribute types and restricted set types

Remove Grid Layout

Attributes:

- 132456
- another new attribute
- Area in sq ft or sq m
- Area in Sq in or Sq cm
- Area in Sq in or Sq mm
- AreaRS 222
- att in build 19
- attandspec
- attribute\_text
- Brand
- Brune's Attribute 1
- Brune's Attribute 2
- Comments
- ComponentID
- Country(\*)
- DateTimeRS
- deke1
- deke2
- deke3
- DLMS\_Code1

**Table:**

Product name	
Country	Length in inches or mm
	Number of Spot Colors

**Details for selected cell:**

Attribute	Product name
Attribute Type:	TEXT
Label:	Product name
Span Columns:	2
Row Size:	
Style:	WebCenter Attribute
Visibility:	Editable

**Preview**

Product name:

Country: ---Please Select---      Countries:       Length in inches or mm:



Number of Spot Colors:

- You have the option to have a cell to span over multiple rows. You can increase or decrease the row span in the **Row Span**. You can increase or decrease the row span for cells to have better layout.

The screenshot shows the 'Attributes' list on the left, with 'Product Description' selected. On the right, the 'Remove Grid Layout' dialog is open, showing a grid layout with 'Product Description' highlighted in red. The dialog includes a search bar, a list of attributes, and a 'Remove Grid Layout' button.

The screenshot shows a yellow warning message at the top: 'Attribute Category has changed since last Save'. Below the message are three buttons: 'Save', 'Save As Copy', and 'Cancel'. Below the buttons is a 'Preview' window showing a grid layout with 'Product Description' highlighted in red.


8. Format your grid as desired:

- To add a **Title** row, click  then fill in the **Title**, choose the number of **Columns to span** and the title **Style** in the pop-up that opens.
- To add a **Spacer** bar, click  then fill in the bar's **Height** and **Color** in the pop-up that opens.



**Note:**

- You can use color names or hexadecimal codes.
- If you don't enter a **Height**, the bar will have a default height.
- If you don't enter a **Color**, the bar will be white.

- To add a **Ruler**, click  then choose the number of **Columns to span** and fill in the **Height** and **Color** in the pop-up that opens.

- To add a **Header Bar**, click .

The example below has a **Header Bar** on top (showing **Name**, **Value** and **Type**), then a **Title** (Packaging information), a blue **Spacer** bar, and a black **Ruler** after two attributes.

*Preview*

Name	Value	Type
<b>Packaging information</b>		
Product name	<input type="text"/>	
Country	<input type="text" value="---Please Select---"/>	Countries
Length in inches or mm	<input type="text"/>	
Number of Spot Colors	<input type="text"/>	



**Note:** You can edit the formatting (color, height...) in the **Details** table at right when you select the cell.

- You can change how an attribute will appear to the user by giving it a **Label** (in the **Details** table). For example, you could use a label to show *Manufactured in:* instead of *Country*. This is particularly useful if the users are not familiar with your attributes, or if you are using generic attributes for different purposes.

If you set the labels on top for at least an entire column, you will have a nice form layout.

- Select the **Position** of the Label as either **Left** or **Top**.

By default, the **Label** will be placed on the left side in the grid. But you can place it on top of the value to modify the form appearance.

A single cell will contain both the Label and the Value. Within this cell, you can manage alignment via the style options.

### Component Type

- If you are using Date time Attribute, then you have an option to hide the time and display only the date by checking the box **Hide Time**.
- You can also format individual attribute cells using **Styles** (see [Define Styles](#) on page 345).
- If you are using Date time Attribute, then you have an option to hide the time and display only the date by checking the box **Hide Time**.
- If desired, change the visibility of individual attributes: select a cell and choose the **Visibility** parameter to use:
  - Choose **Editable** if you want the users (with the right permissions) to be able to edit this attribute.
  - Choose **Required** if you want to make it mandatory for users (with the right permissions) to fill in this attribute.

If a user doesn't fill in a **Required** attribute during project creation for example, he / she will not be able to save the project.

- Choose **Read Only** if you don't want **any** user to be able to edit this attribute.
- Choose **Hidden** if you don't want to show this attribute to users. The values will be deleted in this case.
- Choose **Hidden (Keep Values)** if you don't want to show this attribute to users but keep the value.



**Note:** You can also use visibility **Rules** to determine when an attribute will be hidden / required / read only... See [Set Visibility](#) on page 346.

15. Click **Save** when you are done.

### Define Styles

Define styles to further customize your attributes layout.

1. Select the cell of the attribute to customize.

This show the **Details** table at right.

2. Click **Add Style** to define a custom style.



**Note:** You can also use one of the predefined styles (**WebCenter Attribute** or **WebCenter Title**) if you want your attributes to have the default WebCenter look.

3. Define your style: enter a **Style Name**, a **Background Color** (use the color name or the hexadecimal code), choose a **Font Family**, **Font Style**, **Font Weight**, **Font Size**, **Font Color**.

You can fix the **Column width** of the first column to keep the titles aligned.

Set the **Column width** lower than what you want as there is some margin for the columns. The total table takes the full width of the allowed/available space (depending on the browser). Therefore fixing the width of one column has an effect on the other columns.



**Tip:** Do not fix the width of all columns as it will lead to unpredictable results.

Click **OK** to update the style for the attribute..

You can see your style applied to the attribute cell in the **Preview**.

To apply it to another attribute cell, select the cell then select the style in the **Details** table.

You can edit or delete the style using the links in the **Details** table.

### Set Style based on Rules

You can define styles for **Attributes** based on the rules set up.

This allows flexibility to display different styles based on the parameters defined in the rule. Rules can be set up with JavaScript or an Attribute value for both Styles and Visibility Rules. Style rules can be set up in the same way as visibility rules, except for the then and else section, where styles should be selected instead of visibility.

For example,

```
if (return att["Attribute1"] + att["current"] + att["Attribute3"] < 100) then the cell is green, else, the cell is red.
```



**Note:** You can create a rule based on the value of the **Current Attribute**. In a style rule, **Current Attribute** is used to actually execute.



**Note:** Once you have defined a style in the **Default** view, you can use it in the **Creation** view, and vice-versa.

### Set Visibility

If you want an attribute to be hidden or required or read only, depending on a condition, you should define a visibility rule for this attribute.

A rule makes the visibility of an attribute depend on one or more other attributes or a JavaScript snippet.

1. Select the cell of the attribute for which you need a visibility rule.

This show the **Details** table at right.

2. Click **Add Rule** to define a new visibility rule.

3. In the **Edit Rule** pop-up that opens, give your rule a name (choose a name that indicates what the rule does).



4. Define your rule.

For example, you want the attribute `Number of samples` to only be visible (and filled in) if the `Sample Needed` attribute is set to `Yes`.

- a) You need to first define the condition: **If The value of attribute** `Samples Needed` = `Yes`.
- b) Then define what happens when this condition is fulfilled: **The cell is:** `Required`.
- c) Then define what happens when it is **not** fulfilled: **Else, the cell is** `Hidden`.

Area in sq ft or sq m	Length in in
Brand	Country
due date	Comments
Samples Needed	
Number of samples	

**Edit Rule** ✕

Rule Name:

If The value of attribute Samples Needed = Yes And

The cell is : Required

Else, the cell is Hidden

OK
Cancel

5. You can edit the Visibility rules and Styles rules based on Java Script rules. Instead of choosing an attribute value, you can add a JavaScript code snippet to create a rule for visibility or styles. This allows more flexibility and can have customized rules apart from the attribute values. Read more on how to set [Edit Styles / Visibility based on Java Script rules](#) You can also add chain rules for styles, where the conditions can be linked based on rules. Read more about [Chained rules](#).

6. Click **OK** when you are done defining your rule.

The **Preview** is updated to reflect the result of your rule.



**Note:**

The **Preview** is interactive: in the example above, you can choose `Yes` for the `Samples Needed` attributes in the **Preview**, and see the `Number of samples` attribute displayed. You can choose `No` (or nothing at all) and have that attribute hidden.

To apply the rule to another attribute cell, select the cell then select the rule in the **Details** table.

You can edit or delete the rule using the links in the **Details** table.



**Note:** Once you have defined a rule in the **Default** view, you can use it in the **Creation** view, and vice-versa.



**Note:**

You can create more complex rules by clicking the **And** link to add more conditions. Choose **AND** if **both** conditions should be fulfilled, or **OR** if **at least one** of them should.

**Edit Rule**

Rule Name:

If The value of attribute  =  And ✕

The value of attribute  =  And ✕

The

Else, the cell is

You can define very complex rules if necessary.

In the example below, a warning message is made visible (but read only) when somebody requests more than 10000 samples or asks for more than 4 spot colors.

The warning message itself can be a title or an attribute (that you can use in several attribute categories).

**Edit Rule**

Rule Name:

If The value of attribute  =  And ✕

The value of attribute  >  And ✕

If The value of attribute  =  And ✕

The value of attribute  >  And ✕

The cell is :

Else, the cell is



**Note:** You can add styles to based on the result of your rules set. Read for detailed explanation [Rules for Style and Visibility](#)

**Style Rule based on Attribute Value**

For example, If <Attribute Value (choose from the drop down) = X > then the style = **(Style Name A, else Style Name B)** where Style Name A and Style Name B are predefined

### Change Cell Details for Multiple Cells

In the grid layout, when you click on a non-empty cell, details are shown to the right of the grid. You can change the details of multiple attributes by choosing the cells using CTRL /CMD and SHIFT keys or selecting individual attributes holding the CTRL key.

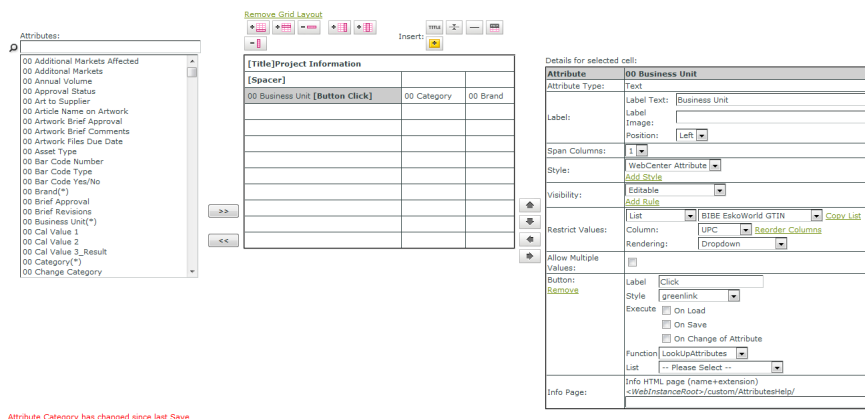
When multiple attributes are selected, only the details that are relevant for the selected cells are shown.

When the values of all the selected attributes are the same for an option, it is displayed in the details. A blank value is shown if the selected cells have different values. When selecting a value, and it is applied to all the selected cells.

### Enhancing Attributes with Advanced Features from Grid Layout

You can enhance the attributes from the **Grid layout** view. You can restrict values to available cascading attributes, create multi-value attributes, add label images and add HTML help to the attributes.

- Click **Use Grid Layout** in the **Edit Category** page.
- You can add [LookUp Attributes](#) on page 350 button next to your Attributes in your form.
- Click on any of the attributes. Its details will appear on the right side.



- **Label Image:** You can add a representative image as a label image. Read more in [Create Image Label for an Attribute](#) on page 356.
- **Restrict Values:** You can restrict values to **list** containing [Cascading Dropdowns](#) as **columns** and select their **rendering**.  
You can also [create check boxes, radio buttons and image selectors for text type list attributes](#).
- **Allow Multiple Values:** You can allow more than one value to an **attribute**. Read more in [Create a Multi-Value Attribute](#) on page 358.
- **Info Page:** You can provide additional information in an HTML page. Read more in [Create HTML Information for an Attribute](#) on page 359.


### LookUp Attributes


You can use **LookUpattributes** button to fill multiple attribute fields based on one or more input attributes without a cascading dropdown. You can configure the list in the details of this button. You do not have to restrict individual attribute values to a list when using this button.

You can create a better user experience with this feature if a lot of properties must be loaded for something already well-known / unique. The typical example is loading product details or component details when you enter the product code. In this case, when you type the code and click the button, you will get all its details filled.

When you have partial / non-unique information, use [Cascading Dropdowns](#).

1. [Create and add attributes to an Attribute Category](#).
2. Select your **attribute** in the [Grid Layout](#).
- 3.

Click on the LookUpAttributes  button to add it next to the selected **attribute**. You will see the **Button** details in the **Details of selected cell** table.

Button: Remove	Label	<input type="text" value="Click"/>		
	Style	<input type="text" value="buttonprimary"/>	▼	
	Execute	<input type="checkbox"/> On Load		
		<input type="checkbox"/> On Save		
		<input checked="" type="checkbox"/> On Change of Attribute	<input type="text" value="NAPR_ATT4"/>	▼
	Function	<input type="text" value="LookUpAttributes"/>	Add Attribute	
	List	<input type="text" value="ALL_LANGUAGES_1"/>	▼	
Add Input Attribute				
Add Output Attribute				

4. Modify the **button**'s details.

- You can specify the **Label** text you want to display next to your button.
- Pick a **Style** for the button to change its look.



**Note:** If you choose **Hidden**, you can **Execute** the button :

- **On Save**
- **On Load**
- **On Change of Attribute** where you need to specify the attribute

- Select a **list**.



**Note:** You can use the [lists created on the WebCenter database](#).

- Set **Function** to **LookUpAttributes**.
  - Add one or more **Input Attributes**. Select the attribute from a list of attributes in your category and match it to the right **list Column**. Click on **Add Input Attribute** to add more.
  - Enable **Exact** to only allow exact matches. For example, if the input attribute is country name and if you type Belg, you can get Belgium if the **Exact** is off. If this is on, you will find country details only if you type Belgium entirely.
  - Add all the **Output Attributes**. Select the attribute from a list of attributes in your category and match it to the right **list Column**. Click on **Add Output Attribute** to add more. This will correct your (typed) input attributes to the official value. If you type Belg and click the button, the entry value will be Belgium. This will also add the other details associated with this attribute.
5. You can now test the button and **save**.

### Check Unique Values

This feature allows you to create a unique name for a component. It helps to create names which are different from existing names.

However, this is not useful if you are creating pure numbers (where you expect auto-numbering). Use auto-numbering in such cases.




**Note:**


This function does not guarantee that the values are unique throughout the system.

1. [Create and add attributes to an Attribute Category](#).
2. Select your **attribute** cell in the [Grid Layout](#).



**Note:** This function does not work for date attributes or rich text attributes. You will be warned if you use any of these types.

3. Click on the **Add button**  icon to add it next to the selected **attribute**. You will see the **Button** details in the **Details of selected cell** table.

<p>Button: Remove</p>	<p>Label <input type="text" value="Check if Unique"/> </p> <p>Style <input type="text" value="buttonprimary"/></p> <p>Execute <input type="checkbox"/> On Load  <input type="checkbox"/> On Save  <input type="checkbox"/> On Change of Attribute</p> <p>Function <input type="text" value="CheckUniqueValue"/></p>
<p>Info Page:</p>	<p>Info HTML page (name+extension)                  &lt;WebInstanceRoot&gt;/custom/AttributesHelp/  <input type="text"/></p>

4. Modify the **button's** details.
  - You can specify the **Label** text you want to display next to your **attribute**.

- Pick a **Style** for the button to change its look.
- Set **Function** to **CheckUniqueValue**.

5. Now **save**.



**Note:** This function is difficult to test via the preview because the checks are done based on the current project, document or task. In the preview, you have no document, project or task.

In a project attribute category, it checks whether the filled out value already exists for another project in the system. If yes, you will be warned that it is not unique. The function will force you to choose another value before you can save the attributes or create the project (during project creation).

In a document attribute category, it checks whether the filled out value already exists for another document in the system.



**Note:** This function does not check the versions of the current document. So multiple versions of the same document may share the same attribute value.

In a task type, it checks whether the filled out value already exists for another task of any task type.



**Note:**

This verification happens when you click the button or when you save the checked attribute. This check will not happen if you change the attribute in any of following ways:

- via a system integration (WebCenter SDK)
- via Automation Engine
- when changing a group of attribute values via the project saved search operations
- when setting the attribute via a workflow
- when setting the attribute via ArtiosCAD

The check button must be in the visible view. This way you can have a check which only happens during creation or in a task type view.



**Note:** A unique value for a task does not guarantee that this value does not exist for a project. So this function is not of use while using **automatically set project attribute values from task specifications**.

### Create JavaScript Button

A JavaScript button allows you to create a powerful additional functionality within a WebCenter form.



**Warning:** This is an advanced feature and we recommend that only Esko solution architects and advanced administrators use this.

Use this to:

- execute a calculation within the form
- copy information from a project to a document created in the project
- automatically fill out values for attributes (which are specified as read-only)



**Note:**

The JavaScript operation is done within the form. However, this may not be automatic in all cases. For example, when you copy project attribute values to documents, the JavaScript execution happens once. When the project attribute is changed, the document attribute will not be synchronized until the button is clicked again. This avoids issues related to full synchronization.

Read JavaScript examples in the [Esko Knowledge Base Article](#).

Button: Remove	Label	Brand
	Style	buttonprimary
	Execute	<input type="checkbox"/> On Load <input type="checkbox"/> On Save <input checked="" type="checkbox"/> On Change of Attribute <div style="display: inline-block; border: 1px solid #ccc; padding: 2px; margin-left: 5px;">                 X Brand             </div> <span style="margin-left: 100px;">Add Attribute</span>
	Function	JavaScript
JavaScript Code	<pre>if ( att['BrandValue'] != "XYZ" )     att['Marketing'] = "No";</pre>	

In the screen shot, you can see a simple script in the **JavaScript Code** field.

`docref["Document Reference Attribute Name"]` could be used to access the attributes of a referenced Document.

- Do not return a value but set the value of `att['MyAttribute']`
- All attribute names must be surrounded by single quotes
- All attribute names are case sensitive
- Use the attribute name. This can be different from the attribute label visible in the form
- The property `att` is case sensitive.
  
- Technical info: `att` is an associative JavaScript array containing a copy of the current values for all placed attributes. At the end of the execution, (only) the changed values are copied back into the form.



**Note:**

- Use this only if you know JavaScript and its use. Consult your Esko Solution Architect in case you need JavaScript operations.
- The function is protected against misuse by only allowing to change attributes contained in the current attribute category. This also shows message boxes. The function cannot change any other data in WebCenter (for example it cannot execute web calls).

**Advanced JS Button features**

JavaScript Buttons can be programmed to access attributes of the referenced Document.

- `docref["Document Reference Attribute Name"]` could be used to access the attributes of the Attribute Category of a referenced Document.

This operator returns a JavaScript object with following properties:

```
count
```

Number of documents referenced by the selected Document Reference

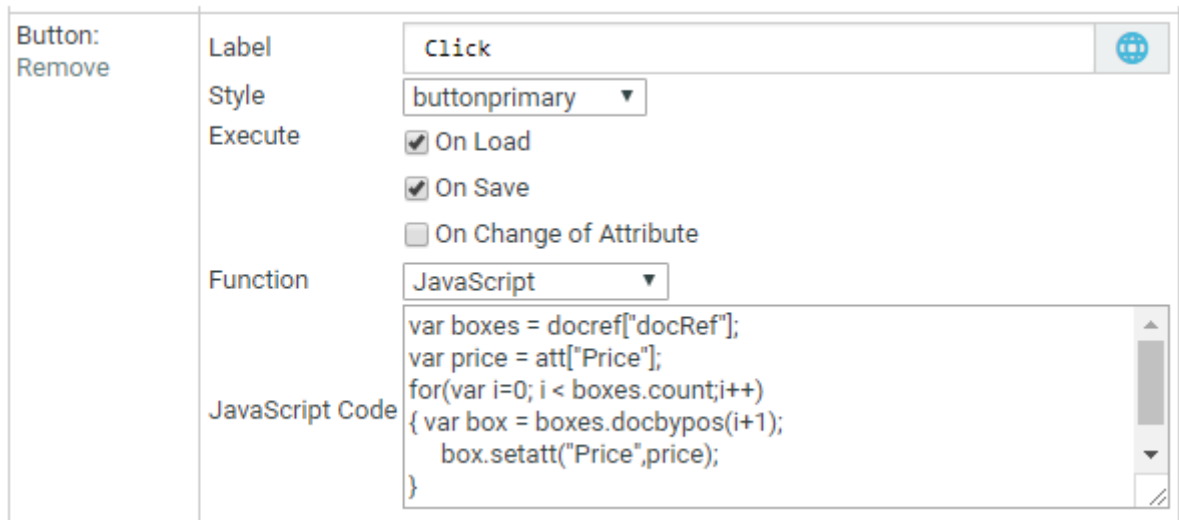
```
docbyname("Name of the Document") or docbypos(Position of the document)
```

Returns a JavaScript object representing the Attribute Category of the selected Document.

Properties of the Attribute Category object of the selected Document:

Property	Description
<code>att["attribute name"]</code>	Get the value of the specified attribute.
<code>setatt("attribute name", "value")</code>	Set the value of the specified attribute
<code>prop["reference property name"]</code>	Get the value of the referenced property
<code>setprop("reference property name", "value")</code>	Set the value of the referenced property

For example, the sample scripts below, shows how to push an attribute value to an attribute in the attribute category of all the referenced documents.



All the documents being referenced, are gathered using `docref["docRef"]` and stored in the `boxes` variable.

The for loop iterates over all these documents and for every document it updates the "Price" attribute in the attribute category.



- Another operator that was introduced for this functionality is "parent". It allows you to work with the parent Attribute Category (Category from where current Document is being referenced).

It returns a similar JavaScript object as "docref" with the following properties:

Property	Description
att["attribute name"]	Get the value of the specified attribute.
setatt("attribute name", "value")	Set the value of the specified attribute
docref["Document Reference Attribute Name"]	allows to go to the Attribute Category of a referenced Document
parent	allows to go to the parent Attribute Category (Category from where current Document is being referenced)

For example, the sample script below shows how to push an attribute value to a parent attribute category.

Button:  
Remove

Label

Style

Execute  On Load  
 On Save  
 On Change of Attribute

Function

JavaScript Code

```
var newVal = "My new value";
parent.setatt("text",newVal);
```

Using both operators in combination makes it possible to iterate over the whole tree of Attribute Categories of referenced Documents.



**Note:**

1. It is not possible to change the value of Document reference attributes
2. It is not possible to access / change attributes that are not loaded on the page at the time the JavaScript Button is executed.
3. The expected result of the JavaScript logic should not be dependent on the order in which the JavaScript Buttons are executed.

You can access some basic information about the Referenced Document as follows

Property	Retuns the referenced document's
docRef.docposition	Document position
docRef.docname	Document name
docRef.docid	Document id

Property	Returns the referenced document's
docRef.docdescription	Description of the document
docRef.docversion	Number/index of the document version, not its ID (1st version -> 1, 2nd version -> 2, ...)
docRef.projectid	ID of the project, where the referenced document resides. (Helpful to find if the referenced document is linked to more projects)
docRef.projectname	Name of the project with docRef.projectid ID. Note this information might not be available in some cases and can return an empty String.

You cannot change the properties of a referenced document by assigning it a new value within JavaScript button script. They are read-only values.

For additional information on accessing document references and reference properties with JavaScript buttons, see [this](#) Knowledge Base article.

### Create Image Label for an Attribute

You can create Project request forms or Order forms with graphical labels by setting image labels for specific **Attributes** in an **Attribute Category**. You can use this feature to make the form visually attractive and user friendly. In addition, you can add graphical (packaging) symbols and warnings to aid the user while filling in the forms.

1. Add the label images to the following folder on the WebServer: `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom\AttributeLabelImages`.

Create a new folder `custom` if it does not exist yet and create a folder named **AttributeLabelImages** under this folder.



**Note:**


- For the best user experience, use .jpg images. It does recognize .gif, .jpeg and .png.

2. Open your **Attribute Category** and select the **Attribute** for which you want to give an image label.
3. In the cell details, enter the correct image name including the extension in the **Label Image** field and save your attribute category.

Remove Grid Layout

NAPR_TASK_ATT1	NAPR_TEXTATT_2
vira_res_8155	MAKE PROJECT THUMBNAIL
napr_yes_no	napr_rich1
napr_docref_latest_version	NAPR_TEXTATT_3 [Button Click]
NAPR_ATT4	Text
NAPR_ATT6	


<b>Attribute</b>	NAPR_TASK_ATT1
Attribute Type:	Text
Label Text:	NAPR_TASK_ATT1
Label Image:	Danger.jpg
Position:	Left
Custom Unit Label	
Span Columns:	1
Span Rows:	1
Style:	WebCenter Attribute
Style Rule:	No Rule
Visibility:	Editable
Restrict Values:	Restricted Set: NAPR_RES1
	Rendering: Dropdown
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <Web/instanceRoot>/custom/AttributesHelp/


 **Note:** The image name is case sensitive.


You can see image labels appearing instead of attribute names in the forms.


### Regulatory Input / Briefing

Packaging Symbols











Packaging Code	Barcode type	Barcode	Approved for Use?
*	*	*	*
<input type="text"/>	---Please Select---	<input type="text"/>	---Please Select---

Required Legal Disclaimers / Warnings

[Show Rich Text Controls](#)

 **Tip:** In case you wish to display a check box for the **attribute**, make sure you use an **attribute** with a **restricted set** containing only the values Yes and No.

 **Note:** You can either have a text label or an image label, but not both.

### Create a Multi-Value Attribute

There are situations when you are creating a new Project or filling in a Form, more than one value needs to be added as an **attribute**. For example, if you are producing a packaging that is intended for more than one market, you need to specify those markets as values in the respective attribute field. You can use a multi-value attribute for this purpose.

- Open your **Attribute Category** and select the **Attribute** for which you want to give more than one values.
- In the **Details for the selected cell** table (in the **Grid layout** ), enable **Allow Multiple values**.

Move Grid Layout

Insert:

PR_TASK_ATT1	NAPR_TEXTATT_2
_res_8155	MAKE PROJECT THUMBNAIL
or_yes_no	napr_rich1
or_docref_latest_version	NAPR_TEXTATT_3 [Button Click]
PR_ATT4	Text
PR_ATT6	

<b>Attribute</b>	NAPR_TASK_ATT1
Attribute Type:	Text
Label:	Label Text: <input type="text" value="NAPR_TASK_ATT1"/>
	Label Image: <input type="text" value="Danger.jpg"/>
	Position: <input type="text" value="Left"/>
	Custom Unit Label: <input type="text"/>
Span Columns:	<input type="text" value="1"/>
Span Rows:	<input type="text" value="1"/>
Style:	WebCenter Attribute <input type="text"/> <a href="#">Add Style</a>
Style Rule:	No Rule <input type="text"/> <a href="#">Add Style Rule</a>
Visibility:	Editable <input type="text"/> <a href="#">Add Rule</a>
Restrict Values: <a href="#">i</a>	Restricted Set: NAPR_RES1 <a href="#">i</a>
	Rendering: <input type="text" value="Dropdown"/> <a href="#">i</a>
Allow Multiple Values	<input checked="" type="checkbox"/>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/ <input type="text"/>

In your Project (as a form), you will have the particular attribute with an option to select more than one (or all) values in its response field. See an example below.




**Note:**

Simple text attributes were limited to 255 characters until WebCenter 14. There is no character limitation from WebCenter 14 onwards. This allows for unlimited attribute values for a single multi-value attribute.

**Create HTML Information for an Attribute**

When you design Project request forms or new Order forms, you might want to provide additional information to the user who is filling in the information.


From WebCenter 12 onwards you can provide additional information as HTML help or information. This is especially useful when technical fields need to be supported with extended HTML help.

There will be an information  icon that is added next to the attribute name or attribute image label. When the user clicks on this icon, a pop-up HTML page with the information will appear.

1. Create an HTML file with the additional information you want to provide along with the attribute. You can create textual information as well as images to explain the attribute.
2. Place this HTML file in the AttributeHelp folder ( WebCenter\WebServer\tomcat\webapps\WebCenter\_Inst\custom\AttributesHelp ).
3. Open the **Attribute category** and select the **attribute** for which you want to provide HTML help or information.
4. In the cell details, enter the correct file name (of the HTML file) in the **Info Page** field and save your **Attribute Category**.

Details for selected cell:


Attribute	w2p-Finishing
Attribute Type:	Text
Label:	Finishing
Label Image:	
Span Columns:	1
Style:	WebCenter Attribute <a href="#">Add Style</a>
Visibility:	VisibilityRule <a href="#">Add Rule</a> <a href="#">Edit Rule</a> <a href="#">Delete Rule</a>
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/ sheet-and-roll.html

If you have an HTML information page linked to an **attribute**, you can see an information icon next to the attribute in the form that you created. When you click on the information , you can see a pop-up window with the information to help the User.


**▼ Order Information**

---

**Is this an Order?**



**Approval Required Before Print?**



---

Label Shape --- ▼


Quantity

---

Varnish --- ▼

Specialties --- ▼

---

Finishing\*  --- ▼

---

**Add More Information?** No ▼

**Create Project**



### Check box, Radio button and Image selector in your Attribute Category

You can decide the **rendering** of choices for a **restricted set** (text) and for **list** attributes (text). The default **rendering** is a drop down with the options. You can show the options as :

- simple radio buttons or check boxes
- radio buttons or check boxes with images

This allows your users to see the options more clearly than in the case of a drop down.

#### Create Radio buttons and Check boxes

When you have a few options as the value for an attribute, you can present the options via radio buttons or check boxes instead of a drop down.



**Note:** Avoid doing this when you have a lot of options to select from. The form will load slow.

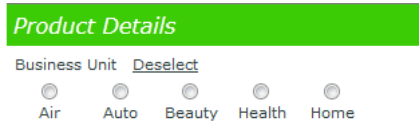
1. [Create and add attributes to an Attribute Category.](#)
2. Select your **attribute** in the [Grid Layout](#).  
An item **Restrict Values** will be visible in the **Details** section.
3. Select the **Rendering** as **Radio / Checkboxes**.

Details for selected cell:

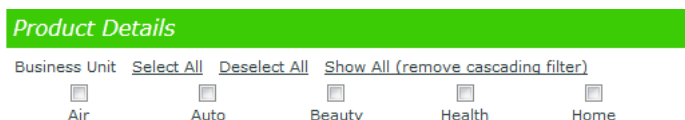
<b>Attribute</b>	<b>00 Business Unit</b>
Attribute Type:	Text
Label:	Label Text: Business Unit Label: <input type="text"/> Image: <input type="text"/> Position: Top <input type="button" value="v"/>
Span Columns:	1 <input type="button" value="v"/>
Style:	WebCenter Attribute <input type="button" value="v"/> <a href="#">Add Style</a>
Visibility:	Editable <input type="button" value="v"/> <a href="#">Add Rule</a>
Restrict Values:	List <input type="button" value="v"/> BO Brands <input type="button" value="v"/> <a href="#">Copy List</a> Column: Segment <input type="button" value="v"/> <a href="#">Reorder Columns</a> Rendering: Radio/Checkboxes <input type="button" value="v"/> Columns: 6 <input type="text"/> Alignment: Distribute over Width <input type="button" value="v"/> Labels: Below <input type="button" value="v"/>
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/ <input type="text"/>

In the Attribute Category Preview, you will see a set of checkboxes or radio buttons depending on the items in the restricted set or valid items in the list column.

You will get Radio buttons for a single-value attribute.



You will have check boxes for a multi-value attribute. Select the **Allow Multiple Values** option for this.



**Note:**

This is optimized for non-cascading type of restricted sets. You may also use them for cascading dropdowns with limited values. Avoid using it when more than two attributes cascade.

Do not use this option for **lists** with thousands of rows.

**4.** Select the **Column** numbers, **Alignment** and the **Label** position.

You get the best user experience when the number of columns equals the number of allowed values or one of its dividers. If you restrict it to one **column**, you will get a vertical array.



**Product Details**

Business Unit [Select All](#) [Deselect All](#) [Show All \(remove cascading filter\)](#)

- Air
- Auto
- Beauty
- Health
- Home

By default the columns will be aligned as per the **Distribute over Width** option. You can choose to align to the **left** or **right** depending on the appearance you prefer.

**Create Image Selectors**

You can use images just like [Radio/Check boxes](#).

1. [Create and add attributes to an Attribute Category](#).
2. Select your **attribute** in the [Grid Layout](#).  
An item **Restrict Values** will be visible in the **Details** section.

Restrict Values:	Restricted Set:	FC_Sizes
	Rendering:	Images
	Columns:	6
	Alignment:	Distribute over Width
	Labels:	Below
	Height of Images:	100 pix
	Height of Cell:	pix
	Image Type:	jpg

3. Select the **Rendering** as **Images**.

- The images must be placed on `webinstance\custom\AttributeValueImages`. You can use the same images used in the Asset Browser as selectors.



**Note:** The image names are case sensitive.



**Tip:** You can create Push Through Configurations to access the AttributeValueImages, AttributeLabelImages and AttributesHelp on the Web Server. This way your users do not have to access the web server to customize the attributes.

- **Height of Images:**

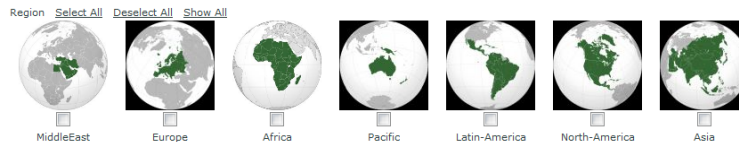
You can resize the images by adjusting the height. By default, resizing is always done proportionally and to 100 pixels. You can get high quality images when you create images with the sizing specified here.

- **Height of Cell:**

The grid of images can take a lot of screen space. If you want to limit the space use and use a scroll bar, limit the height of the cell. In this setting, the cell will have a fixed height and a scrollbar when the needed size to show all images extends to given height.

- **Image Type:**

You can choose the **Image Type** as **automatic** to display any of the image types. However, we recommend that you select an **Image Type** in this field.



**Troubleshooting**

- **When you do not see any images at all :** Verify the path where the images are located. If you have multiple web server instances, you must have the images on each instance (or at least on the instance where you try).



**Note:** Do not put your images for image selectors in the `AttributeLabelImages` folder.

Check the extension of the images.



**Note:** The name and the extension are case sensitive.

- **When some images are missing:**

Verify if there are any special characters. Avoid all the special characters (comma, %, ...etc) except space.

Check leading and trailing spaces and number of spaces in the names.

**Restrict Attribute Values to Previously Selected Values**

To setup a practical way to make a final selection from a previously made/calculated list of candidates, a new function has been introduced.

It applies to attribute categories or task specifications with a grid-layout having a first multi-value attribute (attribute A) and a second simple text, non-restricted set attribute (attribute B).

The result is Attribute B is restricted to the selected values of attribute A

This can be set up only by administrators and used by all users who can edit attributes.

Usage:

Select Attribute B in the grid layout. In the cell details, set the Restrict Values selector on Attribute. This will display a dropdown with candidates for attribute B (this list is all plain-text multi-value attributes).

Restrict Values:	Attribute ▼	-- Please Select -- ▼
Allow Multiple Values:	<input checked="" type="checkbox"/>	<div style="border: 1px solid black; padding: 2px;">             -- Please Select --              Board              Country           </div>

Select one of the candidates. This results in a behavior as shown in the below example: Final Country (which is attribute B) is restricted to the selected values for Possible Country.

Possible Country

Denmark  
 France  
 Germany  
 Ireland

Final Country

---Please Select---  
 ---Please Select---  
 Denmark  
 France  
 Germany  
 Ireland

**Details/Limitations:**

- This function only works in grid layout
- Attribute A and B must both be plain text attributes. Attribute A can be a restricted set or a plain text attribute (typically linked to a cascading dropdown).
- Attribute A must be multi-select
- Attribute B cannot be a restricted set or linked to a cascading dropdown
- Attribute B can still be multi-value, so you can select multiple values from the selected values of attribute A
- In search, attribute B is NOT shown as a dropdown, so it behaves as a simple text
- The dropdown only appears when the attribute is editable, else the selected value(s) is/are simply displayed as for a plain text attribute
- Auto-select: When attribute A has only 1 value selected, this value is automatically selected for attribute B.
- Auto-deselect: When attribute B has a value and attribute A's values are changed so that the value for attribute B is no longer a selected value for attribute A, the value for attribute B will be de-selected. In case attribute B is multi-value, this logic is applied to each value separately.
- It is allowed that attribute A is itself restricted by yet another attribute.
- This function works identically for task specifications
- It is allowed to set visibility rules on both attribute A and attribute B
- When attribute A is taken away from the attribute category or if it is deleted from the system, attribute B becomes a plain text attribute. All set values are however remembered (even if they are multi-value, they will be displayed in their base form "value 1 | value 2").

- When no values are selected for attribute A, nothing is displayed for attribute B (no empty dropdown either).

### 3.15.4. Cascading Dropdowns

Cascading Dropdowns contain a set of dependent attributes. The choice of one attribute limits the choice of other attributes in these Dropdowns.

These attributes will be visible as a drop down while building your forms and projects. This allows you to customize and build intelligent forms. Using these, you can:

- retrieve relationships among values (for example, brand-sub brand roles).
- auto-fill the values depending on the relationship (if you select a brand, a brand description will be filled in).
- do smart filtering (if you select a brand, you can filter the products that are available under the brand).
- use in advanced searching (Asset Browsing). Read more in [Asset Browser](#) on page 220.
- **Look Up attribute values** buttons in attribute categories and task type specification forms.

#### Lists

**Lists** contain a set of dependent attributes imported into WebCenter. The Lists data is added to the WebCenter database and maintained in a WebCenter Project or Template. Therefore, you can modify this data from WebCenter interface.

Also, you can control the access to this data by setting project permissions.

#### Adding a new List

- Upload your Excel (either .xls or .xlsx) or XML document to a project or template named **ListManager**. If this project does not exist yet, create a new project named **ListManager**. In this project, you can create folders for different departments, setup approval cycles to approve your lists before it is fully configured.



**Note:** If you are uploading your lists to the **ListManager** template, only your administrators can see the lists.

- Go to the **Admin > Attributes > Lists** page.
- Click **New List**. You will see the **New List** configuration page.
- **General List Information:** Specify the **List Name** and a **Description**
- **Input Source Properties:**
  - Specify the **Input Source Type**. It can be either **Excel** or **XML** document. The **Select Document** drop down will list the Excel or XML files uploaded to the `ListManager` project.
    - **Excel:** Select the input Excel file from the **Input Source Type** drop down. Specify the **Sheet Name** of the Excel sheet containing the List data.
    - **XML :** Select the input XML from the drop down and specify the **XML Main Node**.

- a) You may enable the **Flush existing list data before updating the list** option to clear the old data from the List before updating with new data.

With this option on, whenever you upload a new version of the Excel / XML input document, the data from the List will get deleted before the List data gets updated.

- b) You can enable the **Database user name and password are required when deleting data from list** as a security measure.

If you have enabled this, you have to specify a database user who has the permission to change the database schema. The database SA (System Administrator) user can also change the schema.



**Important:** We recommend that you enable this option to avoid accidental deletion of Lists and List Data.

- **Log File Folder:** Select this from the drop down listing the folders in the **ListManager** project. This folder will contain the log files associated with individual Lists. The respective log files gets updated when you add or modify List data. You can also set permissions for this folder so that only your administrators can access the logs.
- **Database info:**
  - **Create new database table for storing the data:** Select this when you want a new database table for your list.

When this is selected, a WebCenter database table is created whenever you create a new List. You need to specify the database user credentials to be able create new database tables.



**Note:**

If you check the **Use the built-in 'webcenter' database user account to create the database table**, the SA user has to give the database **Create Table** rights to the default 'webcenter' user account. In this case, you do not have to specify the database SA user credentials for creating new list tables.

- **Use an existing database table for storing the data:**

Specify an existing table in the WebCenter database for storing the List data. The columns in this database table and your List need to match. You do not have to specify database user credentials to use an existing table for creating lists.
- **List Properties:** You can configure your **Input Columns** in the **List Properties** table.
  - Specify the columns relevant for the List here by selecting or deselecting.
 

By default, the column names of the database table will be the same as the input column names. You may also change the Column names.



**Note:** The List column names should be unique.

- You can select a particular column as **Unique Identifier**. When you enable this, each value in this List column has to be unique (for example, Product Names). It is possible to select more columns as **Unique Identifiers** ( for example, Product Name-Product Variant combination).



**Tip:**

If you have selected more than one **Unique Identifier** columns, the combination of the values in these columns have to be unique. For example, in the case of Product-Variant combinations, you can have the same Product name repeated for each of its Variants.



**Note:** When you are updating the list, make sure that the new data matches the **Unique Identifier** column. If the new data does not match the identifier values, new rows will be created. This does not apply if you have enabled the **Flush existing list data before updating the list** option.

- Click **Create List**.

The Lists are displayed in the Lists overview page. Clicking on a specific List will lead to the [List Details](#) page. You can [inspect your List data](#) here.



**Note:** If you update the source XML or Excel document, the List Data will get updated.

**Purging Lists**

The document linked to a list can have newer versions created. When there are more than thirty thousand (30000) new versions of the document that is linked to the list, the older versions of the list up-to 20000 ( that is 1 to 20000 ) are purged. This is to make space for the newer versions to be stored.



**Note:** Document versions can be linked into different projects. When purging, WebCenter will check if any of the purged versions of the document is linked into a project. Documents versions that are linked into a project are not purged.

**Inspecting List Data**

- Go to the **Admin > Attributes > Lists** page.  
The Lists overview page displays all the existing Lists. The source document and the creator's name is also listed in this page.
- Click on the name of the List you want to inspect.
- In the [List Details](#) on page 368 page, click **Show List Data** to see all of your list data.  
You can filter on a list column with a specific value to make the inspection easier.
- Click **Return to List Overview** to return to the general **Lists** overview page.

**List Details**

The List Details page contains an overview of the following :

- General List information
- Input source properties:  
Use the Excel/XML **Document** link is to view the document's action history.  
You can also access the **Log file** from the respective link.
- List properties

You can:

- [inspect a list's data](#) by clicking on **Show List Data**

- [delete a list or its data](#)

### Unique Identifier

You can select a particular column as **Unique Identifier**. When you enable this, each value in this List column has to be unique (for example, Product Names). It is possible to select more columns as **Unique Identifiers** ( for example, Product Name-Product Variant combination).

**Tip:**

If you have selected more than one **Unique Identifier** columns, the combination of the values in these columns have to be unique. For example, in the case of Product-Variant combinations, you can have the same Product name repeated for each of its Variants.



**Note:** When you are updating the list, make sure that the new data matches the **Unique Identifier** column. If the new data does not match the identifier values, new rows will be created. This does not apply if you have enabled the **Flush existing list data before updating the list** option.

### Deleting a List or List Data

You can remove an existing **List** completely from the system or remove only the **List** data.

1. Go to the **Admin > Attributes > Lists** page.
2. Click on the **List Name** from the **Lists** table.  
This will lead you to the List configuration page.
3. Choose either the **Delete List Data** option or **Delete List** option.
4. Enter the **Database User name** and **Password** if required.  
If you are deleting one of the Lists, you always have to enter the database user credentials.



**Note:** If you are deleting the List Data, you have to enter the credentials only if the **Database user name and password are required when deleting data from list** option was enabled while creating the List.

5. Click **Delete List** or **Delete List Data** to confirm.

**Note:**

The deletion does not check if the List being deleted is in use by any of the attribute categories. This will result in malfunctioning of the features using that attribute category.

To restore the affected attribute category, create a List with the same name as the deleted List.

To restore your deleted List Data, update the corresponding input file in the Listmanager project with a new version.

### Using Lists as Cascading Dropdowns

Cascading Dropdowns can be configured, using Lists.

1. [Add and configure your List.](#)

Go to **Attributes > Attribute Categories** or Task type specification form and click on any text attribute field.



**Note:**

- Make sure you are in **Grid Layout**.
- Bring a text **attribute** into one of the cells.
- Make sure that it is not a **restricted set**. You cannot view the lists of cascading attributes in the **restricted sets** category.

An item **Restrict Values** will be visible in the **Details** section. You can see the cascading attribute lists based on the web server (if any) and the database lists as **lists**. These are now available for use in your **Projects** and **Forms**



**Note:** You cannot re-use a column of a list in more than one attributes belonging to one attribute category. *You can replicate the list temporarily to add the same column to another attribute of the same attribute category.*

2. Do this for multiple attributes that are required and you will see the cascading behavior. When you select a value for one attribute, the other attribute values are restricted to what is allowed according to the List data.

**Replicate List Data in an Attribute Category**

If you have to use the same list data multiple times for multiple attributes, you can copy the list to these attributes. If you need two bar code selectors for your packaging component, you will need two fields in the form with the same drop down.

1. *Add and configure your List.*
2. In the Admin mode, go to **Attributes > Attribute Categories** or Task type specification form and click on any text attribute field.

An item **Restrict Values** will be visible in the **Details** section. You can see the cascading attribute lists based on the web server (if any) and the database lists as **lists**. These are now available for use in your **Projects** and **Forms**

3. Select the **List** from the **Lists** drop down. Click **Copy List**.

This way, you will get a second cascading drop down configuration without duplicating the data on the database. You will get a new entry in the list drop down with the same list name with **(2)** as suffix. You can do this multiple times and the suffix changes accordingly.

4. Add more attributes to the category and select values from the replicated Lists.



**Note:** These copies are only available in the attribute categories where the List was replicated. If you save the attribute category without linking any attributes to the copied Lists, they will be removed.

**Configuring List Columns in an Attribute Category**

You can customize the list columns in an attribute without changing the database list. You can:

- change the order of the columns in the cascading drop down. You can create cascading drop downs with different column ordering using the same database lists.



- allow other values in the list.

1. [Add and configure your List.](#)

Go to **Attributes > Attribute Categories** or Task type specification form and click on any text attribute field.



**Note:**

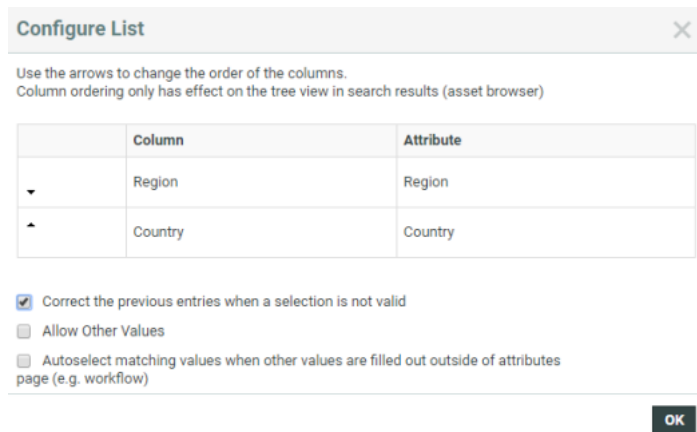
- Make sure you are in **Grid Layout**.
- Bring a text **attribute** into one of the cells.
- Make sure that it is not a **restricted set**. You cannot view the lists of cascading attributes in the **restricted sets** category.

An item **Restrict Values** will be visible in the **Details** section. You can see the cascading attribute lists here.

Details for selected cell:

Attribute	CountryCode
Attribute Type:	Text
Label:	Label Text: <input type="text" value="CountryCode"/> Label Image: <input type="text"/> Position: <input type="text" value="Left"/>
Span Columns:	<input type="text" value="1"/>
Style:	<input type="text" value="WebCenter Attribute"/> <a href="#">Add Style</a>
Visibility:	<input type="text" value="Editable"/> <a href="#">Add Rule</a>
Restrict Values:	<input type="text" value="List"/> <input type="text" value="Country list"/> <a href="#">Copy List</a> Column: <input type="text" value="CountryCode"/> <a href="#">Configure List</a> Rendering: <input type="text" value="Dropdown"/>
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/

2. Click on the **Configure List** link.



3. In the resulting dialog, you can use the arrows to change the order of the columns in the cascading drop downs.



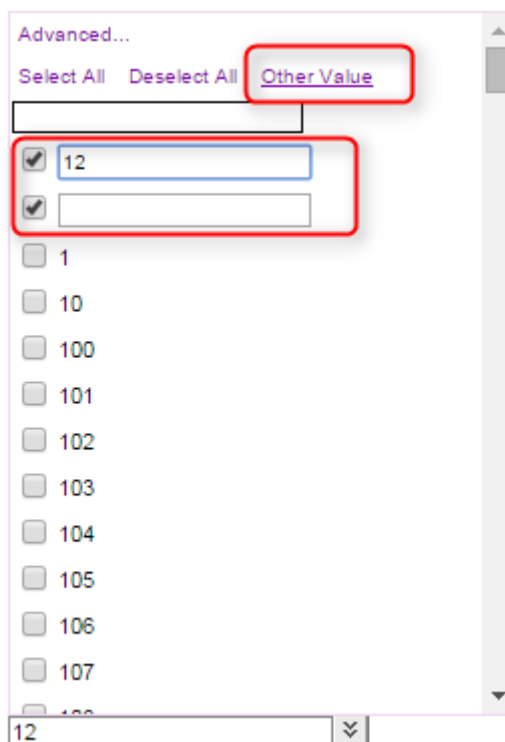
**Tip:** You can configure the list column order to create a cascading tree in search results for your asset browser. In the example above, you can change the `Region` to a higher level using the arrow to move up.

4. By default, the cascading attribute values are corrected when one of the corresponding values change. Disable the **Correct the previous entries when a selection is not valid** option if you do not want your cascade to correct entries automatically. This allows you to select combinations that are not present in the referenced list.
5. You can also specify whether the attribute values restricted to a list column should be allowed to have non-list values. Enable **Allow Other Values** to do so.
  - If you have turned the **Allow Other Values** option off, only the list column values can be selected as a value. This means that if you have an empty field, you cannot type anything there.
  - If the **Allow Other Values** option is on, you can type in an attribute value. The other attributes in the same cascade will not be filtered to the new value until you save the attributes.



**Note:** This configuration is **attribute category** specific. So the column in the database list remain the same.

- If the **Allow Other Values** option is on for a multi-value attribute, you can click on the **Other Value** link on the top to enter a non-list value. As a result, you will get an additional row to enter the new value. You can create multiple rows this way.



6. **Allow Adding Non-Matching Values in Case of Multiple Values** is on by default. If the option is selected, it is possible to add values that do not match other List values to your multi-value List Attribute. They will be shown under the section “Values requiring changes to other selections”. If the option is not selected, this section will not be available.

7. Optionally, enable **Autoselect matching values when other values are filled out outside of attributes page (e.g. workflow)**. This checkbox is off by default.

When this option is on, if one value was filled out by a workflow or elsewhere, the entire cascading will be executed in the **attribute** page.

If the option is off, cascading will only occur when changes are done by a user in the attributes page.

### 3.15.5. Document References

You can make use of **Document References** to specify product and its components or master-child relationships. Using this feature, you can create an attribute link to refer to a document that is located within another project or a document library.

The document reference attribute behaves like a normal attribute which can be added into any attribute categories. However, you can configure them to provide document sources for your projects. For example, when you are re-using your existing marketing statements or claims for individual packaging projects, you can store them in a library and use document references in your future projects to link to them.

Both **Projects** and **Documents** can have document references. You can also create and use [document reference task specifications](#).

You can:

- configure the document reference links to access specific projects designed as document libraries, or to access saved searches or asset browsers.
- store your text statements in a library project. Using document references, you can link to relevant text statements from each of your individual packaging artwork.
- configure the file types of documents for these links. You can link a 3D file to one or more CAD files as document references where the reference links are configured to add only .ARD files.
- configure a document reference attribute to point to multiple documents.
- refer to a CAD overlay from the Graphic file for 3D viewing. Read more in <https://wiki.esko.com/pages/viewpage.action?pageId=170043393>.

It is possible to specify attributes specific to the document reference attribute links. For example, your packaging project for a box can have a document reference link to an artwork PDF. The specific barcode can be linked to this document reference via a **reference category**.



**Note:** You will see warnings when deleting a document that is referenced elsewhere in WebCenter.




### Create a Document Reference Attribute

Creating a **document reference attribute** is similar to [creating an attribute](#).

1. Click **Admin > Attributes > New Attribute**.
2. Enter information in the fields as appropriate:

In the field...	Fill in the...
<b>Name</b>	name of the <b>document reference attribute</b>

In the field...	Fill in the...
<b>Label</b>	text of the label which has to be displayed. To get the translated text of the label in the other languages chosen, select the blue icon to open <a href="#">Find or Create Translated labels</a> on page 324
<b>Description</b>	description of the attribute contents (for example, link to the CAD shape document).
<b>Type</b>	<p>select <b>document reference</b> as the type.</p> <div style="border: 1px solid blue; padding: 5px;"> <p>--- Select Attribute Type ---</p> <hr/> <p>--- Select Attribute Type ---</p> <p>Area(sq in.,sq cm)</p> <p>Area(sq in.,sq mm)</p> <p>Area(sq ft,sq m)</p> <p>Date and Time</p> <p>Distance(in.,mm)</p> <p>Distance(in.,m)</p> <p>Document Reference</p> <p>Float</p> <p>Integer</p> <p style="background-color: #0070C0; color: white; padding: 2px;"><b>Rich Text</b></p> <p>Text</p> <p>Text (Right to left)</p> <p>Volume(cu in.,cu cm)</p> <p>Volume(cu in.,cu dm)</p> <p>Volume(cu ft,cu m)</p> <p>Weight(lbs,gr)</p> <p>Weight(lbs,kg)</p> </div> <p><b>Document References</b> are attribute-links pointing to different document sources. When you select this option, you will have additional options.</p>
<b>Values</b>	will be set to <b>Prompted</b> by default.
<b>Versions and Revisions</b>	Use this field to point to the exact version of the document you need as the document reference link. This is especially useful

In the field...	Fill in the...
	<p>when you want to point to an approved version. By default, it points to the latest version, but you can set this to:</p> <ul style="list-style-type: none"> <li> <b>Latest Version:</b> When you select this, the document reference link will be updated to the latest version of the document.           <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> When you update the referred document, the document link will point to the <b>latest version</b> regardless of the <b>Change Properties</b> permissions in the <b>Project &gt; Security</b> tab.           </div> </li> <li> <b>Selected Version:</b> Use this setting if your document reference link should point to a certain version always. In this case, the document reference will not be updated to point to the latest version when a new version of the reference document is uploaded.         </li> <li> <b>Selected Revision:</b> When you choose this, the document reference will always point to the latest version of the selected revision.           <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> When you update the referred document, the link will source the latest version of the <b>selected revision</b> regardless of the <b>Change Properties</b> permissions in the <b>Security</b> tab.           </div> </li> </ul>
<p><b>Reference Category</b></p>	<p>To apply a <b>reference category</b> to the document reference, select from the drop down listing all the <b>attribute categories</b>.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> <b>Rich text attributes</b> and <b>document reference attributes</b> cannot be used as <b>reference attributes</b>.         </div> <p>You can use a <b>reference category</b> (which is an <b>attribute category</b>) to assign certain attributes to the document reference link. This is very useful when the property is not linked to the product or the component specifically. You can use <b>reference categories</b> to specify properties of the reference links.</p>

3. Select **Attribute is also a task specification** if you want to be able to use the attribute as a task specification.

For more information about task specifications, see [Basic Concepts of Task Management](#) on page 833".

4. Click **Create**.

### Document Versions and Revisions

Use this field to point to the exact version of the document you need as the document reference link. This is especially useful when you want to point to an approved version. By default, it points to the latest version, but you can set this to:

- **Latest Version:** When you select this, the document reference link will be updated to the latest version of the document.



**Note:** When you update the referred document, the document link will point to the **latest version** regardless of the **Change Properties** permissions in the **Project > Security** tab.

- **Selected Version:** Use this setting if your document reference link should point to a certain version always. In this case, the document reference will not be updated to point to the latest version when a new version of the reference document is uploaded.
- **Selected Revision:** When you choose this, the document reference will always point to the latest version of the selected revision.



**Note:** When you update the referred document, the link will source the latest version of the **selected revision** regardless of the **Change Properties** permissions in the **Security** tab.



**Note:**

When you upload a new **version** or **revision** of the reference document, your **Preferences > Security** settings will over-write the above settings.

- When the **Allow changing attributes of approved documents** option is turned off, the document references (as project attributes or task specifications) will not be updated to point to the latest versions.
- If the setting **Allow changing attributes of inactive projects** is turned off, the document references of such projects will not get updated to the latest **revision / version**.

### Reference Category

You can use a **reference category** (which is an **attribute category**) to assign certain attributes to the document reference link. This is very useful when the property is not linked to the product or the component specifically. You can use **reference categories** to specify properties of the reference links.

For example, you can:

- define the position of a text fragment (document reference link) in an artwork.
- size of a barcode on a box. The barcode is the document referenced in the box and the size of the barcode is an attribute of the document reference link.



**Note:** This feature is only available with the Lifecycle Management License.

To apply a **reference category** to the document reference, select from the drop down listing all the **attribute categories**.



**Note:** **Rich text attributes** and **document reference attributes** cannot be used as **reference attributes**.

### Deleting Documents used as Document References

- When you try to delete documents (or document versions) being used as references elsewhere, you will get a warning message with a list of **projects / documents / tasks** where it is being used as a reference.

When you confirm the deletion, the documents / version will be deleted.



**Note:** However, you cannot delete documents when the **Preferences > Security** settings are turned off:

- When the **Allow changing attributes of approved documents** option is turned off as a security setting, the documents / versions referenced as project attributes or task specifications cannot be deleted.  
You will get an error message and a list of **projects / documents / tasks** where the document or version is being used.
- If the setting **Allow changing attributes of inactive projects** is turned off as a security measure, the documents / versions referenced in those projects cannot be deleted.  
You will get an error message listing the occurrences where the document is being referenced.

### Edit a Document Reference Attribute

- Click **Admin > Attributes**
- Click the attribute to edit.
- Edit the attribute as desired. You can change the **Name, Description, Versions and Revisions, Reference Category** and **Attribute is also a task specification**.

Edit Attribute properties and click **Change**.

**Name \***  Tip: Enter a name with a prefix to find it back more easily.

**Description**

**Type \*** Document Reference

**Value \***  Prompted  
 Calculated  
 Restricted Set

**Versions and Revisions \***  ⓘ

**Reference Category**  ⓘ

Attribute is also a Task Specification

**Attribute Categories** ACAD Test, ACAD Test Exported, ACAD Test Exported 2

**Task Types** test deletion of task specification



4. Click **Change** to make the changes.



**Attention:** When you edit the **versions and revisions** settings, the changes will not be reflected in the existing document references. The changes are updated for the future uses of the edited attribute.

### Copying Document Reference Attributes from source Project or Template


When a project is created from an existing project or a template, the Document Reference Attributes that are copied from the template or the source project are copied into the documents in the newly created project. Documents that are local to the source project or template is local to the newly created project as well.

When a project is copied or created along with the documents,

- The documents are copied to the new project and the document reference attribute values of the documents point to the original documents.
- For all document reference project attributes, the referenced document is copied to the new project and attribute points to the new document, which is local to the new project.
- Remote documents in the template/source project remain remote in the new project with no change to corresponding document reference.

Project: demo\_source Active

**Upload**  
 Upload Multiple Documents  
 Mail link to  
 More...



Manager: BLSA\_DOCREF: !!!napr\_custlog\_1.x  
 Customer:  
 Due On:  
 Modified: Jun 18, 2018  
 Description:



Documents 1 Bill Of Materials 0 Tasks 0 Discussions 0 Characteristics Attributes More...

Attributes in Category Demo\_Cat

BLSA\_DOCREF


**+ Upload** **+ Search**

Location of the document in the source

Thumbnail	Name	Project Name	Location
	!!!napr_custlog_1.xml	napr_app_1	Reference
	test1.xlsx	demo_source	Local

Project: demo\_target Rightcrawler New Project created as a copy of demo\_source

**Upload**  
 Upload Multiple Documents  
 Mail link to  
 More...



Manager: BLSA\_DOCREF: !!!napr\_custlog\_1.  
 Customer:  
 Due On:  
 Modified: Jun 18, 2018  
 Description:



Documents 1 Bill Of Materials 0 Tasks 0 Discussions 0 Characteristics Attributes More...

Attributes in Category Demo\_Cat

BLSA\_DOCREF

**+ Upload** **+ Search**

Location of the document in the new project

Thumbnail	Name	Project Name	Location
	!!!napr_custlog_1.xml	napr_taskmanagement	Reference
	test1.xlsx	demo_target	Local

Any document reference attributes which are referenced to documents when copied to the target project while creating a new project from a source project are remapped to the new project as local.

Documents added to the document references through the **Link** in the current project document source, will be also remapped to the document references to the new project created.



**Note:** When you copy a project without the documents, all the document references point to the source project or its referenced project.

### Upload a New Version

You can upload a new version to an existing document only once. This restriction helps to ensure multiple versions of the same documents are not uploaded accidentally.

### Delete a Document Reference Attribute

1. Click **Admin > Attributes**
2. Select the attribute to delete and click **Delete Attribute(s)** in the actions menu.

If the attribute is not being used, it is deleted immediately.

3. If the **document reference** is being used elsewhere, you will be asked to confirm the deletion. Choose from:

- **clear the attribute from the Project(s), Document(s), Document Reference Attribute(s) or Category(s):** When you select this option, your document reference attributes and its values are deleted from the projects / documents / where it is being used. However, the original document or its attributes are not deleted.
- **Cancel deletion.**

### Document References in an Attribute Category

You can set up the document references with advanced options in the **attribute category** [grid layout](#) page.

**Document reference attributes** appear just like the other attributes in this page.

Read [Configure a Document Reference Attribute in a Category](#) on page 381.

### Document References in One Column



**Note:** You need the Life cycle management license to place and edit the document references with its advanced features. If you do not have this, the list layout is the only available option. In the list layout, you will have a simple preview:

- multiple values are always supported
- default style
- drop down rendering when multiple values are added (when editable)
- document references are always rendered as a set of hyperlink read-only.



### Configure a Document Reference Attribute in a Category

You need to use the **Grid Layout** for the advanced features associated with the document reference attributes within the cell of an attribute category.

- To add document reference attributes to a category or remove them from it, use the chevron (<< or >>) buttons to move them between the two columns.

You can see a **Preview** of your attributes under the columns.

- When you add a document reference attribute, you can setup advanced options in the **details** table:

Reference Category:	No Reference Category selected
Version Mode:	Latest Version
Document Source(s):	Components_Default  <a href="#">Edit Configuration</a>
Rendering:	Table  Components_Default <a href="#">Edit Render Configuration</a>

- Check **Allow Multiple values** to allow the reference to multiple documents. This feature is detailed in [Create a Multi-Value Attribute](#) on page 358
- Reference Category** is a read only field which refers to properties specific to this document reference link.

This field is set during the creation of the document reference attribute. You can specify an attribute category for each document reference attribute to define the properties of the reference / link. Read more in [Reference Category](#) on page 377.

- Version Mode** refers to the document version you are referencing to. This field is also set during the creation of the document reference attribute. Read [Document Versions and Revisions](#) on page 377.
- Document Source:** You can configure different types of document sources for a customized **document reference link**.

a) Click **Edit Configuration**.



You can configure [your document sources](#) in the **Edit Document Source Configuration** pop-up.

b) Click **Add document source** to add more document sources for this **Document Reference Attribute**.

c) If you have different [attribute views](#), you can setup different [source configurations](#).

Read more in:

- [Adding Document Sources for a Document Reference Attribute](#) on page 383.
- [Document Sources for Different Attribute Views](#) on page 385.
- Rendering:** You can setup a **Simple** or advanced **Table** display of the **document reference** links in a Project / Template / Forms.

If you select your rendering as:	The result will be...
<p><b>Simple</b></p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p style="text-align: right;"><a href="#">Upload CAD</a> <a href="#">Add CAD from Library</a></p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;">   <span>▼</span> </div> <div> <p>Add CAD from Library (Reference): ball.ard <span style="float: right;">⊗</span></p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 5px;"> <div style="text-align: center;">   <span>▲</span> </div> <div> <p>Add CAD from Library (Reference): BOXCO_00001.ard <span style="float: right;">⊗</span></p> </div> </div> </div> <ul style="list-style-type: none"> <li>The document references will have:             <ul style="list-style-type: none"> <li>the document name as a hyperlink. Click this link to open the document in a new tab.</li> <li>a thumbnail. Click on the thumbnail to open the document in the Viewer.</li> <li>a delete button</li> </ul> </li> </ul>

If you select your rendering as:	The result will be...
	<ul style="list-style-type: none"> <li>up/down arrow to re-order the document list.</li> </ul>
<b>Table</b>	<p>An advanced table depending on your configuration. For example, you can configure editable attributes into your table.</p> <p>Read more details in: <a href="#">Create an Advanced Table Rendering</a> on page 386</p>

- **Save** the **attribute category**.

A user with attribute update permissions can:

- delete a document from the list of document references.
- add a document. The **document sources** as configured will be available as a header to the simple / table rendering.



**Note:**

1. If **allow multiple values** is turned off, document source links will appear next to the added document in the same row.
2. Without the necessary upload rights to the folders of the project, a user cannot add documents to them.

- change the order of the referenced document.

**Adding Document Sources for a Document Reference Attribute**

You can configure your **document sources** (such as a Project/template which serves as a library of assets, a Saved search of your assets, or your document templates) in the **Grid layout**. Your configured sources will appear in the places (such as templates or forms you have designed) where you set the document reference categories.

**Edit Document Sources Configuration**

DocRef1\_Default

Source	Label	Details	Operation	Target	Target Folder
⊕ Browse	Standard Upload	Allowed Extensions Document Template selector: Any Document Template configured	Upload	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Replace	Documents
⊕ Document Templates	Standard Browse	Document Template selector: Fixed Document Template Template(s): VV_Template from a Project_VVV1 Copy Operation: Basic Copy	Copy	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Replace	Documents
⊕ Current Project	Standard Link		Link	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Replace	
⊕ Saved Search	Standard Search	Search Name: TL_WCR_16922 Bulk Operations - Find Docum Document Template selector: Any Document Template configured Copy Operation: <span style="border: 1px solid #ccc; padding: 2px;">Copy with All References Basic Copy Copy with Local References Copy with All References</span>	<input checked="" type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move <input checked="" type="checkbox"/> Use by Reference <input type="checkbox"/> Create Assembly	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Replace	Documents

You can configure:

- a simple **Browse** link for the user to upload a document.



**Note:** You can also drag and drop multiple files to the upload button.

- **Document Templates** from the template library. This will serve as a place holder with pre-configured settings such as attribute categories. Read more about templates in [Document Templates](#) on page 171.
- **Current Project**
- **Saved Search:** Use this option to allow the user to select a file from a saved search. When the user clicks the document reference as a link (with a custom **label**), saved search results will appear in a pop-up with all the configured options.
- **Asset Management System:** Use this to allow selecting a file from the configured Asset Management Systems. Read more in [Configure Asset Management Connections](#) on page 436

You can specify settings for your users:

- the **Label**
- the **Details** such as:
  - the **document template** library
  - the name of the **saved search**
  - allowed file extensions
  - copy operation
- the type of **operation** depending on the document source. You can allow the users to:
  - **copy**
  - **link**
  - **move**
  - **use by reference**
  - **Create Assembly**
- **Target folder:** Every document source must have at least one target location selected. **Add** and **Replace** options as targets are available for all the document sources.
  - **Add** target is used when you are uploading a new document or moving or copying or referencing an existing document with a Document source and adding it to a Documents table.
  - **Replace** target is used when an existing document is replaced by a new document (uploaded or already existing) within a Documents table.

Options are similar to the [Project / Template document creation settings](#).



**Tip:** You can [setup different configurations for different attribute views](#).

### Document Sources for Different Attribute Views

There is always one document source configuration assigned to a document reference attribute in a category depending upon the **view**. In the **default view**, the name of this configuration will be "AttributeName"\_Default.

You can create dedicated document sources for custom [attribute views](#). When you are in a custom **view**, click **Create Configuration for the Current View** to create a custom document source.

You will get an **Edit Document Sources Configuration** pop-up with a copy of the default setup.

Create a new setup for the current **view** and click **OK**. To revert to the default, click **Return to Default View Configuration**.



**Note:** **Return to Default View Configuration** will delete the current configuration and restore the default.

Document Sources Configuration

Attributes\_Default

	Label	Details	Operation	Target
Document Templates	Standard	Document Template selector: Any Document Template configured	Copy	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Repla
	New	Copy Operation: Basic Copy		
Search	Standard	Search Name: -- Select Search -- Document Template selector: Any Document Template configured	<input checked="" type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Repla
	Search	Copy Operation: Basic Copy	<input checked="" type="checkbox"/> Use by Reference <input checked="" type="checkbox"/> Create Assembly	

Source

In other views, the configuration name can be:

- "AttributeName"\_Default if the configuration in the current **view** is inherited from the **default view**.
- "AttributeName"\_ViewName if the **view** has its own configuration. If the configuration is shared with another **view**, ViewName can be from the other **view**.

### Asset Management Connection as a Document Source for Document Reference

You can select **Asset Management System** as a Document Source. You can further add specific details from what has to be fetched from the asset management system by selecting **Configure** which opens the **Asset Management Configuration** window.

Following information has to be specified for the Configuration

- Choose either a Workspace that should be opened or workflow that should be called in the Asset Management.
- When Workspace is selected: Choose the **Name Space** and **Parameter** from the drop down and value can be keyed in or filled using SmartNames
- When Workflow is selected: Parameters should be added to the request, and values can be keyed in or filled using SmartNames



**Note:** This setup can be exported for reuse or another setup can be imported from file.

**Create an Advanced Table Rendering**



Adding an advanced table of document references allows you to customize the way your document will be shown to users when they are applied (For example, in a template).

It also allows you to configure advanced features such as making an attribute of the document **required** or **read only**.



**Note:** The document reference attributes will inherit the **style** specified in the **attribute category**. This style is further expanded to the individual document's attributes as well.

- Click **Use Grid Layout** in the **Edit Category** page. Add your document reference attributes.

Reference Category:	No Reference Category selected
Version Mode:	Latest Version
Document Source(s):	Components_Default  <a href="#">Edit Configuration</a>
Rendering:	Table  Components_Default <a href="#">Edit Render Configuration</a>

- Select the **Rendering** as **Table** in the *grid layout*.

In the **Edit Render Configuration** dialog, you can set up the advanced rendering.

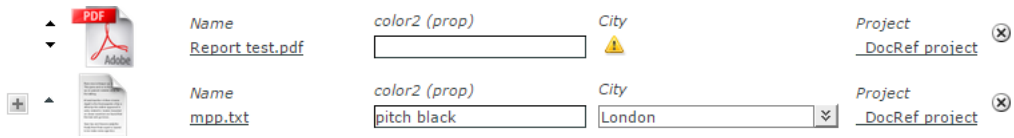


**Note:** You can create *custom tables* for your different views.

- Enable **Hide Header** if you do not want a header row in the document references table. The labels will be displayed in line for each document.
- Enable **Allow Bulk Operations** when any action performed on the document reference is also cascaded to all the references which are made to that particular document reference. Actions performed on the document reference could be to
  - Remove a Referenced document which removes all the document references in the tree structure
  - Replace and Undo
  - Getting document to Local and Undo action
  - Upload a new version and/or edit a text statement
  - Update to the latest version
- Enable **Limit Bulk Operations to Document References with matching Operations configured**, when you want to perform bulk operations on document rows which are filtered based on document sources and actions configured for them. Read more about *bulk operations*.



User is informed about the number of rows the bulk operation will be really performed (after filtering) in the specific bulk operation modal dialog.



- Enable **Open Links in new Tab** , to open any link in the document reference in a new tab.
  - Click **Add Column** to add more columns to the table.
- The rows in the **Edit Render Configuration** pop-up correspond to your document reference columns.

**Edit Render Configuration**

Name: DocRef3\_Default

Hide Header  
 Open Links in new Tab  
 Allow Bulk Operations  
 Limit Bulk Operations to Document References with matching Operations configured

Type	Details	Label	Visibility	Width	Collapse
Reference Property	INSTANCE_SEQUENCE	INSTANCE_SEQUENCE	Editable	auto	<input type="checkbox"/>
Up/Down			Read Only	auto	<input type="checkbox"/>
Document Property	Thumbnail 50 px	Thumbnail	Read Only	auto	<input type="checkbox"/>
Document Name	<input checked="" type="checkbox"/> Show Document Source <input checked="" type="checkbox"/> Show Document Description <input checked="" type="checkbox"/> Show Folder <input checked="" type="checkbox"/> Show Document Template	Name	Read Only	auto	<input type="checkbox"/>
Document Actions	<input type="button" value="Add Action"/> <input checked="" type="checkbox"/> Open 3D View <input checked="" type="checkbox"/> View <input checked="" type="checkbox"/> Open in ArtiosCAD <input checked="" type="checkbox"/> Download		Read Only	auto	<input type="checkbox"/>
Document Property	Version <input checked="" type="checkbox"/> Allow uploading a new version <input checked="" type="checkbox"/> Allow updating to latest version	Version	Read Only	auto	<input type="checkbox"/>
Local/Remote Project	Project Folder Name <input type="checkbox"/> Copy Text Content Status		Editable	auto	<input type="checkbox"/>
Replace Button			Read Only	auto	<input type="checkbox"/>
Delete Button			Read Only	auto	<input type="checkbox"/>

- Select **Type** as **Document Name** which is a mandatory field. In the **Details** section, you can disable:
  - **Show Document Source**
  - **Show Document Description**
  - **Show Folder**


- **Show Document Template**

Your rendering will have a hyperlink to the document depending on the user permissions. These options are additional details added to the document and can be viewed only when a new document is added.

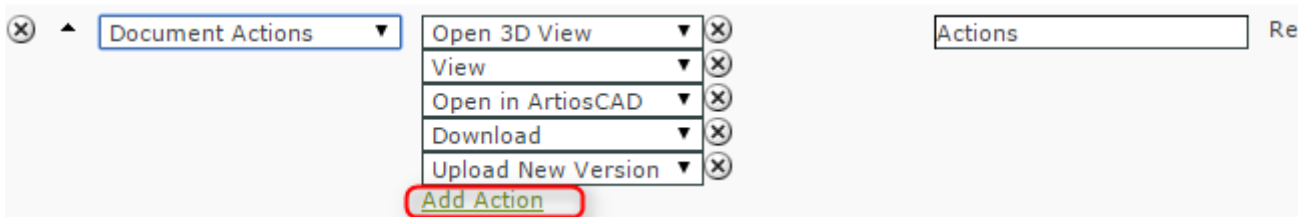
[box\\_sprint2.ard](#)




The name will not be a hyperlink for users without document view permissions.

- Depending on how your **document properties** should be rendered, configure the table columns. You can create custom **Labels** for your selections. The properties will be displayed as **read-only**.

Choose Document PropertyDetails as...	The result in the rendering table will be...												
<ul style="list-style-type: none"> <li>• <b>Description</b></li> <li>• <b>VersionRevision</b></li> <li>• <b>VersionAuthor</b></li> <li>• <b>Project</b></li> <li>• <b>ApprovalStatus</b></li> <li>• <b>ApprovalStage</b></li> <li>• <b>ModifiedDate</b></li> <li>• <b>Thumbnail</b></li> </ul>	<p>The selected document properties will appear in the table header with the custom <b>label</b>. For example:</p> <ul style="list-style-type: none"> <li>• the current Approval Stage of the document. The user can click to access the approval pop-up.</li> <li>• Clickable thumbnail of the document with the default (50x50) or specified pixels.</li> </ul> <table border="1"> <thead> <tr> <th>Version</th> <th></th> <th>estado de aprobación</th> <th>etapa de aprobación</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>⊗</td> <td>🔄</td> <td>Stage2</td> </tr> <tr> <td>1</td> <td>⊗</td> <td>✔</td> <td>Etapa 3</td> </tr> </tbody> </table>	Version		estado de aprobación	etapa de aprobación	1	⊗	🔄	Stage2	1	⊗	✔	Etapa 3
Version		estado de aprobación	etapa de aprobación										
1	⊗	🔄	Stage2										
1	⊗	✔	Etapa 3										
<div style="border: 1px solid gray; padding: 5px;"> <p> <b>Tip:</b></p> <ul style="list-style-type: none"> <li>• Create custom <b>labels</b></li> <li>• Specify the pixels for your <b>thumbnail</b>.</li> <li>• Check the box <b>Allow uploading a new Version</b> button</li> </ul> </div>	<ul style="list-style-type: none"> <li>• <b>Upload New Version</b> 📄 if you have the rights to upload will be available in the <b>Version</b> column.</li> </ul>												

- You can configure **document actions** in the table rendering of the document references. The actions will appear next to the documents listed in the table only when it is relevant.

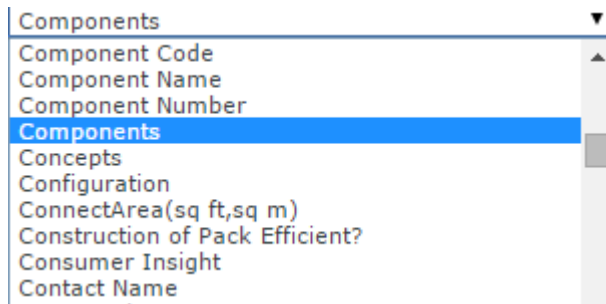


Choose Document Actions as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>View</b></li> <li>• <b>Open in 3D</b></li> <li>• <b>Open in ArtiosCAD</b></li> <li>• <b>Download</b></li> <li>• <b>Upload New Version</b></li> <li>• <b>Update to Latest Version</b></li> </ul>	<ul style="list-style-type: none"> <li>• A 3D  button will be available only when there is an existing 3D perspective.</li> <li>• <b>Open in ArtiosCAD</b> option will be available for CAD files. Clicking on it will open the CAD document as set up in the <b>preferences</b></li> <li>• <b>Download</b> option will be available when the user has download permission.</li> <li>• <b>Upload New Version:</b> This is available when the user has the rights to upload new version.</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p> <b>Note:</b> The <b>Upload New Version</b>  button can also be placed in the Version column by checking the <b>Allow uploading a new version</b> check box.</p> </div> <ul style="list-style-type: none"> <li>• <b>Update to Latest Version:</b> Allows user to update to the latest version</li> </ul>



**Note:**

- If you change the **attribute** values during the upload of a new version, these are only applied on the new version of the document. The previous version will have the old attribute values.
  - If a document version is linked in multiple projects, all linked projects will get the new document version.
  - If the configured columns do not fit in the table, the table will assign each column its minimum width and show a horizontal scroll bar.
- Configure how your **Document attributes** should be displayed. Select the relevant **attribute** from the drop down as a specific column (with a custom **Label**) in your table.



Specify the Visibility of the attribute as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>Editable</b> if you want the users (with the right permissions) to be able to edit this attribute.</li> </ul>	<ul style="list-style-type: none"> <li>• The selected document attributes will be displayed in the table header and its values in the respective columns.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Required</b> if you want to make it mandatory for users (with the right permissions) to fill in this attribute.</li> </ul>	<ul style="list-style-type: none"> <li>• The users can type in the values for the editable attributes.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Read Only</b> if you don't want <b>any</b> user to be able to edit this attribute.</li> </ul>	
	<p> <b>Note:</b> You can configure the <b>Visibility</b> also at the attribute level. If your settings differ, the most restrictive setting will be applied.</p>

**Tip:** Click **add column** and select another attribute to have more attributes listed in your table.

**Tip:** You can configure a project's **document reference attributes** to be non-editable and still allow the user to edit the **attributes** of the **documents** referenced. Your user can do this from the project's **attribute category** tab.

**Tip:** Optionally, you can setup the **Project > Notifications > Project Attribute/Category change** to receive notifications about document references. **Reference category** changes will be notified according to the **Project > Notifications > Document Attribute/Category change** settings.

Configure **Expand Attributes**  / **Collapse Attributes**  button for your document references. This allows you to expand or collapse the **document attributes** of your **references**.







**Tip:** You can configure different **expand attributes** settings for different views. Specify the **view** name here.




**Note:**

The check box **Use Creation View for new Documents** is switched on by default. As a result, you will get the **creation view** whenever you use **Upload/ Browse, Copy or New** regardless of the view you are creating the rendering for. If this option is disabled, you will see the specific view or the default view.

When you save the view will change to the specified or default view depending on the configuration.

Edit the Visibility as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li><b>read-only</b></li> <li><b>editable</b></li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> The user needs <b>Change properties</b> right to edit attribute values.                 </div>	<p>Click  to expand the document attributes (which may also be document references):</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Tip:</b> Keep this <b>editable</b>, if your users have to edit the document reference's attributes.                 </div> <p>When the document attributes are expanded, you can use  to collapse them.</p>

+/-	Thumbnail	Name
-		BOXCO_00001.ard
<b>Customer</b> Box&Co.		<b>Box Brands</b> BoxingBox
<b>Description</b> Blue box for Box&Co.		<b>CAD Number</b> 1
<b>Display</b> <input type="checkbox"/>	<b>Style</b> spark	<b>Length</b> 300

- Select the relevant **reference properties** and specify if you want it to be **Read-only / Editable / Required / Hidden**.

**Reference properties** are **attributes** (**reference category**) of the document reference link. You can select one of them from the attribute drop down in the **Details** cell.

Reference Property ▼	DEKE_Ingredient Quantity (float) ▼
Reference Property ▼	DEKE_Ingredient Unit ▼



**Note:** **Reference Property** field is only available when a *reference category* is specified for the document reference.

**Specify the Visibility of the reference category attribute as...      The result in the rendering table will be...**

- **Editable** if you want the users (with the right permissions) to be able to edit this attribute.
- **Required** if you want to make it mandatory for users (with the right permissions) to fill in this attribute.
- **Read Only** if you do not want **any** user to be able to edit this attribute.

**Hidden** if you want to specify a Reference Property, but do not want to show it in the table.

- The reference attributes will be displayed in the table header and its values in the respective columns.
- The users can type in the values for the editable attributes.
- No visible **reference attributes** in the table
- The values (of the **reference attributes**) are retained when you *duplicate* or *replace* a document reference.

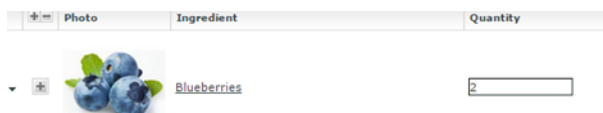


**Note:** This option is specific to **Reference Properties**.



**Note:**

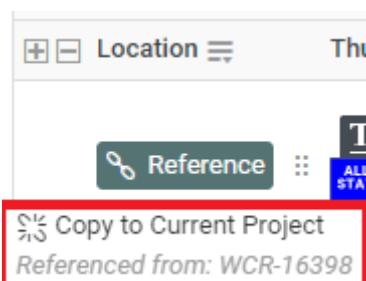
Choose **Collapse** check box when you choose **Document Property, Reference Property, Reference Property Filter, Document Attribute, Project Property, Project Attribute, Master Text, Translation Text, Text Language Flags** fields for **Type**, to expand or collapse the column while rendering in the table.



- You can allow the users to move a referenced document into the current project. To set this up, create a column with **Local / Remote** setting. Specify the **visibility** as **editable** or **read-only**. You can move all the referenced documents into the local project by hovering on the **Location** in the header and selecting the option **Copy All References into Current Project**.

+ Upload		+ Link		+ Search		+ Search	
Location	Thumbnail	Name			Version		
Copy All References into Current Project							
Reference		Reference ■ Allergen statement	0002_TextDoc_00000814_PCM.wcc	Q	↓	1	🗑️
Reference		Reference ■ Best before date	123Best before date.wcc	Q	↓	8(F)	🗑️
Reference		Reference ■ Dosage instructions	123Dosage instructions.wcc	Q	↓	1	🗑️
Reference		!!Carrot11.pdf		Q	↓	1	📄 🗑️
Reference		00000002_Nutritional Facts_C.wcc		Q	↓	1	📄 🗑️

You can move any of the referenced document to the local by clicking on the Referenced field of the required document and selecting the option **Copy to Current Project**.



The users need to **Change Properties** and **Add** permissions to move a document to local folder. The document reference will point to the local copies.

The user will be able to specify:

- a new name and description
- document template
- target folder

If the setting is **Read-only**, the user will see indicating remote project.

- When you are creating a Copy Sheet using Text Document References, you can configure text related data to the table. Read more in: [Create a Table Rendering for Text Documents](#) on page 399
- To configure the rendering with Project related parameters, choose from

- Project Property
- Project Attribute

Read more details in: [Project Properties in Advanced Table Rendering](#) on page 397

- Optionally, add:
  - a) a **Numbering** column.
  - b) **Up / Down** arrows to let the users change the sequence.
  - c) **Duplicate** button which allows the user to duplicate a reference along with its properties. Read more in: [Duplicate a Document Reference](#) on page 396.
  - d) **Replace** button which allows the user to replace a document reference. Read more: [Replace a Document Reference](#) on page 396.
  - e) a **Delete Button** to let the users delete the document references from the table.
  - f) **Row Selector** to let the users select single or multiple documents. Using this, user can select multiple documents from the document table and perform document actions on them.
- Save the configuration by clicking **OK**. To revert from this configuration, click **Revert to WebCenter Default Configuration**.
- **Save** the **Attribute Category**.

If the logged in user does not have permissions to view the document, the document table will have (based on the configuration):

1. **Document name** with **!**. The user will see a warning message.
2. Editable **reference properties** displayed in the specified columns
3. **Up /Down** arrows
4. **Delete** button
5. **Numbering** (“#”)



**Note:** If the settings are not **editable**, the document table will have the document name and its sequence number.

### Advanced Table Rendering for Custom Views





**Note:**

You can create dedicated table (of document references) for custom *attribute views*. When you are in a custom **view**, click **Create Configuration for the Current View** to create a custom table.

You will get an **Edit Render Configuration** pop-up with a copy of the default setup.

**Edit Render Configuration**

Name: DocRef3\_Default

- Hide Header
- Open Links in new Tab
- Allow Bulk Operations
  - Limit Bulk Operations to Document References with matching Operations configured

Type	Details	Label	Visibility	Width	Collapse
:: Reference Property	INSTANCE_SEQUENCE	INSTANCE_SEQUENCE	Editable	auto	<input type="checkbox"/>
:: Up/Down			Read Only	auto	<input type="checkbox"/>
:: Document Property	Thumbnail 50 px	Thumbnail	Read Only	auto	<input type="checkbox"/>
:: Document Name	<input checked="" type="checkbox"/> Show Document Source <input checked="" type="checkbox"/> Show Document Description <input checked="" type="checkbox"/> Show Folder <input checked="" type="checkbox"/> Show Document Template	Name	Read Only	auto	<input type="checkbox"/>
:: Document Actions	Open 3D View View Open in ArtiosCAD Download Add Action		Read Only	auto	<input type="checkbox"/>
:: Document Property	Version <input checked="" type="checkbox"/> Allow uploading a new version <input checked="" type="checkbox"/> Allow updating to latest version	Version	Read Only	auto	<input type="checkbox"/>
:: Local/Remote Project	Project Folder Name <input type="checkbox"/> Copy Text Content Status		Editable	auto	<input type="checkbox"/>
:: Replace Button			Read Only	auto	<input type="checkbox"/>
:: Delete Button			Read Only	auto	<input type="checkbox"/>

Add Column    Revert to default configuration

OK

Create a new setup for the current **view** and click **OK**. To revert to the default, click **Return to WebCenter Default Configuration**.



**Note:** **Return to WebCenter Default Configuration** will delete the current configuration and restore the default.

In other views, the configuration name can be:

- **"AttributeName"\_Default** if the configuration in the current **view** is inherited from the **default view**.
- **"AttributeName"\_ViewName** if the **view** has its own configuration. If the configuration is shared with another **view**, *ViewName* can be from the other **view**.

### Duplicate a Document Reference

You can configure a **Duplicate** option in your document reference table in both **Attribute Category** and **Dashboard** pages. When the user **duplicates** a reference, a new row of document reference will be created. The duplicated document will have the same content, document **attributes** and **reference category** as the previous one.

In the case of Text Document, Content file, then each element status in the file will be reset to draft.



**Note:** Only users who are Project managers, Administrators or with Change Properties rights can replace the document reference.

Technical:

New		From Library		Instance (GS1)	Version
		step 1 step 2	Document source is New	2	
		step 1 step 2	Duplicated row	1	
		INGREDIENTS Magnesium Hydroxide Prep. (Magnesium Hydroxide, Starch), Dicalcium Phosphate, Vitamin C Prep.		3	

When you configure a **Duplicate** button, it will allow the users:

- to duplicate a document row with **Copy** and **New** as *document sources*.

The duplicate documents are created in the current Project where the copied or newly created documents are stored.

You cannot duplicate a document reference if the document source is:

- Browse / Link / Use by Reference / Remote.**

Behavior while duplicating document and its reference properties:

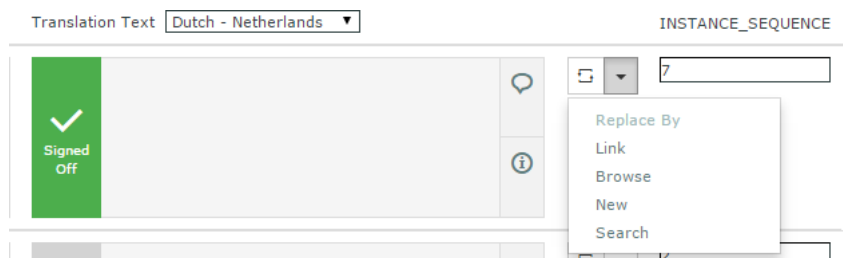
- If **Allow multiple values** is turned off in the attribute category, the duplicate will replace the original instead of adding a new document reference.
- The duplicated document will have the same Attribute category including the child document references. The Reference categories and its settings are copied at parent and child levels.
- The duplicated row inherits the entire hierarchy (if any) of the parent row including the attribute values.
- It is possible to duplicate a newly created document row.

### Replace a Document Reference

You can configure a **Replace** option in your document reference table. When you **replace** the old reference, the new document reference will have the same **reference category** as the old one.



**Note:** Project managers, Administrators or users with Change Properties rights can replace the document reference.



When you configure a **Replace button**, it allow the you to

- replace the document via any of the configured *document sources* (**upload, browse**, etc.). If you do not select any option, the first source is taken as the default.
- **Undo the action** before saving the new document reference.

This document has its own **Attribute Category** but will keep the same **Reference Category** as the old reference.

You can also select **compact rendering** option for this button.

### Project Properties in Advanced Table Rendering

You can configure the document's Project related details in the document reference rendering.

#### Project Property

If you select **Project Property** as the **Type**, you can specify the following parameters of the document's host Project in the document rendering.

- **Project Property**
  - Project Name
  - Project Due Date
  - Project Status. You can choose to:
    - Show Label and Icon
    - Show Only Label
    - Show Color Label
    - Show Only Icon
- **Project Attribute**: Specify the attribute that you want to show from the drop-down.

### Bulk Operations on Document references

A single document can be referenced multiple-times from various Projects /Document Attribute Details, Project Creation Form or Task Execution Page.

To speed up and improve working in such a situation, you can perform the bulk operations on the documents referenced by a document reference attributes.

When you perform the following actions on a document references,

- Remove a document from a document reference attribute
- Replace a document referenced by a document reference attribute
- Make a document referenced by a document reference attribute local to the current project
- Update the reference of a document to refer to the latest version of the document (available only for "Selected version/revision" document reference types)

you can choose to perform only on the selected document or on all the documents it is referenced to. By all documents it is referenced, means a search is performed in the document reference tree structure for affected documents including the document references with bulk operations turned off.



**Note:** Bulk operations are not performed in

- BOM Documents
- Read-only and hidden document references

You can also enable the option **Limit Bulk Operations to Document References with matching Operations configured** in the **Edit Render Configuration** in Attributes Category page. When the option is chosen, document rows to be modified by any of supported bulk operations are in addition filtered based on document sources and actions configured for them. Only document rows where the bulk operation can be performed directly are filtered and are modified by the bulk operation.

### Creating a Copy Sheet

Copy sheet is a term used to describe all the content that is attached to a particular artwork or printed item. A copy sheet containing aggregated content helps you to:

- validate the copy sheet templates for consistency, accuracy and compliance with the established content management process.
- review, proof-read and approve copy sheet in one place.

You can create a copy sheet using Text Content Document References in an **Attribute Category**. This gives the option to attach this copy sheet to your Projects or artwork documents.

The copy sheet categories allow you to:

- track the content on an artwork.
- easily reuse existing approved content
- configure separate permissions and approval system for each text document.



**Tip:**

By configuring [Document Rendering](#) for Text documents, you can attach copy sheets to Tasks. When you configure Workflows with manual tasks for editing or approving, the users can work on the copy sheet directly from their task.

An Attribute Category based copy sheet offers the following advantages:

- the languages. To view a particular translation corresponding to a master, just select that language in the filter drop down.
- the **Instance Sequence**. See more in: [Dynamic Content documentation](#)
- the option to [replace a text document with another](#)
- the button to [duplicate a document](#) with the same reference attributes
- [advanced document reference options](#)

You can [Edit](#), [Start Approval](#), [Approve and Reject](#) actions from the copy sheet depending on your content permission.



**Note:** The text document references are used when you import Dynamic Content into WebCenter. Read about this [here](#).

See the example screen shot below. The configuration explained here is only an example. You can configure your document references according to your needs.



**Tip:** You can configure the copy sheet with different **Attribute Views** to provide custom views to your users. For example, a content collator and Translation Language Editors can have different *custom views* of the same text document reference category.



**Note:** You can also add the languages by clicking on the + displayed in the text statement. On deletion of a language, the + icon is again displayed to enable adding back the language. You can configure the corresponding attribute category to display the languages one by one in a table.

Name	Master Text: English - International	Translation Text: French - France	Text Languages: Language Flags
Marketing copy Content: 001006.wcc	HIGH IN VITAMINS: B5, B6, B12, C	RAFFRAICHISSEMENT AVEC ZINC ET CHROME	[Flags]
Marketing copy Content: 001007.wcc	REFRESHMENT WITH ZINC & CHROMIUM	EXCELLENTE SOURCE D'ELECTROLYTES	[Flags]
Marketing copy Content: 001008.wcc	EXCELLENT SOURCE OF ELECTROLYTES	RECYCLER PLASTIQUES	[Flags]
Recycle statement Content: 001009.wcc	RECYCLE PLASTICS	MELANGES TROPICAUX	[Flags]
Variet Content: 001010.wcc	TROPICAL BLEND	BOISSON ENERGISANTE	[Flags]
Packaging claim Content: 001011.wcc	ENERGY DRINK		[Flags]

### Automatically add/remove languages in the Documents Table

Adding any of the available languages is possible based on permissions on all the local text content documents in the table, but for the remote documents (sitting in another project). Auto Addition of Languages can be enabled in the [PCM Deployment and Configuration](#).

When a new language is added in a Master/Translation language attribute, the language is automatically added into all the local text content documents. For the new text content documents in the local project, the missing languages are added and extra languages available in the text content are removed.



Similarly, when a language is removed from a language attribute, it automatically removes the languages which are added recently but not yet saved.


### Create a Table Rendering for Text Documents

You can configure a Text statement as document references and add them to a Project or Document Attribute category. The configuration and rendering are similar for Task Specifications.

For each Copy Sheet (Product Content Sheet), which has Text Content documents as reference, you can make different configurations to show text related data using advance table rendering option."

1. [Create a Table Rendering](#).
2. In the **Edit Rendering Configuration** pop-up:

Configure	The result in the rendering table will be...
<p><b>Master Text or Translation Text</b></p>	<p>Master Text Statement or the Translation Text is shown in a text widget along with its content in the edit field and all related text content actions.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> <b>Note:</b> The <b>Visibility</b> should be specified as Editable if you want your users to edit the text. One or more columns can be configured for the Master or Translations of the Master Text.</p> <p>Master and Translation languages will either appear in a drop down or you can choose <b>Show Side by Side</b> view.</p> <p>You can also restrict the languages that will appear in the drop down, by mentioning the languages ( pipe separated) specifically in the details tab.</p> </div>
<p><b>Text Language Flags</b></p>	<p>The language drop downs for Master and Translation Text columns.</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p> <b>Note:</b> The master and translation languages are populated from the project attributes MASTER_TEXT_LANGUAGE and TRANSLATION_TEXT_LANGUAGE respectively.</p> </div>

 **Tip:** You can specify a default language code for Text statements. The selected language will be the default in the document reference table. If default language is not specified, the first language from the language drop down is selected as the default. WebCenter also supports right to left languages like Arabic and Hebrew for text content.

3. Specify the width for Master Text and Translation Text. By default, the width of every column is set to **Auto**. However, you can configure the width for the Document Name, Master Text, Translation Text and the Translation Languages.



**Tip:**

To change the width of the columns, specify pixels or a percentage (of the width of the table). If the label of the column is too big for the width specified, the column width will be bigger to accommodate this.

**Edit Render Configuration**

Name: PCM Text Reference\_Default

Hide Header  
 Open Links in new Tab  
 Allow Bulk Operations  
 Limit Bulk Operations to Document References with matching Operations configured

Type	Details	Label	Visibility	Width	Collapse
:: Document Property	Thumbnail	Thumbnail	Read Only	50 px	auto
:: Document Name	<input checked="" type="checkbox"/> Show Document Source <input type="checkbox"/> Show Document Description <input type="checkbox"/> Show Folder <input type="checkbox"/> Show Document Template	Name	Read Only	100px	
:: Replace Button	<input checked="" type="checkbox"/> Compact Rendering		Read Only	auto	
:: Reference Property	ARTWORK_VARIABLE	ARTWORK_VARIABLE	Editable	auto	
:: Reference Property	INSTANCE_SEQUENCE	Instance Seq.	Editable	75px	<input checked="" type="checkbox"/>
:: Translation Text	<input type="checkbox"/> Show Side by Side [Display Options: Status, Inheritance, Comments, Approval]	Translation Text	Editable	600px	
:: Master Text	<input type="checkbox"/> Show Side by Side [Display Options: Status, Inheritance, Comments, Approval]	Master Text	Editable	600px	
:: Delete Button			Read Only	auto	

1. You can also enable the **Display Options** in the Edit Render Configurations. You have four icons buttons and are active by default.

- **Status Button** Show status column in default manner like basic view page when active. When the button is inactive it shows status in the form of a colored strip based on the status of the content. Green for approved, red for rejected, blue for pending approval and grey for draft.
- **Inheritance Button** Shows the inheritance icon when active.
- **Comments Button** Shows the comments icon button when active.
- **Approval Info Button** Shows the approval info button when active.

While Rendering of Master and Translation Language, if all the button options are disabled and there is no message to show then more options "Ellipsis" button will also not be visible.

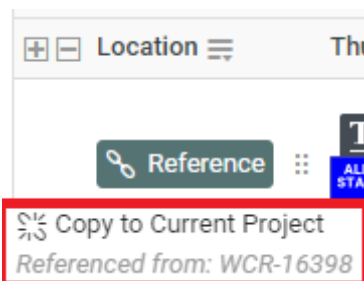
4. Configure the display of **Text Language Flags**. You can configure the **Display** as **Show only Flags** or **Show Flags and Languages**.

These flags will be based on the Project Language Attributes.

- In the copy sheet view, all the newly created text documents will have the current Project's [Language attributes](#) as flags. You can read about how to customize flags for languages [here](#).
  - All the sourced content (referenced from other Projects) will have the flags based on the source Project's language attributes. To add the current project's languages, select them from the available flags. You can add or delete flags in this view.
5. You can allow the users to move a referenced document into the current project. To set this up, create a column with **Local / Remote** setting. Specify the **visibility** as **editable** or **read-only**. You can move all the referenced documents into the local project by hovering on the **Location** in the header and selecting the option **Copy All References into Current Project**.

+ Upload + Link + Search + Search			
Location	Thumbnail	Name	Version
Copy All References into Current Project			
Reference	ALLERGEN STATEMENT	Reference ■ Allergen statement 0002_TextDoc_00000814_PCM.wcc	1
Reference	BEST BEFORE DATE	Reference ■ Best before date 123Best before date.wcc	8(F)
Reference	DOSAGE INSTRUCTIO	Reference ■ Dosage instructions 123Dosage instructions.wcc	1
Reference		!!Carrot11.pdf	1
Reference	NUTRITION FACTS	00000002_Nutritional Facts_C.wcc	1

You can move any of the referenced document to the local by clicking on the Referenced field of the required document and selecting the option **Copy to Current Project**.





The users need to **Change Properties** and **Add** permissions to move a document to local folder. The document reference will point to the local copies.

The user will be able to specify:

- a new name and description
- document template
- target folder

If the setting is **Read-only**, the user will see  indicating remote project.

6. If you are configuring **Local / Remote** button to allow copying of documents, ensure that you have enabled or disabled **Retain text document status**.

When this option is turned off, if you copy to **Local**, the approval status of the Text Document is reset to **Draft**.

If **Retain text document status** option is turned on when you copy the document, the document's approval status is retained as it is.

7. Define adequate permissions to view and edit Text Statements.

Whether or not your user can edit or perform approval actions on a Text Element is determined by the following settings and permissions:

- **Visibility** should be specified as **Editable**.
- If your Text Document Reference is a child of another document (for example an artwork), the **Expand Attributes (+)** column of the Parent document should be configured as **Editable**.
- The user should have appropriate Content Permissions. Read more in: [Managing Text Permissions](#) on page 523.



**Tip:**

Check these Project level permissions (**Project Details > Security**) to troubleshoot editing problems:

- **Change Properties**
- **Start/Stop Approval**
- **Upload new version**
- **Change Task**
- **Download**
- **View**
- **Add**

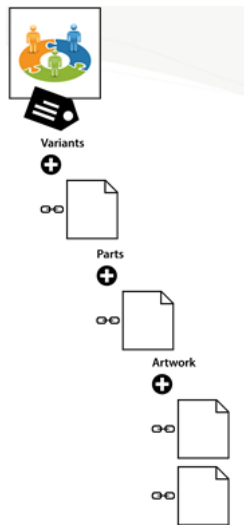


**Note:** The Text widgets, related languages and statuses are rendered only for Text Document References.

## How to Create a Functioning Document Reference System

You can make use of **Document References** to specify product and its components or master-child relationships. Using this feature, you can create an attribute link to refer to a document that is located within another project or a document library.

This advanced feature allows you to create a system of references (like a "hanger" for your related assets) to keep a product and its parts together even when they are not located together. For example, the CAD file, the artwork, the die and its leaflet. For a display, its language variants, parts and artwork together.



To create such document reference system, you need:

- Reusable components stored in the form of libraries
- Document Templates
- Version / Revision aware Document Reference Attributes and other Attributes
- Attribute Categories with your document reference attributes and other types of attributes


Follow the steps below to create an advanced document reference system.

### 1. Create WebCenter Projects as Libraries and organize your assets in them.

Examples for your libraries

- Structural design files for your packaging shapes

**Project: DEKE\_DSR\_Box\_Library**








**Manager:** Keizer, Debbie (DEKE)  
**Customer:**  
**Due On:**  
**Modified:** May 13, 2015  
**Description:**

---

ks (0) | Discussions (0) | Characteristics | Attributes | Project Information

Documents (15) **Actions** ▼

<input type="checkbox"/>		BOXCO_00001.ard (28KB)
<input type="checkbox"/>		BOXCO_00002.ard (28KB)
<input type="checkbox"/>		BOXCO_00003.ard (28KB)
<input type="checkbox"/>		BOXCO_00004.ard (28KB)
<input type="checkbox"/>		Boxes002.ard (28KB)

- Graphical design files from the creative agency
- Standard design elements such as your brand logo, company logo etc.
- Symbols such as recycle symbols, warning symbols, Quality Symbols etc.

**Project: DEKE\_Icon Library**



**Manager:** Keizer, Debbie (DEKE)  
**Customer:**  
**Due On:**  
**Modified:** Mar 27, 2015  
**Description:**

---

is (0) | Discussions (0) | Characteristics | Attributes | Project Informa

Documents (18) **Actions** ▼

<input type="checkbox"/>		Age0-3.png (167.1KB)
<input type="checkbox"/>		CE.png (52.6KB)
<input type="checkbox"/>		Dishwasher.png (58.4KB)
<input type="checkbox"/>		Fairtrade.png (86.4KB)
<input type="checkbox"/>		Flammable.png (88.5KB)

- Text Content Documents

- Barcodes

To organize further, you can create [advanced saved searches](#) or [SmartName searches](#).

**2. Create your Attributes and Attribute Categories** for the specification / packaging request.

For example, Production quantities, count, budget, material type, ink coverage, color, language variants, Barcode etc. Read:

- [Create a Document Reference Attribute](#) on page 374
- [Reference Category](#) on page 377

**3. Create Document Templates with Attributes.**

Your Project Managers can use [Document Templates](#) on page 171 as document placeholders for future project documents.

**Document Templates**

---

Please select the Template or Project that will serve as a Document Library:

Select:  Do not use a Document Library  
 Template  
 Project DEKE\_DSR\_Standards\_Library ▼

When the Document library contains ARD files, how do you want to use these ARD files when creating a new Document?

Always run the ARD as a standard  
 Run the ARD as a standard when the IsStandard Attribute is set to 'yes'  
 Never run the ARD as a standard

Save



**Note:** Link to the document templates in [document creation settings](#) of the Project Template.

**4. Create your document reference attributes and enable advanced features in grid layout.**

- a) Select **document reference** as the attribute type. **reference category** attribute (such as count) of the link. Read: [Create a Document Reference Attribute](#) on page 374.

Examples:

- Specify the **version / revision** of the document it should refer to.
  - Specify a **reference category** if you have properties that are specific to a document reference link. For example, count.
- b) Add the **document reference attribute** to an attribute category.
    - You can make the attribute **read-only / editable / required** by setting the **visibility**.
    - You can create a document reference where the user can add multiple documents by enabling **allow multiple values**.
    - You can use all the advanced features available in the **grid layout**.

**Edit Category DEKE\_Artwork**

Name:

Current View: Default [Add Creation View](#) [Add Header View](#) [Add View](#) [Edit Te](#)

Alternating background  
 Show also Attribute types and Restricted Set types  
 Keep session alive (avoid that people get logged off due to time out)

[Remove Grid Layout](#)

Attributes:

- \$dl\$Dieline
- \$dl\$DocumentLink1
- \$dl\$DocumentLinkRich
- \$dl\$Material
- \$dl\$POA
- \$dl\$Search
- \*tema\_Rich\_Text
- 00 Change Category
- 00 Change Order Number
- 00 Change Type
- 00 Description
- 00 Description of Changes
- 00 Initiator
- 00 Item Category
- 00 Item Number
- 00 Reason
- 00 Workflow
- 1
- 1 Admin per design
- 1 Analog flexo clichée / colour
- 1 Correct delivered AP
- 1 Courier charges TRN

Table structure:

[Title]Contact Information		
DEKE_Contact_DocRef		
[Spacer]		
[Title]CAD		
CAD_REFERENCE		
[Spacer]		
[Title]Color		
DEKE_Ink	DEKE_ICC Profile	
[Spacer]		
[Title]Icons		
DEKE_Icons		
[Spacer]		
[Title]Text Content		
DEKE_Text Content		

**Save** **Save As Copy** **Cancel**

Details for selected cell:

Attribute	CAD_REFERENCE
Attribute Type:	DocumentReference
Label:	Label Text: <input type="text"/>
	Label Image: <input type="text"/>
	Position: <span>Top</span>
Span Columns:	<span>1</span>
Style:	<span>Bold</span> <a href="#">Add Style</a> <a href="#">Edit Style</a> <a href="#">Delete Style</a>
Visibility:	<span>Editable</span> <a href="#">Add Rule</a>
Allow Multiple Values:	<input type="checkbox"/>
Reference Category:	CAD_ALIGNMENT_ATTRIBUTES
Version Mode:	Selected Revision
Document Source(s):	CAD_REFERENCE_Default <a href="#">?</a> <a href="#">Edit Configuration</a>
Rendering:	<span>Table</span> <a href="#">?</a> CAD_REFERENCE_Default <a href="#">Edit Render Configuration</a>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/

c) Configure the **document sources** for the references. Choose the operation (copy, link, move, or use by reference). Read more in: [Adding Document Sources for a Document Reference Attribute](#) on page 383

The document references will be shown as links in the final rendering as per the **document sources** settings you configure here.

### CAD

[Select CAD from Library](#) [↑↑ Upload CAD file](#) [Reuse from Current Project](#)

### Color

[Add Ink\(s\)](#)

### Icons

[Add Icon\(s\)](#)

- Create a custom **label** such as `Select CAD from Library`.
- Specify the source of the document. For example, a **saved search**.

	Source	Label	Details	Operation	Target Folder
⊗	Browse	Simple   Upload Box	Allowed Extensions: <input type="text"/> Document template selector: No document template selector	Upload	CAD
⊗	Saved Search	Simple   Add Box from Library	Search Name: * DEKE_DSR_Box_Library Document template selector: No document template selector	<input checked="" type="checkbox"/> Copy <input type="checkbox"/> Link <input checked="" type="checkbox"/> Move <input checked="" type="checkbox"/> Use By Reference	CAD
⊗	Document Templates	Simple   New Box from Standard	Document template selector: Limited options for document template Template(s): Box1.ard,Box2.ard,Box3.ard,Box	Copy	CAD

[Add Document Source](#) OK

- Specify the type of operation you would like your user to do. You can configure **copy**, **link**, **move** or **use by reference**.
- d) Configure how the documents should be listed and whether the users can modify some of the document properties. To do this, [create an advanced table rendering](#).
- 5. Create Project Templates and apply the document reference attributes and other attributes in an attribute category.**

Source | Document Template | Folder | Name | Description

Upload Artwork:  FireWorx\_vl...v\_clip2.pdf | Pantone CMYK Coated | Default (template) | FireWorx\_vindow\_clip2.pdf |

### Contact Information

[Add Contact from Library](#)

### CAD

[Select CAD from Library](#) | [Upload CAD file](#) | [Reuse from Current Project](#) 1

Preview	CAD file	Board	Version	Approval Status	Offset X	Offset Y	Orientation
	Select CAD from Library (Reference): fire.ard		1		<input type="text"/>	<input type="text"/>	<input type="text"/>

### Color

[Add Ink\(s\)](#) 2

Ink	Ink Name	Hex	Ink Coverage (%)	Opaque?
	Pantone Process Cyan C	#00ffff	<input type="text"/>	<input type="checkbox"/>
	Pantone Process Magenta C		<input type="text"/>	<input type="checkbox"/>
	Pantone Process Yellow C		<input type="text"/>	<input type="checkbox"/>
	Pantone Process Black C	#000000	<input type="text"/>	<input type="checkbox"/>

[Select ICC Profile for Proof](#)

Profile	Standard printing condition	Separation
CGATS21_CRPC6.icc	ISO DIS 15339-2	TAC: 320% GCR: Medium+ Max K: 100% TVI: CMY 16%, K19%

### Icons

[Add Icon\(s\)](#) 3

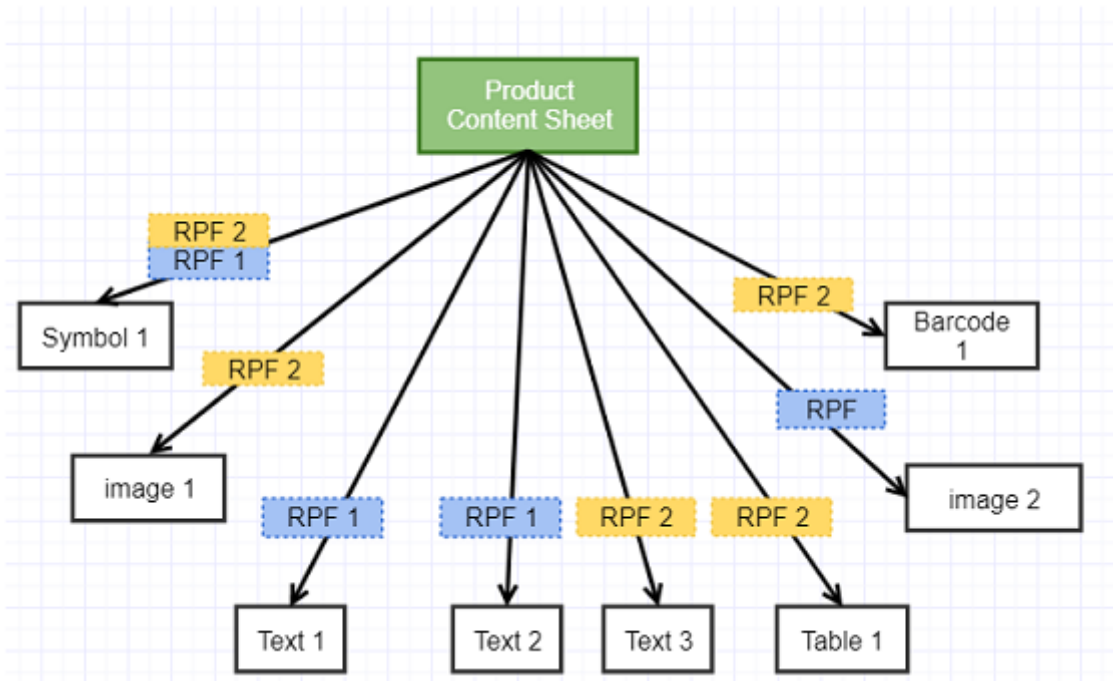
- Add Icon(s) (Reference): CE.png
- Add Icon(s) (Reference): Dishwasher.png
- Recycle2.png

- 1. CAD documents are rendered in a **Table** configuration. The header contains custom labeled **document sources**. You have editable reference properties such as offsets configured in the table.
- 2. The customized add ink link will take you to the inks library to choose your inks for the current project.
- 3. The configured Add icons link will take you to a saved search. This document reference attribute is rendered as **Simple**. Therefore, the references appear as a list.

You can have documents stored in the local folder or referred in document reference links. However, the user gets the view of both the local and referenced documents together.

### Referenced Property Filter

Reference Property Filter (RPF) is a restricted view of the reference property attribute category. It filters the attributes that are both part of the Reference property Attribute Category and the Project Attribute Category. For example,








Multiple products or artworks can reuse the same content like text, recipes, images and so on. To specify the context of using the content as reference, you have to filter the context, in which the content sheet can be used in the artwork. To know more about **Product Content Sheet**, read [Product Content Sheet](#) on page 1040.

**Configuring Reference Property Filter**

Reference Property Filter is available only, when a reference property attribute category is defined for the Document Reference Attribute. It will show the attributes in the reference property attribute category which are also present in the Project Attribute Category of the document or in a Document Attribute Category and have values.



This configuration is used to display the column of the reference properties which defines the reference property filter of the document

<span>+ Upload</span> <span>+ New</span> <span>+ Link</span> <span>+ Search</span>			
Thumbnail	Name	Scope Flavour	Scope
	<span>Variant</span> Variant_1.wcc	Chocolate X Apple + Lime Twist X Tropical Blend X	Multipack
	<span>Marketing copy</span> Marketing copy_3.wcc	Apple + Lime Twist X	Multipack
	<span>Marketing copy</span> Marketing copy_4.wcc	Tropical Blend X Coconut & Berry X	Multipack
	<span>Recycle statement</span> Recycle statement_1.wcc	Apple + Lime Twist X	Simple
	<span>Marketing copy</span> Marketing copy_5.wcc	Strawberry X	Multipack

reference.



**Note:**

It is important add the values as attributes in the Project or Document to render the same in the Reference Property Filter.

In the above image **Scope Flavor** and **Scope Outputs** are the **Reference property Filters** and the values Chocolate, Apple+ Lime Twist or multipack are the attributes defined in the attribute category of the project.

Reference property is allowed to have the values only from the project attribute category.

**Viewing Reference Property Filter**

Reference Property Filter can be viewed in the **Attributes** tab of a Project or Document.

<span>+ Upload</span> <span>+ New</span> <span>+ Link</span> <span>+ Search</span>			
Thumbnail	Name	Scope Flavour	Scope Output
	<b>Variant</b> Variant_1.wcc	Chocolate X Apple + Lime Twist X Tropical Blend X	Multi Pack X
	<b>Marketing copy</b> Marketing copy_3.wcc	Apple + Lime Twist X	Multi Pack X Single Pack X

In the render configuration for the header row, the details and the label are not applicable and the width is always set to auto. You can collapse or expand the columns to view.

### Copy Document References

You can create new projects from the template projects with an option to copy all the document references along with them. You have both the option to copy only the local references or copy all the references in multiple levels.

You can use this also in **Task Specifications**, "Documents" section of Project Creation page and Task Execution page.

While copying, along with the documents all the attributes including their values are also copied.

To enable copying of the Document Reference Attributes, the Document sources in the Attribute Category of the document has to be configured.

**Edit Document Sources Configuration**

ANKR\_ATTR\_DOCREF2\_Default

Source	Label	Details	Operation	Target Folder
<input type="checkbox"/> Saved Search	Simple Basic Copy	Search Name: SOBK_Image Search Document Template selector: Any Document Template configured Copy Operation: Basic Copy	<input checked="" type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move <input type="checkbox"/> Use By Reference	Folder2
<input type="checkbox"/> Saved Search	Simple Deep Copy	Search Name: SOBK_Graphics & ArtiosCAD Library Search Document Template selector: Any Document Template configured Copy Operation: Copy with Local References	<input checked="" type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move <input type="checkbox"/> Use By Reference	Folder1
<input type="checkbox"/> Document Templates	Simple Deep copy All	Document Template selector: Any Document Template configured Copy Operation: Copy with All References	<input type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move <input type="checkbox"/> Use By Reference	Copy
<input type="checkbox"/> Current Project	Standard Link		<input type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move <input type="checkbox"/> Use By Reference	Link

Only the following document sources can be configured for **Copy Action**:

- Document Template (New)
- Saved Search
- Copy from Project

There are three options to copy that you can configure namely:

- **Basic Copy** – Only the selected document is copied to the destination project. Document references of the newly created (copied) documents are set to reference the same documents as the original/ source document(s).
- **Copy with Local References**– Selected document and all documents referenced by it that are from the same source project are copied to the destination project.
- **Copy with All References** Selected document with all document it references are copied to the destination project, irrespective of the project it is located.



**Note:** Copy Actions are not supported in BOM documents tables/sections and also when copying a document from Documents page in Project Details.

## 3.16. Create Assembly documents using Document References

---

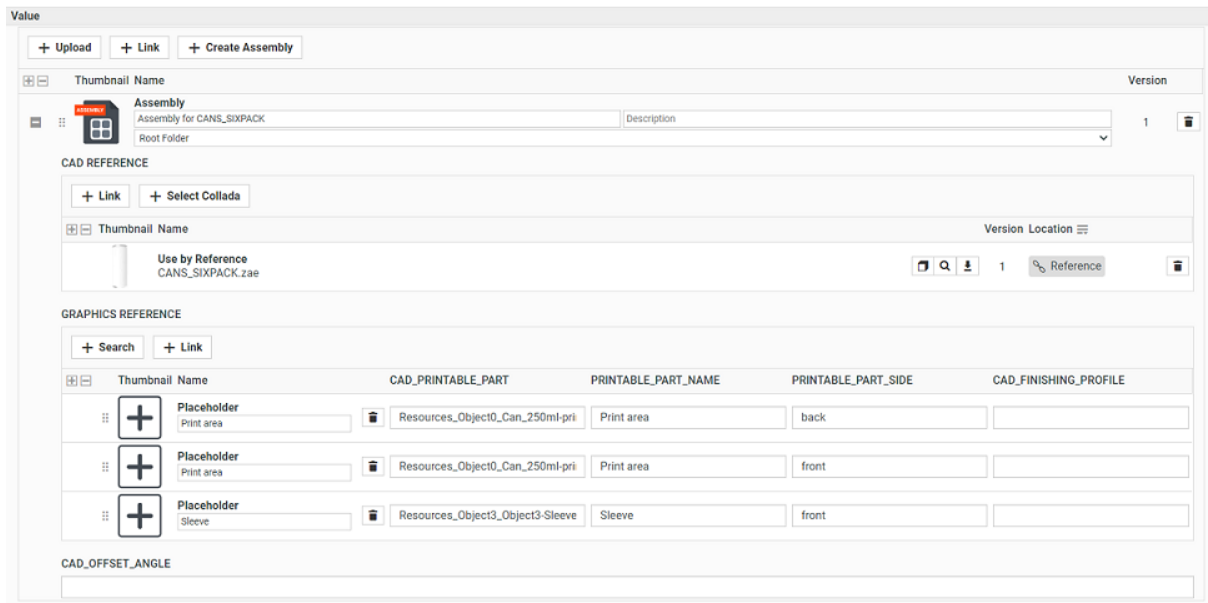
Assembly document is a component document that consists of a bunch of document references namely a structured document (a 3D model of a product with defined printable parts as attribute values to that document) and graphical references to the artworks required, that can be viewed and edited in the WebCenter Viewer. This is one of the critical and most important step in the process of creating and viewing pack shots in WebCenter.

Follow the steps below to **Create Assembly**:

1. Create a Saved Search for collada files( structured documents). Collada files should contain the printable parts referenced ( added to it).
2. Create an attribute category representing the assembly called **DEFAULT ASSEMBLY CATEGORY**.
3. **DEFAULT ASSEMBLY CATEGORY** should have two Document reference attributes namely
  - a. **CAD\_REFERENCE** attribute that can contain only one document.
  - b. **GRAPHICS\_REFERENCE** should have a reference Category, e.g **CAD\_REFERENCE\_PROPERTIES**, that contains the following attributes. These attributes should also be added in the rendering configuration.
    - a. CAD\_PRINTABLE\_PART
    - b. CAD\_PRINTABLE\_PART\_SIDE
    - c. CAD\_PRINTABLE\_PART\_NAME
    - d. CAD\_FINISHING\_PROFILE

GRAPHICS\_REFERENCE should be configured to accept more than one document as it can contain references to the multiple labels ( like front, back, top) required for the structured document.

Using the specified Attributes and Attribute Categories, users with **Add** and **Change Properties** permissions can create an assembly file from a structural file. Upon selecting the Structure document, an Assembly document is created, containing the selected Structure Document in the CAD\_REFERENCE attribute, and placeholders for graphics documents in the GRAPHICS\_REFERENCE attribute, based on the printable parts of the Structure document. Before submitting the form, you are already able to replace these placeholders with the actual artwork.



Default Assembly Category has a Saved Search configured as a Document source with **Create Assembly** as an operation.

**Create Assembly** document operation can be used in all places, where Saved Search is used as a document source within a Documents table. You can set a different default target folder for Placeholder documents and Graphic documents when you are configuring the document source of the (document reference) attribute.

Operation	Target	Target Folder
<input type="checkbox"/> Copy		
<input type="checkbox"/> Link		
<input type="checkbox"/> Move	<input checked="" type="checkbox"/> Add	Assembly
<input type="checkbox"/> Use by Reference	<input checked="" type="checkbox"/> Replace	Placeholders
<input checked="" type="checkbox"/> Create Assembly		

### 3.17. CAD Options

Use the **CAD** menu to set options related to working with ArtiosCAD.

WebCenter allows you to:

- create a CAD document from a standard directly WebCenter
- view the CAD documents with folding angles in 3D
- view CAD documents in the Viewer

- search for CAD documents

### 3.17.1. CAD Download Format

#### Synchronize with Defaults

WebCenter administrators can download ArtiosCAD files in different formats as specified in **Defaults** of the ArtiosCAD instance running on the Application Server.

On the **CAD > CAD Download Formats** page, you can enable or disable download formats for all users.

Click the **Synchronize** button to import the settings from ArtiosCAD **Defaults**. A successful status message should appear after a few moments, and the list of formats is populated. Select the formats you want to make available for the users.



**Note:** The three native ArtiosCAD formats (ARD, MFG and ACD) do not require any configuration.

#### Download formats and users

User and group permissions for the download formats are set in **Users > select user > Download and Groups > select group > Download**, respectively. You must set permissions on the formats before users can download documents.



**Note:** Members of the Admins group are granted all download format permissions by default, and the Change and Use Group Permissions buttons are unavailable when attempting to change permissions for those users.

#### Non-cached ArtiosCAD Download formats

The WebCenter configuration has been extended with an option to not cache specific download formats to support dynamic ArtiosCAD download formats.

Currently, the CAD Download Formats for a given document version are by default generated and cached in the system when first downloaded by a user. Subsequent users downloading the same download format get the same cached file. The caching behavior is controlled for every CAD document type and download format.

Examples of dynamic download formats where turning caching off could be needed are Bill of Materials reports and reports that are based on meta-data that can be edited directly in WebCenter.

To turn off the caching for a given document type and download format:

1. Go to **Admin > CAD > CAD Download Formats**.
2. Go to the respective document type and download format and unselect the respective check box.
3. Save the changes to disable the caching and delete any cached data for the selected download type and document format system wide.

There is no Cache option for the ArtiosCAD format (native document) as this format is always available.

### 3.17.2. Boards

The **CAD > Boards** page shows the types of boards that can be used for CAD designs (paper, corrugated board, folding carton...).

These boards are defined in ArtiosCAD. They cannot be edited, created or deleted from WebCenter. However, you can set the boards' default location(s) and use them in a Restricted Set.

### Assigning a Board to a Company or Location

You can assign a specific board to a **Company**, or a **Location** of that company.

1. In the **CAD > Boards** page, browse the Boards tree to find the board you are interested in.
2. Click that board to show the **Edit Default Locations for board ...** page.



**Note:** You can only assign boards to companies/locations, not boards folders.

3. On that page, select the companies/locations to associate with this board, and click **Finish**.



**Tip:** If you want to assign this board to all companies/locations, select the checkbox next to **Company** at the top.

The users in these companies/locations will see the board as default.

### Creating a Boards Restricted Set

You can create a Restricted Set of boards, so that users can pick from a short list of relevant boards when creating a design.

To do this, click **Create Boards in Restricted Set**, then add boards to the Restricted Set as explained in [Create a Restricted Set](#) on page 320.



**Note:** The data **Type** is always **Text** in a boards Restricted Set.

## 3.17.3. Run a CAD Standard from WebCenter

A **CAD standard** is a default ArtiosCAD document, to be customized with **parameters** supplied by the user to make a design. This will be a 2D design, that can be made 3D if the standard has fold information.

In WebCenter, an **ARD document template** is used as the CAD standard, and **attributes** are used as the parameters needed to make the design.

In practice, you create a new document from the ARD document template, filling in the template's attributes' values to give your parameters.

### CAD Standard Configuration

You need to:

1. Set up an attribute category containing the attributes necessary to create the design, and their default values.
2. Set up a document template with this attribute category.

### Create an Attribute Category


You will need to create attributes that match the CAD standard's parameters in ArtiosCAD. They must have the **same name** as the corresponding parameters, and any parameter required in ArtiosCAD must translate into a **Required** attribute in WebCenter.

Generally, you will use at least **BOARD** (this is always **Required**), and mostly **L** (length), **W** (width) and **D** (depth).

**BOARD** parameter: Creating different board attributes will allow the usage of different board restricted sets. Attributes will be selected by WebCenter, if the name of the attribute starts with "**BOARD**".

Other parameters are less standardized. You need the person who built the standard to clearly indicate which parameters are needed.

Here is an overview table of the attributes you will probably need the most:

Attribute	Use case	Values
<b>BOARD</b>	The type of board to use for the design. Used for every CAD standard (this is a <b>Required</b> attribute).	A <b>Restricted Set</b> of <b>Text</b> type. Set your desired values in the Restricted Set.
<b>L, W and D</b>	Length, Width and Depth. Used for most CAD standards.	<b>Prompted</b> values (the user can set what he/she wants) of <b>Distance</b> (in,mm), <b>Distance</b> (in,m) or <b>Float</b> type.
<b>ISSTANDARD</b>	To indicate if an ARD document template should be used to run CAD standards or not. <ul style="list-style-type: none"> <li>ARD document templates to be used for CAD standards should have <b>YES</b> as <b>ISSTANDARD</b> value.</li> <li>ARD document templates NOT to be used for CAD standards should have <b>NO</b> as <b>ISSTANDARD</b> value.</li> </ul> This should be a <b>Hidden</b> attribute.	A <b>Restricted Set</b> of <b>Text</b> type. The values in the Restricted Set must be <b>YES</b> and <b>NO</b> .
<b>UNITS</b>	To set units other than the user's default units. If no unit is set, the standard will be run in the units set in <b>My WebCenter &gt; My Preferences</b> by the user.	A <b>Restricted Set</b> of <b>Text</b> type. The values in the Restricted Set must be <b>mm</b> and <b>in</b> . <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> Value of the Units attribute is not considered when using distance attributes for L,W and D.                     </div>
<b>ISCORRUGATED</b>	To indicate whether the resulting design should be corrugated.	A <b>Restricted Set</b> of <b>Text</b> type.

Attribute	Use case	Values
	If this attribute is not present, the design is understood NOT to be corrugated.	The values in the Restricted Set must be <b>true</b> and <b>false</b> .
<b>GRAIN</b>	To indicate the direction of the flute/grain of the design being created by running the standard.	A <b>Restricted Set</b> of <b>Text</b> type. The supported values for this attribute are <b>Horizontal</b> , <b>Vertical</b> and <b>Standard</b> .  If the value chosen is <b>Standard</b> , then the created design will have the same flute/grain direction as the Standard that is being used.  If no value is mentioned, then vertical is taken as default.
<b>SIDE</b>	To indicate the print side of the design that is created by running the standard.	A <b>Restricted Set</b> of <b>Text</b> type. The supported values for this attribute are <b>Inside</b> , <b>Outside</b> and <b>Standard</b> . If the value chosen is <b>Standard</b> , then the design created will have the same print side as the standard that is being used.  If no value is mentioned, then the print side will be <b>Outside</b> .

1. Create the **Restricted Sets** needed by your attributes as listed in the table above.  
See [Create a Restricted Set](#) on page 320 for details.
2. Create your attributes (the ones listed in the table above as applicable, and any other attribute you may need to run your particular CAD standards).  
Assign the relevant Restricted Sets to your attributes. See [Create an Attribute](#) on page 322 for details.
3. [Create an attribute category](#) containing all the attributes you have just created.
4. [Add a Creation View](#) to your attribute category and click [Use Grid Layout](#).
  - a) Make the **BOARD** attribute **Required**.
  - b) If you are using the **ISSTANDARD** attribute, make it **Hidden**.
  - c) Change the **Visibility** of your other attributes as desired.



**Tip:** You can add use a **Label** to change how your attributes appear to the user (for example, you can show the **L** attribute as **Length**).



**Note:**

If you want to work with several CAD standards, you can either reuse this attribute category for more designs, or create more attribute categories.

### Create an ARD Document Template

You now need to set up an ARD document template using the attribute category [you just created](#).



For this, you need to use an ARD document corresponding to the CAD standard in ArtiosCAD (same default design).

1. Set up your **Document Library** as explained in [Create Document Templates](#) on page 172.
2. Upload your ARD file into the **Document Library**.
3. Link the attribute category you just created to this ARD file.
4. Point to the **Document Library** in:
  - existing projects in which you want to create a design from a CAD standard,
  - project templates that will be used to create projects with designs from CAD standards.

See [Create Document Templates](#) on page 172 for details.

### Run a Standard in an Existing Project

To create a design from a CAD standard in an existing project:

1. If your project isn't already linked to the **Document Library**:
  - a) In the **Project Details** page, click **Configure** then **Document Templates**.
  - b) Select **Template**, then select your document library in the list.

The screenshot shows the 'Configure' page with the following elements:

- Navigation tabs: Documents (0), Tasks (1), Attributes, Project Information, Approval, Members, Security, **Configure**.
- Sub-tabs: Workflow Connection, **Document Templates**, Project Creation, Document Types, Document Creation, Project Statuses.
- Text: "Please select the Template or Project that will serve as a Document Library"
- Radio buttons:
  - Do not use a Document Library
  - Template
  - Project
- Dropdown menu: PCM Text Templates
- Text: "When the Document library contains ARD files, how do you want to use these ARD files when creating a new Document?"
- Radio buttons:
  - Always run the ARD as a standard
  - Run the ARD as a standard when the IsStandard Attribute is set to 'yes'
  - Never run the ARD as a standard
- Save button

- c) Under **When the document library contains ARD files...**, select either:



**Note:** Run a Standard option for CAD documents is available with WebCenter Life cycle Management license.

- **Always run the ARD as a standard** if you want to be able to use any ARD document template in the document library to run a CAD standard
- **Run the ARD as a standard when the IsStandard attribute is set to 1** if you only want to use some ARD document templates to run CAD standards.

These ARD document templates must have the **ISSTANDARD** attribute assigned, with the default value set to YES (see [Create an Attribute Category](#) on page 417).

- d) Click **Save**.
- 2. Create a design from your ARD document template:
  - a) Click the **Upload** button.
  - b) Select **New** in the **Source** list and select your ARD document template.
  - c) Fill in the **Attributes** as desired.  
For example, specify the **BOARD** to use, and the **L** (length), **W** (width) and **D** (depth) of the design.
  - d) Click **Upload**.



**Note:** This is only possible through the normal WebCenter upload (see [Uploading a Document via Upload](#) on page 610 and [Copy / Create Multiple Documents](#) on page 613), not when uploading documents from other applications like Automation Engine and ArtiosCAD.

Your design is created. You can click its thumbnail to view it in the Viewer.

### Run a Standard at Project Creation

To create a design from a CAD standard when creating a project from a project template:

- 1. If your project template isn't already linked to the **Document Library**:
  - a) In the **Project Details** page, click **Configure** then **Document Templates**.
  - b) Select **Template**, then select your document library in the list.
  - c) Under **When the document library contains ARD files...**, select either:

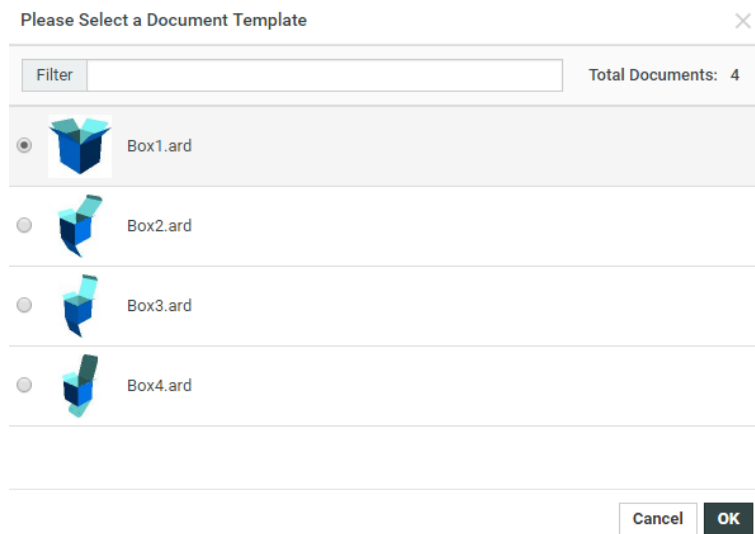


**Note:** Run a Standard option for CAD documents is available with WebCenter Life cycle Management license.

- **Always run the ARD as a standard** if you want to be able to use any ARD document template in the document library to run a CAD standard
- **Run the ARD as a standard when the IsStandard attribute is set to 1** if you only want to use some ARD document templates to run CAD standards.

These ARD document templates must have the **ISSTANDARD** attribute assigned, with the default value set to **YES** (see [Create an Attribute Category](#) on page 417).

- d) Click **Save**.
- 2. When [creating a project from your project template](#):
  - a) Click **New** in the **Documents** section of the **Create Project** page.
  - b) Select your ARD document template from the pop-up and click **OK**.



**Tip:**

If you have many ARD document templates, use the **Filter** field to filter them alphabetically on the file name.

You can also filter them based on document characteristics if you have created a custom project creation page to do so (see [Create a Project and Run a CAD Standard](#) on page 1103 in the Customization Guide).

- c) Fill in the attributes to use in the **Documents** section.  
For example, specify the **BOARD** to use, and the **L** (length), **W** (width) and **D** (depth) of the design.
- d) Fill in the rest of the project settings as desired and click **Create Project**.

Your project containing your design is created.

### 3.17.4. Canvas related Attribute Categories

A **document reference** attribute and two attribute categories are created by default in WebCenter during the installation or upgrade.

These will create a document reference system to contain different Canvas parts saved to WebCenter:

- The default **document reference attribute** named as **CANVAS PARTS**.
- This default empty **CANVAS REFERENCE CATEGORY**. This category will contain the **reference attributes** associated with the **CANVAS PARTS** attribute.
- The default **DEFAULT CANVAS CATEGORY** will contain the the **CANVAS PARTS**. This allows the ArtiosCAD Enterprise client to save managed parts as individual document reference values.



**Note:**

During an update, these **attributes** will get created if they do not exist yet.

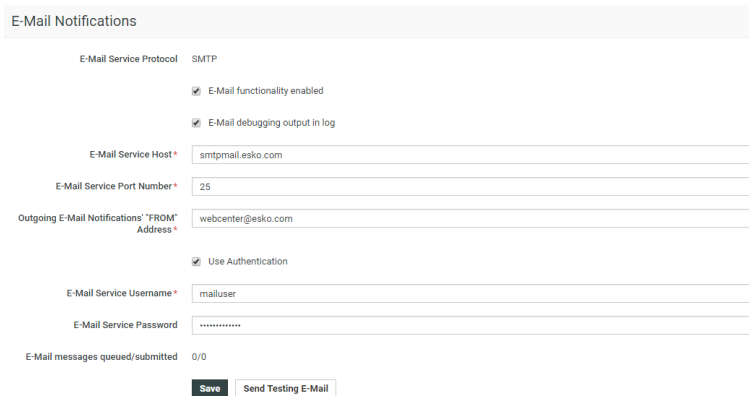
## 3.18. WebCenter Configuration

The Configuration menu contains entries for configuring e-mail notifications, LDAP authentication, push-through folders, BackStage / Automation Engine Approval clients, the System Info page, etc.

### 3.18.1. Configure E-Mail

You can set up e-mail configuration using the Admin module. All changes to the setup are effective immediately.

1. Click **Admin > Configuration > E-Mail Environment Setup**.



The screenshot shows the 'E-Mail Notifications' configuration page. It includes the following fields and options:

- E-Mail Service Protocol:** SMTP
- E-Mail functionality enabled
- E-Mail debugging output in log
- E-Mail Service Host:** smtpmail.esko.com
- E-Mail Service Port Number:** 25
- Outgoing E-Mail Notifications "FROM" Address:** webcenter@esko.com
- Use Authentication
- E-Mail Service Username:** mailuser
- E-Mail Service Password:** [masked]
- E-Mail messages queued/submitted:** 0/0
- Buttons:** Save, Send Testing E-Mail

2. Provide the required e-mail settings:

Configuration Option	Description
<b>E-Mail Service Protocol</b>	Set to the SMTP protocol.
<b>E-Mail functionality enabled</b>	To enable/disable e-mail functionality.
<b>E-Mail debugging output in log</b>	To enable/disable e-mail debugging output in log files.
<b>E-Mail Service Host</b>	Address for the preferred mail server that will act as the server for dispatching e-mail notifications.
<b>E-Mail Service Port Number</b>	Port number on which the e-mail server is listening for incoming e-mails.
<b>Outgoing E-Mail Notifications "FROM" Address</b>	Supply a valid e-mail address. This will be used as the "From" e-mail header for every e-mail sent by the system. This information is important for returning undelivered mail (the filled-in address should belong to the administrator, since he will most likely be addressed with undelivered mail for troubleshooting).

Configuration Option	Description
<b>E-Mail Session Authentication</b>	Select this option if the mail server connection session should be authenticated using a username and password.
<b>E-Mail Service Username</b>	Mail account user name when authentication is required.
<b>E-Mail Service Password</b>	Mail account password when authentication is required. The password is stored in encrypted format.

3. Click **Send Testing E-Mail**.
4. Edit the contents of the test e-mail if required.
5. Click **Send E-Mail**.

A response will appear stating whether or not the e-mail could be sent successfully. There are 3 possible outcomes of the e-mail environment testing page:

- **Test E-Mail Sent:** The environment is set up correctly.
- **JMS System Error:** Communication with the JBoss proprietary messaging framework failed. An administrator should check the JBoss server configuration and/or log files for possible causes.
- **Mail Server Connection Error:** The connection to the specified mail server did not succeed. Either the data the administrator supplied on the e-mail environment setup page was incorrect, or the mail server is currently down. An administrator should either check the e-mail environment settings for possible misspellings or contact the mail provider as to the status of the mail server.

6. If necessary, return to the configuration page and correct the settings.



**Note:** System History Logs All changes/events in this page are recorded and stored in the System History page for Administrator users. Read this page on how to access the [records](#).

### 3.18.2. Configure Search Crawler Setup

You can change the **Search Crawler Setup** from **Admin > Configuration > Search Crawler Setup**. All the below mentioned actions can only be performed by the Admin users.

1. Enable **Rebuild Index on Restart** option to allow or disallow rebuilding the index upon search crawler restart (default is enabled).
2. Enable **Index Document Revisions** to index all the **Document Revisions**. If this is not enabled, only the **Latest Version** for every Document is indexed. If this option is enabled, users can search for the revisions on the Document Search page.
3. To skip the indexing of Workflow Tasks, you can disable **Index Workflow Tasks**. Changing this option will trigger re-indexing. When this option is disabled, you cannot search for workflows in the Task Search.
4. Enable **Index Any level Document Reference** to search the entire Document referenced within WebCenter and return in the search result when the document search is executed.
5. Enable **Index all currently referenced Document Versions** to add the earlier versions of the referenced document to the search index. The index will be rebuilt once this option has been changed in the setup.

6. Enable **Index all currently referenced Document Versions** to add the earlier versions of the referenced document to the search index. The index will be rebuilt once this option has been changed in the setup.

**Status**

**Last crawl activity** shows the date and time of the last search crawl activity and **Crawl Tasks Waiting** shows the pending crawl tasks.



**Note:** System History Logs All changes/events in this page are recorded and stored in the System History page for Administrator users. Read this page on how to access the [records](#).

**Prioritize indexing**

When upgrading or making certain configuration changes, WebCenter needs to rebuild its search index. When Prioritized Indexing is enabled, more resources are allocated towards building the Index. This reduces the total time needed for a rebuild. Prioritizing Indexing may slow down other processes: user actions might become slower because more resources are used for indexing.

This feature can be enabled/disabled without restarting WebCenter. We recommend to only enable when a full re-index of the system is required and preferable when the system is not used for normal operation.

**Index Live Text in Documents**

**Search Crawler Setup** in the configuration menu has an option choose whether to **Index Live Text in Documents** or not. This allows enabling or disabling of **Document Content** indexing which is disabled by default.

Changing the state of the option, results in a full re-indexing of the document content. In such a case, Documents are not re-indexed but only the document content is re-indexed which means Document Search will find all results while the document content indexing is ongoing.



**Note:** When the option is turned off, the search index with document content is cleared to save space.

### 3.18.3. Configure External Web Connections

An external web connection is a connection to some data in an external system (usually a MIS system). The MIS system calculates the data (for example the cost/price information for an order) and WebCenter retrieves this data through the external web connection and displays it on a WebCenter page.

After configuring the external web connection, you can choose to add a link to it in a WebCenter top-level menu, project menu or a **My Work** section. See the Customization Guide for more details.

**System History Logs**

All External Web Connection events like

- **External Web Connection Created**
- **External Web Connection Deleted** and
- **External Web Connections Changed**

are recorded and stored in System History. Read this page on how to access the records [System History](#) on page 456

### Create an External Web Connection

1. Go to **Admin > Configuration > External Web Connections**.
2. Click the **New External Web Connection** link in the **External Web Connections** page.
3. Enter the **Name** to give your external web connection.
4. Enter the **URL** of the data you want to retrieve in your external system. This needs to be accessible by either the WebCenter Application Server or Web Server.

You can use [SmartNames](#) in the URL. The supported SmartNames are:

- all basic project properties (see [List of Available SmartNames](#) on page 471),
- all project attributes,
- Requestor SmartNames ([Requestor UserName], [Requestor Location], etc...). Here, Requestor indicates the user who is logged in.

These SmartNames will be resolved when activating the connection, depending on the context. This means that for example:

- if you are using the [Requestor UserName] SmartName, it will be resolved to the name of the user currently logged in to WebCenter (the one clicking the link to the external web connection).
- if you are using the [Project Name] SmartName, it will be resolved to the name of the current project.

So if you are using an order ID as project name and you want to connect to an external system containing information about that order ID, whose URL is `http://ExternalSystem/OrderInformation.jsp`, then you can use `http://ExternalSystem/OrderInformation.jsp?orderID=[Project Name]` as URL here.

This will be resolved to for example: `http://ExternalSystem/OrderInformation.jsp?orderID=Order_83289`.



**Note:** When using SmartNames, you should take into account where the connection will be used from (where in WebCenter it will be integrated).

- You can use user-related SmartNames (such as [Requestor UserName]) if the connection is to be added to a top-level menu or a My Work section.
- You can use user-related and project-related SmartNames (such as [Project Name]) if the connection is to be added to a project menu.

See the Customization Guide for information about integrating a link to an external web connection into the WebCenter user interface.

5. In **Type**, select if your external system outputs **HTML** or **XML**.



**Note:** If your external system outputs **XML**, you will need an XSL (eXtensible Stylesheet Language) file to transform this to HTML and display it in WebCenter. Your WebCenter installation comes with an example XSL file, that you can customize.

See the Customization Guide for more details.

- Click the **Test** button to test the connection to your external system. You should see a green check mark if the connection is successful.



**Note:** The test button will only check whether or not the main URL is reachable. It will not take into account any SmartName used to pass on parameters, as SmartNames have to be resolved from a specific context in WebCenter.

In the example above, the test will try to connect to `http://ExternalSystem/OrderInformation.jsp`, and not to `http://ExternalSystem/OrderInformation.jsp?orderID=[Project Name]`.

### Edit an External Web Connection

- To edit an external web connection, click its name in the **External Web Connections** page.



**Attention:** If you change the name of a connection here, you will also need to change it in the customization files used to integrate a link to this connection into the WebCenter user interface!

See the Customization Guide for more details.

### Make Direct External Web Calls

You can directly call to a service instead of adding the External web calls to the menu or Homepage Sections. This can be done with the call:

```
GetExternalWebInfo.jsp
```

The call takes the same parameters as the previously mentioned calls. For example, this call can be used in a javascript button in the Attribute Category (using CustomFormExtensions).

**Example: A SOAP call made out of JavaScript .This function could be added in CustomFormExtensions.js**

```
soap: function(atts) {
  var extWebConn = "SOAPService"; // name of connection

  var attr1 = atts['attr1'];
  var attr2 = atts['attr2'];
  var attr3 = atts['attr3'];

  var body = "<?xml version='1.0' encoding='utf-8' standalone='no'?">"
  + "<soap:Envelope schema_params"
  + " <soap:Body"
  + " <Operation xmlns='http://tempuri.org/'>"
  + " <Request"
  + " <data"
  + " <attr1">"+ attr1+"</ attr1"
  + " <attr2">"+ attr2+"</ attr2"
  + " <attr3">"+ attr3+"</ attr3"
}
```



```

+ "      </data>"
+ "      </Request>"
+ "    </ Operation >"
+ "  </soap:Body>"
+ "</soap:Envelope>";

var formData = new FormData();
formData.append("externalwebconfigname", extWebConn);
formData.append("requestbody", body);
formData.append("requestmethod", "POST");
formData.append("requestheader",
"Content-type:text/xml; charset=utf-8");
formData.append("requestheader",
"SOAPAction:http://tempuri.org/CalculateNewQuote");
formData.append("responsetype", "application/xml");
formData.append("callfromwebserver", "1");

$.ajax({
  url: "GetExternalWebInfo.jsp",
  dataType : "xml",
  type: 'POST',
  enctype: 'multipart/form-data',
  cache: false,
  processData: false,
  contentType: false,
  data: formData,
  async: false
})
.done(_.bind(function(data){
  // Read and handle data
}, this))
.fail(_.bind(function(err, status, errStr){
  alert("Request failed: " + errStr);
}, this));
}

```

### Add Parameters to a direct call dynamically

Parameters cannot be always resolved by SmartNames. For example, when we make a calculation with attributes and need to pass this as a parameter.

To resolve this use the parameter **requestparams**. The content of this parameter will be appended to the URL called by the server. The content of the parameter should have the format **param1=value1&param2=value2&...**

Note that URL encoding should be used when appending to the external web connection URL.

```

If ExternalWebConfig has URL https://www.google.com/, then
GetExternalWebInfo.jsp?
ExternalWebConfigName=ExternalWebConfig
&requestparams=q%3Dtest (URL encoded "q=test")
will resolve to https://www.google.com/?q=test

```

### Change Request Method

It is possible to call a service both with the GET or with the POST method. The default method will be GET.

To choose the request method, add a parameter **requestmethod** which can have a value GET or POST. For example

```

GetExternalWebInfo.jsp?
ExternalWebConfigName=ExternalWebConfig3
&method=POST

```

The parameter is available for `GetExternalWebInfo.jsp`, `myexternalwebinfo.jsp` and `projdetailsexternalwebinfo.jsp`

### Change Response Type

It is possible to have another result than HTML. To do that, you will have to pass which response type you want. This can be done by adding a parameter **reponseType**. The response type has to be a valid MIME type. For example,

```
GetExternalWebInfo.jsp?
ExternalWebConfigName=ExternalWebConfig3
&reponseType=application/json
```

The parameter is available for `GetExternalWebInfo.jsp`, `myexternalwebinfo.jsp` and `projdetailsexternalwebinfo.jsp`.

### Add Request Headers

It might be required to add request headers to some calls. It is possible to pass these headers along. This can be done by adding one or multiple instances of the parameter **requestheader**.

These have to be in the following format: `<request_name>:<request_value`

```
GetExternalWebInfo.jsp?
ExternalWebConfigName=ExternalWebConfig3
&requestheader=Cache-Control:No-Cache
&requestheader=Pragma:No-Cache
&requestheader=Expires:0
```

The parameter is available for `GetExternalWebInfo.jsp`, `myexternalwebinfo.jsp` and `projdetailsexternalwebinfo.jsp`.

### Add Request Body

For some calls, it might be required to add a request body to the call. It is possible to pass this body along.

This can be done by adding the parameter **requestbody**, with the needed request body as value.

```
GetExternalWebInfo.jsp?
ExternalWebConfigName=ExternalWebConfig3
&requestbody= <soap:Envelope ...></soap:Envelope>
```

The parameter is available for `GetExternalWebInfo.jsp`, `myexternalwebinfo.jsp` and `projdetailsexternalwebinfo.jsp`.

### Delete an External Web Connection

- To delete one or more external web connections, select it/them on the **External Web Connections** page and select **Delete External Web Connection(s)** in the action menu.



**Attention:** Deleting a connection that is in use will break the pages that use that connection. The system will show an error message on these pages.

### 3.18.4. Configure External API Connections

An External API Connection allows you to connect to an external system through an HTTP/HTTPS REST API. The API Connection configuration can have secrets that are automatically injected when making calls to external systems. Having external API connections configured in WebCenter allows you to centrally manage these connections and to hide secrets from WebCenter users/administrators.

#### Configuration

Supported Methods:

- Token
- No authentication
- Bearer Token



**Note:** For Bearer Token based authentication, the **Value of the Token** settings need to be configured. The token will be added in the Authorization header of the HTTP request in the format Authorization: **Bearer <TOKEN>**.

A configured API has the following properties:

- a unique **Name**, which is used to refer to the service from within WebCenter
- a **Description**
- a **Base URL**, which is the URL of the endpoint that can be accessed on the external system. Scripts can execute requests to subpaths of the base URL. They cannot do calls that are outside the Base URL.
- (Optional) **Authentication Configuration**. Currently Token based authentication or no authentication is supported.

For token based authentication, the following settings need to be configured:

- the **Location** in the request where you want to use the authentication: this can be in the request header or in the query parameters.
- the request **Header Name** or the **Query Parameter Name** where you want to insert the token.
- the **Value** of the token.

#### Use

In dashboard scripts you can do a request to an external system by doing `API.doExternalAPICall(...)`. You can specify which HTTP method should be used to do the call (GET/POST/PUT/PATCH) and which path on the external system should be requested. The path is always relative to the Base URL in the External API Connection configuration. Optionally you can provide **headers**, **query parameters** and the **request body** (i.e. JSON object as a string or formdata as a map of key value pairs.). `doExternalAPICall` returns a result object which allows you to read the status code, body and headers of the response of the external system.

This functionality is also available in the **Execute Javascript** workflow node and **JavaScript RuleActions** in addition to dashboard scripts.



**Note:** Do not use secrets in scripts. Configure them in the API Configuration.



**Note:** Calls to external systems are slow and are not cached. Avoid using them in **Validation** and **Visibility Scripts**.

### 3.18.5. Configure Workflow Connections

With a workflow connection, creating a project in WebCenter can automatically create a linked job in Automation Engine or any JDF-enabled workflow.

This way, the project files can automatically be copied into the workflow job (if desired), and the job parameters can be defined from WebCenter, based on project information and attributes.

This means that:

- WebCenter can act as the single interface for your customers, CSR and sales,
- all the data collected through WebCenter is available for workflow automation.

You can also define when the project will synchronize with the workflow job automatically, and if the WebCenter Project Manager can synchronize them manually.

You can also use a workflow connection to save documents (only approved documents or all documents) and the XML metadata about the documents and project to a network folder. This allows you to archive your documents and metadata externally.

#### To Configure a Workflow Connection

1. [Create a connection.](#)
2. [Add that connection in a project template.](#)
3. [Define when the workflow jobs created will be automatically synchronized to the linked WebCenter projects.](#)

### Workflow Connections

Use **Workflow Connections** to synchronise your WebCenter Projects/Documents information with Automation Engine and other third party workflow systems. You can send a JDF file containing information about WebCenter project/document to Automation Engine or other systems. In Automation Engine, this will result in an updated Job or a new Job.

In addition, you can use **Workflow Connections** to submit external workflows. For example, using this connection, the **Submit Workflow** node can execute external workflows on your workflow systems.

You can also use **Push Through Folders** to integrate with such systems. However, these folders copy the WebCenter documents to the specified destination.

When syncing with Automation Engine Jobs, the **Workflow Connections** map:

- Project / Document **attributes** to Automation Engine **Job Setup** parameters including the customer details.
- Documents to Automation Engine job documents.

#### System History Logs

All **Workflow Connections** related events like

- **Workflow Connections created**

- **Workflow Connections deleted** and
- **Workflow Connections** changed

are recorded and stored in System History. Read this page on how to access the [records](#).

### JDF Service

Use **JDF Service** connection to export your projects as JDF files and automatically create jobs in your Automation Engine. In this case, projects and documents will be communicated to Automation Engine using JDF tickets. Also, you can execute a workflow in Automation Engine using this setup.

### ZIP Folder

Enter the address of the network folder to use for archiving your documents and metadata. This must be in an accessible network share, in UNC format.



**Note:** The ZIP file generated will contain:

- `[documentversion_id].[extension]`: the archived document,
- `[documentversion_id].[extension].xml`: the XML file containing the metadata of the archived document,

where `[documentversion_id]` is a unique number corresponding to that version of the document and `[extension]` is the file extension of the original document.

### JMF Service

A **JMF Service** is a service to which the JDF tickets can be posted encapsulated in JMF messages.

#### Setting up a JMF Service:

### JDF Hot Folder

When your WebCenter drops a JDF file into the Hot Folder that is shared between WebCenter and Automation Engine, the Automation engine processes it. When processing is finished, it writes the result into the output folder associated with the JDF Hot Folder.



**Note:** This must be in an accessible network share, in UNC format (for example `\MyWorkflowServer\MyJobContainer\HotFolder`).



**Attention:** The JDF hotfolder does not support the execution of external workflows. The **Submit Workflow** node in WebCenter workflows will fail when a Hot Folder is chosen for the connection.

### Create a Workflow Connection

- Click **Admin > Configuration > Workflow Connections**.

The **Workflow Connections** page appears, listing the workflow connections already created (if any).

- Click **New Workflow Connection**.

- Enter a **Configuration Name**.
- Select your **Connection type**. Here you can choose **JDF Service / Zip Folder** or **both**:

New Workflow Connection

Configuration Name\*


Connection Type

JDF Service(Synchronize Project / External Workflows) ⓘ

ZIP Folder(Synchronize Document + Metadata) ⓘ

Active Configuration


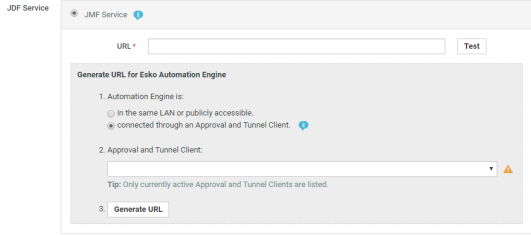

**Create**

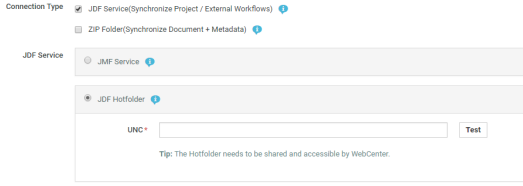
Options	Description
<p><b>To export your projects as JDF files (and automatically create jobs in your workflow system from your projects)...</b></p>	<p>Use <b>JDF Service</b> connection to export your projects as JDF files and automatically create jobs in your Automation Engine. In this case, projects and documents will be communicated to Automation Engine using JDF tickets. Also, you can execute a workflow in Automation Engine using this setup. <a href="#">Read more</a>.</p>
<p><b>To automatically archive your documents and metadata (as a ZIP file) in a network folder...</b></p>	<p>Enter the address of the network folder to use for archiving your documents and metadata. This must be in an accessible network share, in UNC format.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> The ZIP file generated will contain:</p> <ul style="list-style-type: none"> <li>• [documentversion_id].[extension]: the archived document,</li> <li>• [documentversion_id].[extension].xml: the XML file containing the metadata of the archived document,</li> </ul> <p>where [documentversion_id] is a unique number corresponding to that version of the document and [extension] is the file extension of the original document.</p> </div>

- **JDF Service:**

Use **JDF Service** connection to export your projects as JDF files and automatically create jobs in your Automation Engine. In this case, projects and documents will be communicated to Automation Engine using JDF tickets. Also, you can execute a workflow in Automation Engine using this setup.

a)

If your JDF Service is...	Follow this procedure...
<p><b>JMF Service</b></p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> You need JMF Service to connect to Automation Engine if it is not in the same LAN or not publicly available.</p> </div>	<div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;">  </div> <p>You can setup a <b>JMF</b> connection following the steps below:</p> <ol style="list-style-type: none"> <li>1. Select whether your Automation Engine is: <ul style="list-style-type: none"> <li>• in the same LAN or publicly available.</li> <li>• connected through the <b>Approval and Tunnel Client</b>. Read in <a href="#">Configure Workflow Approval and Tunnel Clients</a> on page 449</li> </ul> </li> <li>2. If your Automation Engine connection is: <ul style="list-style-type: none"> <li>• in the same LAN / public, specify either the host address (e.g.: 192.168.1.1.1) or the host name (aeserver.brand.com).</li> <li>• via an <b>Approval and Tunnel Client</b>, select the client from the drop-down.</li> </ul> </li> <li>3. Click <b>Generate URL</b>. The URL field above will be filled in automatically.</li> </ol> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <p><b>Warning:</b> A <b>Workflow Connection</b> connected through an <b>Approval and Tunnel Client</b> will block one concurrent license.</p> </div>
<p><b>JDF HotFolder</b></p>	<p>Select this option if your JDF tickets should be placed in a shared <a href="#">Hot folder</a>.</p> <ol style="list-style-type: none"> <li>1. In the UNC field that appears, enter the address of your workflow's JDF hot folders (in which to place the JDF file).</li> </ol> <p>This must be in an accessible network share, in UNC format (for example \MyWorkflowServer\MyJobContainer\HotFolder).</p>

If your JDF Service is...	Follow this procedure...
	 <p><b>2. Click Test.</b></p>

- Enable the **Active Connection** option to activate this workflow connection.



**Note:**

If you disable this option, there will be no synchronization between WebCenter and your workflow system, but the connection data will be saved, so you can reactivate it later.

- Click **Create**.

### Edit a Workflow Connection

1. On the **Workflow Connections** page, click the name of a workflow connection.
2. Change the workflow connection's *settings* as desired.
3. Click **Save**.

### Delete a Workflow Connection

1. On the **Workflow Connections** page, select the workflow connection(s) to delete.
2. Click **Delete Configuration(s)** in the actions menu.

### Add a Workflow Connection to a Project / Template

Once you have created a workflow connection, you need to add it to project templates that Project Managers will use to create projects. You can also add the connection to individual projects if desired.

1. On the Project Details page of the project or template, go to **Configure > Workflow Connection**.
2. Select **Connect this project to a workflow**.  
This shows extra options.
3. In the **Workflow Connection** list, choose the workflow connection you defined.
4. Select **Allow manual synchronization by the Project Manager** if you want Project Managers to be able to synchronize the workflow job to the project on demand.

If you select this, Project Managers will have an extra action on the Project Details page: **synchronize with workflow**.



**Note:** Whether you enable manual synchronization by Project Managers or not, the workflow job will be automatically synchronized with the project when certain events occur (see [Define When the Project and Workflow Synchronize](#) on page 436).

5. Define when to automatically synchronize the workflow job to the project:



- select **Synchronize on all statuses** to synchronize whenever the project status changes,
- select **Only synchronize on a completed status** to only synchronize when the project has a completed status.



**Note:** There can be more than one completed project status defined in the system.



**Note:** Make sure you have selected **Project status change** as event that will trigger an automatic synchronization (see [Define When the Project and Workflow Synchronize](#) on page 436).

6. Select **Copy documents when synchronizing** if you want the project's documents to be copied to the workflow job.



**Note:** When you are using a workflow connection that automatically archives your documents and metadata in a network folder (see [Create a Workflow Connection](#) on page 431), **Copy documents when synchronizing** is always selected.

You can also choose to copy **Only approved documents**, or **Only documents in (a certain) folder** (select the project folder containing the documents to copy). This will work even you rename the folder later. If you try to delete the folder, you will get a warning.


7. Define **Additional Settings** for the workflow job.

In Automation Engine, you can see these settings in the **Job Setup**. See the Automation Engine documentation for more information.



**Note:**

You can use SmartNames to define those **Additional Settings**.

Click the Insert SmartName  button and select a SmartName in the list that appears next to the button. SmartNames are shown between brackets, like **[Project Name]**.

This list contains general project information (**[Project Name]**, **[Project ID]**, **[Customer Name]**...), and all the attributes defined in WebCenter. The attributes don't need to have been added to the project to be available here.

You can use several SmartNames if desired, or a combination of SmartNames and text, for example **WebCenter\_[Project Name]\_[Customer Name]**.

- a) Fill in the job's **Order ID**. This is mandatory as it allows WebCenter and Automation Engine to identify the job.

We recommend you use the **[AE\_OrderID]** SmartName (corresponding to the WebCenter **AE\_OrderID** attribute created automatically when you created the workflow connection) for the job **Order ID**.

- b) Fill in the job's **Suborder ID** if needed (this is optional).

We recommend you use the **[AE\_SubOrderID]** SmartName (corresponding to the WebCenter **AE\_SubOrderID** attribute created automatically when creating the workflow connection) for this.

- c) If you want to use a Automation Engine job template when creating the job (so that some of the Job Setup information is already defined), define the template to use in **Template Name**.

**Attention:**

If using SmartNames, make sure that they resolve to an existing Automation Engine job name.

SmartNames are resolved when the job is created via the JDF Hot Folder.

8. Click **Save**.

## Define When the Project and Workflow Synchronize

Once you have created a workflow connection and added it to project templates, you need to define what events will trigger an automatic synchronization between the workflow job(s)/network folders and the WebCenter project(s).

You can set this [for your whole WebCenter system](#), but you can also overrule [in specific projects or templates](#).

### System-Wide

1. Go to **Admin > Preferences > Notifications**.

The **Notifications** page has a column called **Synchronize with Workflow**.

2. Select the events that will trigger an automatic synchronization.

This means that when one of the events you selected occurs in a project, and the project is connected to another system, the synchronization will take place.

For example, if you select **Upload new document**, the workflow job created will be synchronized to reflect the project when a user uploads a new document into the project.

3. Click **Save**.

### At the Project/Template Level

1. Go to the project or template's **Notifications** tab.

You can only do this as an Admin user.

2. Select the events that will trigger an automatic synchronization in the **Synchronize with Workflow** column.

When one of the events you selected occurs in a project, and the project is connected to another system, the synchronization will take place.

3. Click **Save**.

## 3.18.6. Configure Asset Management Connections

### Asset Management Connections

You can configure Asset Management Connections to connect to external digital asset management (DAM) system like for example MediaBeacon or another WebCenter system. When you successfully configured a connection, your users can use it as a source for assets. You can also push a new version of an asset (or a new asset) back to the external DAM. This allows you to keep your repositories in an external system.

Once configured, these Asset Management connections can serve as **Document Sources** in WebCenter.

### Configuration

To create a new Asset Management connection,

1. Go to the **Admin > Configure > Asset Management Connections** page.  
If you already have Asset Management Connections, they will be listed in this page. To edit a connection, simply click the name of the connection.
2. Click **New MediaBeacon Connection** or **New WebCenter Connection** or **New ESKO Cloud Connection**.
3. **Name**, a unique name for the connection
4. Specify / edit:
  - **Name**, a unique name for the connection.
  - **URL** and the **API** key for a MediaBeacon connection or **URL**, **User name** and **Password** for a WebCenter connection.  
To create a new **New Esko Cloud Connection**, follow the steps [here](#).
5. After specifying the parameters, click **Test Connection**. Select **Create** to finalise and create the connection.

### Upload from external Asset Management connection

When successfully configured, you can use these connections as custom Document Creation sources. When a DAM is used as a source, the user is able to select documents (with meta data) from a MediaBeacon workspace or a WebCenter Saved Search.

These configurations allow you to push a new version of a document to the asset management system using a workflow node. Specify the Asset Management connection and a mapping between the WebCenter attributes and the meta-data of the external system, the node can be used in a workflow.

You can view the Asset management connection details in the Document information in WebCenter. In the **Document Details > Document Information** tab, view:

- **Asset Management Origin** – The name of the Asset Management Connection used to import the document (+ link).
- **Asset Management Document ID** – The ID of the original document that resides on the external asset management system.

### System History Logs

All connection related events like

- **Asset Management Connection created**
- **Asset Management Connection deleted**
- **Asset Management Connection changed**

are recorded and stored in the [System History](#) on page 456.

### Esko Cloud

Esko Cloud is a cloud server environment in which all Esko's cloud applications are deployed. Dedicated services are made available which provides functionality to other applications like e.g. WebCenter.

To connect to the cloud, the (service)URL needs to be provided together with the cloud token. The token is used to authenticate the person/system that makes the request.

In WebCenter context, you can connect to cloud for:

- Color
- Archiving of documents
- Packshots
- Open ID Connect



**Note:** To know more about creating an Esko cloud account read [here](#).

For the Color specific functionality, WebCenter connects to the Color service. The cloud stores colors/inks and color/ink books. We refer to these as Colors and Color Books. The colors and color books can be uploaded to the cloud by the Color Pilot. WebCenter can read the colors and color books by connecting to the Color Microservice.

### Create an Esko Cloud Account

To be able to connect to the Esko Cloud, an account has to exist in the Esko Cloud. Most organizations may require only one Esko Cloud Account, however multiple Esko Cloud accounts can be maintained for independent environments for segregation of data.

Follow the steps below to create an account with Esko Cloud.

1. An Esko id is required to create an Esko Cloud account which is provided for every customer.
2. Create an Esko Cloud account in this URL <https://approve.next.dev.cloudi.city/createNewAccount.html>.
3. Cloud Account name can be given as required and the Cloud account number is auto generated.



**Note:** Creating a site within a Cloud account is optional for Color and Archiving services.

4. Once the Esko Cloud account is created you are directed to the **My Network** page.  
Select **Add Equipment Network** option to create Equipment in the **My Network** Page.
5. Click on the **Equipment** folder and select **Add Equipment**. Select WebCenter as the **Equipment Type** and add an **Equipment Name**. An **Equipment ID** is generated.

The Equipment ID in the Cloud account is required to enable a connection to either the Color Service or the Archiving service from WebCenter.

### Configure Esko Cloud Connection in WebCenter

An Administrator user can set up the connection to the ESKO Cloud. A Cloud Connection can be set up for a connection to Archiving, Packshot creation, Color or Open ID Connect services. Navigate to Admin > Configuration > **Asset Management Connections** and select **New ESKO Cloud Connection**.

Follow the steps below to configure the ESKO Cloud Connection in WebCenter.

1. Select **New ESKO Cloud Connection** to open the connection Details page.
2. Enter the **Name** of the Connection.
3. Enter the **URL** of the Connection.
4. Enter the **Cloud Token**.
5. Choose the **Cloud Service**, **Archiving**, **Color**, **Packshots** or **OpenID Connect**. Depending on the selected Cloud Service, the following extra configuration is required and mentioned [here](#).

6. Enter the **Repository ID** and **Equipment**. This is a mandatory field to be entered for Archiving and Packshots options only. Repository ID will contain the ESKO Cloud repository and the Equipment holds the name of the equipment *created in the Esko Cloud*.
7. You can test the connection by clicking **Test Connection** before you click **Create**.

### Configure Color in Esko Cloud

A connection to the Esko cloud account can be established by the WebCenter Administrator user via Admin > Configuration > **Asset Management Connections**.

Setting up a connection to the Esko Cloud with a Cloud Service for **Color** is the first step in the Cloud Trace Solution.

Enter connection details like the name, URL and Cloud token for the Esko Color Cloud connection. Select Color as **Cloud Service** and additional fields will appear.

- **Deployment Package: Import Assets** while setting up the Color Trace solution for the first time. These assets are part of the Deployment Package. Read more about it [here](#).
- **Color Information: Import Color Books** into WebCenter for the first time when setting up the Color service. There is also an option to **Force Update Color Books** based on the requirements to update the colors.
- **Automatically Update Color Books every day**: Select this option to update your Color books daily.
- **Details**: Expand to view the color books available at any point along with the last updated time. Also information on the number of color books and colors processed during the last update including the details of the number of color books that were updated or skipped or failed or obsolete is shown.
- **Connection Status**: Displays the status of the connection as **Connected** or **Not Connected**. Before connecting for the first time, you can check whether all information provided is correct by clicking **Test Connection**.
  - **Connected**: When the Cloud Service can be reached, and the validation of the token was successful.
  - **Connection Failed**: When the import was not completed or the token could not be validated.
- Select **Create** to save the information provided and create a new Color Service Esko Cloud connection.

### Deployment Package

While setting up the Esko Cloud connection for Color service, the required WebCenter assets are imported as Deployment package. This is installed once initially using **Import Assets** option to setup the Color Trace solution in WebCenter and later these assets can be updated whenever required using **Check for Updates** option.



**Note:** Subsequent Color Service setups does not require Deployment Package to be downloaded but only updated if required.

Deployment Package comprises of WebCenter Projects and and Templates, Dashboards, Saved Searches, Categories, Restricted Sets, Groups and Roles.

Deployment Package

Info: Required assets are missing. It is strongly advised to import the Deployment Package.

Color Information

Tip: Only use 'Force Update Color Books' in case the Color Library is corrupted.

Automatically update Color Books every day

1. **Project and Templates:** Projects that are required to setup the Color Trace solution in WebCenter are
  - **#COLOR TEMPLATE :** Template project where utility documents are placed. It also can configure the landing page for the “**#COLOR LIBRARY**” project. This contains the following documents
    1. **#COLOR TEMPLATE:** Template document for creating a new color document. Any document
    2. **#COLOR THUMBNAIL:** Document used to create the color document thumbnail (SVG)
    3. **#COLOR CONDITIONS.xls :** Excel sheet containing valid values for the condition parameters (For example: printing technique, substrate, ink type and finishing)
    4. **#COLOR ColorCertJob.ccj:** Document that carries the category #COLOR ColorCertJob
  - **#COLOR LIBRARY:** Project where the documents representing colors are created. In this project, each folder represents a color book and each document is a colors in the books. Meta-data information of the color is added to the document attributes
  - **#COLOR PALETTES:** Project that serves as library for the palettes
  - **#COLOR PALETTES TEMPLATE:** Template for #ColorPalette Projects
  - **#COLOR COLORCERT RULES LIBRARY:** Library for the Color Cert Rules documents
  - **#COLOR COLORCERT RULES TEMPLATE:** Template for #Color Cert Rules library
  - **#COLOR ColorCertJob:** Attribute Category to hold attribute values for the ColorCert Job
  - **#Color PROFILES**
2. **Categories** Attribute categories for representing Color Palette or the Color or the conditions for printing .
3. **Groups and Roles :**For Admins for various purposes and others Users.
4. **Restricted Sets:** Consists of two restricted sets for Master/Dependent color and Color status
5. **Saved Searches:**Are available to access the color information as and when required.
6. **Dashboards:** To view the metrics of Colors, color books, Palettes, Rules profiles that are available.

### 3.18.7. Configure Structured Content

To configure a setup for Structured Content, Admin Users can navigate to **Admin > Configuration > Structured Content Configuration**

Usage of the Structured Content in WebCenter relies on some preexisting Attribute category, Attributes, Saved Searches, etc which are set up when the deployment setup is imported. You can configure different configurations for the Structured Content setup in this page.

## Search

- **Saved Search for Reusing Documents:** select the Saved Search that will be used in the editor when re-using content, e.g. a topic or a map.
- **Saved Search for New Documents:** select the Saved Search (list of document templates ) that will be used when adding a topic or map in the editor.
- **Saved Search for Graphics:** select the Saved Search (list of graphic documents) that will be used when adding an image in the editor. This option comes up when the user clicks the **Figure with image** or **Inline image** options within the editor
- **Saved Search for Text Statements:** select the Saved Search that will be used when inserting a Text Statement in the editor. This option comes up when the user clicks Insert Content > Existing Content > Statement from the Structure menu within the editor.
- **Saved Search for Segments:** select the [Saved Search](#) that will be used when inserting a Segment in the editor. This option comes up when the user clicks Existing Content > Statement from the Inline menu within the editor.
- **Saved Search for DITA Conrefs:** select the Saved Search that will be used when inserting DITA conrefs in the editor.

- **Dashboards**

When a document is opened in the editor, a side panel shows the information about the document. This side panel has an upper part which shows information about the root document which is opened and a lower part shows information of the document that is referenced from another document.

- **Root Document:** Select the dashboard that will be used in the editor's side panel (upper part) when opening a document. Information about the document which is opened in the editor is displayed.
- **Focus Document:** Select the dashboard that will be used in the editor's side panel (lower part) when selecting a section in the editor which is loaded from another document.
- **Allow users to resolve comments on documents in Review mode of the Structured Content Editor:** When this checkbox is enabled Reviewers will be able to resolve comments in Review mode. When this checkbox is disabled Reviewers will not be able to resolve comments in Review mode.
- **Elevate Permissions for Content Owners performing Inline Edits:** Select this option if you want topic owners to be able to edit their topics in different contexts where they would otherwise not have the rights to do so:
  - in the context of a map they don't have change properties or edit rights to (so that the map is updated with a link to their newer topic version).
  - when making a local copy of the topic and its parent map(s).
  - when creating a variant of the topic and its parent map(s).

When a user edits a topic using this change of permissions, this is logged in the Project History. This will update the links to these topics in that context (for example in the map) to point to the new version edited by the topic owner.



**Note:** When no dashboard is configured, it will not be visible in the editor. If only one dashboard is configured it will take up the full height of the side panel.

**Deployment package**

If all required assets are installed a message is displayed indicating that the assets are available. If this is not the case, a message is displayed indicating that required attributes are missing. Click **Check for Updates** to import all required assets. You are redirected to the **Import Dependencies** page, which lists all the required assets for structured content. You can choose not to update by not selecting the respective checkbox.

**3.18.8. Configure Packaging Content Management**



**Note:** User needs the Packaging Content Management license to be able to use this module.



**Note:** Users with **Admin** credentials, can configure Packaging Content Management.

Navigate, **Configuration > PCM Deployment & Configuration**

**Packaging Content Management** page displays following three sections:

- **Configuration**
- **Global Permissions**
- **Local Permissions**

**Configuration**

When user selects **Configuration**, following fields are available:

- **Permissions** field is used to select the permission model to be followed by Text/Table Content documents, there are three options:
  - **Only use local permissions**

Selecting this option allows content documents to only use **Local Permissions**, that are defined in the text content document under **Permission** tab.
  - **Only use global permissions**

Selecting this option will allow only content documents to use **Global Permissions**, under **Permission** tab, that are defined in the system.
  - **Allow both global and local permissions**

Selecting this option will allow content documents to use either **Global Permissions** or **Local Permissions** depending on the setting in an individual Content document.

**Global Permissions** will be selected by default, but the admin user can switch from **Global Permissions** to **Local Permissions** in the permission tab of a document by clicking **Manage Permissions** and selecting the **Use Local Permission** option.
- **Revision Raise** contains two options as:
  - **Never raise revision**

Select this if you do not wish to save master text changes as a new Revision.
  - **Raise Revision when Master Text is updated**

Select this to allow raising a revision, when master text is updated.
- **When Copying a Content Document** contains three options as:



- **Keep Comments**

User can choose this option to copy all the comments.

- **Remove comments if state reverted to Draft**

Comments are cleared if the state of the element is changed to draft, when the option is chosen.

- **Remove Comments always**

Select this option for clearing all the comments in the elements, while copying.



**Note:** Same behavior is replicated in workflow when documents are copied using Copy/ Move Document. Move document option does not respect this setting.

- **Auto Addition of Languages**

Select whether or not you want to automatically [add missing languages](#) to documents in the document table.

- **Translation Service API Key**

Enter the Translation Service API key that is required by the Translation Tool. This key will be used during [auto-translation](#) in the Documents Table.

- **Deployment package**

You can click **Check for Update** to import all the required assets for the Packaging Content Management. Before importing, verify that you have the ListManager project available on the server.

The Import Dependencies page lists all the required assets for packaging content management. You can choose to not update by unchecking the respective box. Verify if the ListManager Project is present in the Projects and Templates section of the page. If the ListManager Project is listed among the items that are already on the server, then uncheck the ListManager checkbox. If the project is listed among the items that will be imported, stop the import and make sure the project is available on the server.

### Local Permissions

#### Smart Role Names for Editors and Approvers

To work with language specific [Smart Role Naming](#) on page 527 specify your:

- **Language Editor Role Prefix/Suffix**
- **Language Approver Role Prefix/Suffix**
- **Add Language Role Prefix/Suffix**

The specified prefixes and suffixes are used automatically to create **Role names** specific for each language in the Role Mapping > Manage Permissions page.

If the **Roles** column in **Manage Permissions** is left blank, the values in the **Language Editor Role Prefix**, **Language Editor Role Suffix**, **Language Approver Role Prefix**, **Language Approver Role Suffix**, **Add Language Role Prefix**, and **Add Language Role Suffix** are used to calculate the role names for the Editor, Approver Text Content, and Add Language permissions.



**Note:** This setting is independent of the **Allow raising Document Revision when uploading a new Document Version** setting.

### 3.18.9. Assisted QA

WebCenter Viewer now allows integration with third party external web QA (quality assurance) tools namely **InformalT** and **TVT** for additional comparison features. You can configure a connection between the Comparison tool with WebCenter by navigation to **Admin > Configuration > Assisted QA**.

When the graphic documents ( PDF's and Adobe Illustrator documents ) are compared in WebCenter Viewer, additional buttons are enabled if any external QA tools are connected. Once the comparison session in the external tool is completed, reports and annotations are stored back into the WebCenter. You can read about how to configure an external tool [here](#).

You can read more about how it renders in the viewer [here](#) in the User documentation.

#### Navigation From other Menu locations

You can configure QA tools as Custom Action Buttons in the Menu Builder to make it available other than the Viewer. This can be added to all pages(locations) where the list of Documents are shown.

#### System History Logs

All Assisted QA Tool connection related events like

- **Assisted QA Tool Created**
- **Assisted QA Tool Deleted**
- **Assisted QA Tool Changed**

are recorded and stored in System History. Read this page on how to access the records [System History](#) on page 456

### Configuring Assisted QA

As an Admin user, you can navigate to the configuring page from **Configuration > Assisted QA Tools > New QA Tool**. Depending on the QA Tool to be added, the configuration options may vary. Currently options are available to add InformalT and TVT.

Navigate to **Configuration > Assisted QA Tools** page to add a new QA tool or edit the details of already configured connection.

The parameters required for connection are:

1. **Name:** An unique name for the connection.
2. **Provider:** Choose the QA Tool that you want to connect to.
3. **URL:** URL to the QA Tool to be added
4. Provider specific information:
  - a. **InformalT:**
    - **User Group** Add the User group in the InformalT. By default, the "CC Users" is given
    - **Compare Type:** Choose the type of compare you wish to use the connection for, either Text or Graphic or Hard Copy.
    - **Configuration ID:** Enter the corresponding configured id in InformalT

**b. TVT**

- **User Name**
- **Password**
- **Options** : Choose from a set of options (type of document) defined and available in dropdown.
  - **Create Audit Trail Report**: Select this check box for a second report to be saved to WebCenter
  - **Open TVT locally** : Select this check box to open TVT on the application installed on the local machine instead of a new tab

**5. Report Location:** Location to upload the external pdf report from the selected QA Tool after comparing the documents

- **Project Root Folder:** Root folder of the project where the document resides
- **Folder of Current Document:** Same folder as the original document
- **Custom Folder** Choose the folder where you want the report from the QA tool to be saved. Specify the location in the **Target Folder** field.
- You can add a suffix for the report name in the **Report Name Suffix** field for the external report which is imported.

You can now **Test Connection** and then **Create** the connection. There is also an option to **Delete** this connection in the **Assited QA** Tools page.

### 3.18.10. Configure Push-Through Configurations for Workflow Folders

#### About Workflow Folders

##### What is a workflow folder?

When creating a folder the Project Manager can define it as a **workflow folder**, using a push-through configuration defined by the Admin.

Any file that is uploaded into this folder will be automatically copied to a location defined in the configuration. For this reason, workflow folders are sometimes also referred to as “push-through folders”.

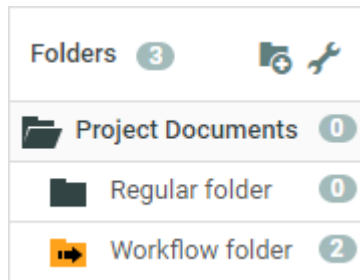
Workflow folders are particularly useful when that other location is a hot folder of a workflow system such as Automation Engine, so that the file will automatically be processed by the workflow system.



**Note:** The Configuration for workflow folders needs to be defined by an Administrator. Project Managers can then select one of the defined configurations when they create a new folder.

##### Recognizing workflow folders

Workflow folders have a yellow icon with an arrow on it.



The files in a workflow folder have two extra icons:

- The first shows whether the copy of the file was successful or not.
- The second is a button to copy the file again to the location defined in the configuration.

### System History Logs

All Push Thorough Configuration related events like

- **Push Through Configuration created**
- **Push Through Configuration deleted** and
- **Push Through Configuration changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### Delete Push-Through Configurations

1. Click **Admin > Configuration > Push Through Configurations**.
2. Select the configuration you want to delete.
3. Click **Delete Configuration** in the actions menu.
4. Click **OK** to confirm.

## 3.18.11. Configure File Storage

The System Administrator (ADMIN) can configure the storage location for different kinds of files allowing for better management of the file repository.

### Location Mapping

In this tab, the system administrator can define the storage location for a specific file type.

- **Document Data** extra exceptions can be made to store files of a specific document type on a custom storage location.

When the storage locations are configured and saved any file that is being uploaded to or created by WebCenter is stored in the new location. The initial values for these configurations are set based on the AppConfig.xml file.

### Storage Locations

In this tab, the system admin can do one of the following actions:

- **Change Temporary Storage Location**

During normal operation of WebCenter, the application uses the location defined in the “**Location for temporary files**” to create temporary files. To improve the file handling performance, it is advised to point to fast NTFS Storage (e.g. SSD)

- **Change JDF Hotfolder Location**

A dedicated NTFS location has to be specified in order to make WebCenter < > OBGE data transfer possible (for processing View file generation tasks). This location has to be accessible both to WebCenter and OBGE.

- **Adding Storage Locations**

The system administrator can define new Storage Locations by clicking the Add button. When adding a new Storage Location, it is required to specify the type of the Storage Location. Currently NTFS and S3 storage are supported. Depending on the selected type, different fields become mandatory.

S3 storage location: Since WebCenter 22.07 the default AWS Credential Provider chain is also supported. For more information, check the AWS documentation.



**Note:**

- When **Only allowed read operations** is selected, users can only view and download data.
- A non-active storage location can be marked as read only.

- **Edit a Storage Location**

The system administrator can edit existing Storage Locations but the data that can be edited is limited.

It is not possible to change the type and the actual location of the Storage Location in order to prevent data loss.

- **Remove a Storage Location**

The system administrator can remove Storage Locations that are both inactive and empty. Only if a Storage Location matches both criteria, the delete option is visible.

- **Migrate a Storage Location** to the current Storage Location

The system administrator can migrate data from an existing Storage Location to the currently active Storage Location set in the **Location Mapping** tab. In order to do so, select the Storage Location(s) that need(s) to be migrated and click **Migrate Files**.

The migration will go over all the files in the selected Storage Location, determine the type of the file and place it in the currently active Storage Location defined for that type of file.



**Note:** WebCenter takes special care to ensure that this migration can happen while WebCenter is working as normal, so no downtime is required.

- **Show locations for unmanaged documents**

The old Storage Locations can be accessed by clicking the **Show locations for unmanaged documents** link. This overview only shows the locations that are still being read from the AppConfig.xml file.



**Note:** The Storage Locations prefixed with Default indicate the values as they were set prior to **WebCenter 21.07**. If WebCenter 21.07 is the first WebCenter version you are using, then these locations will not contain any files.

**Migration Status**

This tab provides an overview of all ongoing migrations. Here you can either pause, resume or cancel a migration.

After a successful migration, the files in the original location are cleaned up automatically one hour after the migration finished. In case you want to clean up immediately after having migrated the files, you can click the Cleanup button.

When an error occurred during a migration, a message will be displayed in this tab.



**Note:** For migrations that ended with an error, the files in the original location are not cleaned up automatically. They are removed if you click **Cleanup**.

**View File Cache Size**

This cache location can only be used if the View Files location (in Storage Configuration) is set to a non-NTFS location (e.g. S3).

When that is the case, the view files have to be dynamically pulled into the cache location when viewing a document in WebCenter.

The Cache Size input field allows the administrator to configure the maximum size of the cache.



**Warning:** The cache could take up more space on disk than configured in the Cache Size field because of the following two reasons:

- The cache evicts items only after adding them, this means that for a brief period the cache will exceed it's maximum size when the new item is added and before the previous item is deleted from disk.
- Ghost files: in some situations it can happen that the deletion of the file from the cache location fails (e.g. an external process has a lock on the file). In this situation the cache will no longer include the size of that file in its max size calculation. This can typically be solved by force clearing the cache.

Because of these reasons it is recommended to make sure that the disk to which the cache points is at least ~20% larger then the configured Cache Size.

**Specify Cache:**

View files persisted on a non-NTFS storage location must be accessed from an NTFS location by the Graphical Viewer to maintain the expected viewing behavior. For this reason, a dedicated NTFS-only "View File cache" location is used.

The View File cache location can be specified by an Administrator by navigating to **Admin > Configuration > File Storage Configuration > Storage Locations** tab.

Like the "Location for temporary files" the **View File cache location** is a special setting that consists of two properties:

- NTFS location: an NTFS based location accessible by the WebCenter Application server; default value is the "Default View File location" path appended with an extra "cache" subfolder.
- Maximum Cache Size: specifies how much disk size can be used for View File cache purposes (if putting more View Files into the cache would result in this size being exceeded, the least used View Files in the cache that add up to the amount of size over the cache size limit are removed from the cache to accommodate the incoming view files); the value is stored in GB units; default value is 10.

**Clear Cache:**

A button to clear the View File cache is available on the same location. When clicking the Clear Cache button, the Administrator is presented with two options:

- **Clear Cache:** simply tries to clear out the cache by trying to delete the files ones. If the file is still being used by the View Server, it will not be possible to delete the file thus the file will not be removed from disk. These files are referred to as "ghost files".
- **Force Clear Cache:** a more aggressive way of clearing out the cache. In this mode the View Server will first be terminated, then the cache will be cleared and then the view server will be started again. Using this option will affect other users that are trying to view documents during the period that the cache is being cleared.

### 3.18.12. Configure Workflow Approval and Tunnel Clients

When WebCenter and Automation Engine are not on the same LAN, this **workflow approval and tunnel client** will establish a bi-directional communication.



**Note:** The Automation Engine Pilot needs to have the **workflow approval client** credentials to send messages to WebCenter.

This is configured through **Admin > Configuration > Workflow Approval Clients** in WebCenter, and, in the case of Automation Engine, in **Tools > Configuration > Web Sites** in the Automation Engine Pilot.



**Attention:**

Configure the WebCenter account first so that it can be tested from within the workflow approval server.

WebCenter and the workflow approval server must use the same user name and password!

This is completely separate from a normal WebCenter user. Workflow approval clients may not log in to WebCenter.

Two manual configuration steps must also be performed outside of WebCenter to ensure proper communication between the workflow approval client and WebCenter systems that are not on the same LAN.

#### System History Logs

All **Workflow Approval and Tunnel Client** related events like

- **Workflow Approval and Tunnel Client created**
- **Workflow Approval and Tunnel Client deleted** and
- **Workflow Approval and Tunnel Client** changed

are recorded and stored in System History. Read this page on how to access the [records](#).

#### Create a Push-Through Configuration

1. Click **Admin > Configuration > Push-Through Configurations**.

The **Push Through Configurations** page appears, listing the push through configurations already created (if any).

2. Click **New Push Through Configuration** to add a new configuration.
3. Enter a **Configuration Name**.

4. In the **Destination UNC** field, type the path to the target folder in UNC format (for example `\MyWorkflowServer\Container_Data\WebCenter`).
5. Choose a **File Naming** option:
  - **Document name**: documents copied to the destination folder will keep their original WebCenter name.
  - **[Project\_name]\_[Document\_name]**: the copied documents will get a file name consisting of the project name, an underscore and the original document name.
  - **[Customer\_name]\_[Project\_name]\_[Document\_name]**: the copied documents will get a file name consisting of the Customer name, an underscore, the project name, another underscore and finally the original document name.
6. Choose the **Workflow Type** to enable additional integration functionality: Automation Engine
7. Enable the **Active Configuration** option to activate the push-through mechanism for this configuration.
 

If you disable this option, files will no longer be copied, but the configuration data will be saved, so you can reactivate it later.
8. Click **Create**.

### Create a Workflow Approval and Tunnel Client

1. Click **Admin > Configuration > Workflow Approval and Tunnel Clients**.
2. Click **New Workflow Approval and Tunnel Client**.
3. Enter the **User Name** and **Password** for the workflow approval client user.
4. Click **Create**.



**Note:** If you have several Automation Engine sites communicating with WebCenter, you need to create a separate Workflow Approval Client for each site.

### Change the Password for a Workflow Approval and Tunnel Client

1. Click **Admin > Configuration > Workflow Approval Clients**.
2. Click **Change Password** link next to the name of the client user.
3. Change the password and click **Change**.

### Delete a Workflow Approval and Tunnel Client

1. Click **Admin > Configuration > Workflow Approval Clients**.
2. Select the client.
3. Click **Delete Client(s)** in the actions menu.
4. Click **OK** to confirm.

### Configure the Workflow Approval and Tunnel Client Software

Configure the access to WebCenter in the client application for your workflow server.



For instructions, please consult the documentation of your workflow server (Automation Engine).

### 3.18.13. Upload Saved Search Results Template

You can upload an Excel file (.xls) to be used as template when users [download search results to Excel files](#).



**Note:** This will only be used when downloading the results of **global saved searches** (you can upload one template per global saved search).

1. Go to **Admin > Configuration > Upload Saved Search Results Template**.
2. **Browse** to the Excel file to use as a template for a saved search.



**Note:** Name it exactly as the saved search you want to use it for (ignoring the extension)!

3. If you want to update an existing template file (uploaded with the same name), select **Overwrite if template file already exists**.
4. Click **Upload**.

When downloading search results using that template, you will find the results data in a sheet called "Search Results".



**Note:**

You can upload a template containing charts and additional sheets referencing the main "Search Results" data sheet (for example through Pivot tables).

In this case, remember to put referencing elements to "auto-update on open" to update the sheet automatically when the Excel document is opened.

#### System History Logs

All changes/events in this page are recorded and stored in the System History page for Administrator users. Read this page on how to access the [records](#).

### 3.18.14. View System Information

The System Info page lists various system statistics. Click **Admin > Configuration > System Info** to view the system statistics and properties.

System Info

WebCenter usage info

Number of Projects 113342

Number of Documents per type

Graphics 21354

Digital Film 53

Cape 256

CHILI Package 599

Other 34012

Text Content 126

ArtiosCAD 9110

Page List 208

Collada 1681

User management info

Number of licences 45

Number of Users 11812

Number of guaranteed access Users 13

### 3.18.15. Troubleshooting Tool

If you experience some problems with WebCenter, or if you want some real-time information on your WebCenter system, you can run the **Troubleshooting Tool**. To do this, you can either:

- Go to **Admin > Configuration > Troubleshooting Tool** in the WebCenter user interface.
- Go to `http(s)://<server>/<instance>/tstools/index.html` in your web browser.



**Note:**

- You can run the tool from this web page even if your WebCenter server is not running (some tests will fail if WebCenter is not running).
- When running this tool as a non-Admin user, you can only execute simple tests (advanced tests require Admin access).
- You can execute all troubleshooting tests from localhost without the need to log in as an administrator. This can be done by accessing the Web Server machine and navigating to: <http://localhost:8081/<instance>/tstools/index.html>.

The tool starts automatically. For each test, the tool gives a status and some extra information. You can use this information to troubleshoot your WebCenter installation and, if you cannot solve the problem, to call Esko customer support.

Test status	Meaning
<b>OK</b>	The test was executed and everything works as expected.
<b>BAD</b>	The test was executed, it could be working, but something requires attention.
<b>FAILED</b>	The test failed. It is very likely that there is something wrong with the system.
<b>SKIPPED</b>	The test wasn't executed due to a lack of rights (you didn't log in as an Admin user) or because a previous (related) test failed.

### Workflow Troubleshooting

If you run the test on the [Workflow Engine](#) at the [Troubleshooting Tools](#) page, it will result in :

- **OK** if the Workflow Engine is running
- **Bad** if the Workflow Engine is still starting up
- **Failed** if the Workflow Engine is not running.

You can also see the Workflow Database states such as :

- The total number of running workflows in the Workflow Engine
- The total number of tokens in these workflows
- The total number of triggers in these workflows
- The total number of wait triggers in these workflows

When you have a problem workflow, click on the **Details** section to know more about the specific **tasks** and **projects** creating issues. You will also see a tip describing how to resolve the problem.

Read <https://wiki.esko.com/pages/viewpage.action?pageId=170037353>.

### 3.18.16. Workflow Engine

Use the WebCenter Workflow Engine page when the workflows get stuck, fail to complete or when a workflow loops cause the system to crash. This is a convenient way to troubleshoot workflows.



**Note:** Since version 14, this component runs as a background process of JBoss running the workflows in WebCenter. For versions before WebCenter 14, the Workflow Engine runs along with the JBoss. Because of this, you have to restart the JBoss to restart the Workflow Engine.

To see the status of the Workflow Engine, go to **Admin > Configuration > Workflow Engine**.

- **Started** when the Workflow Engine is running (green)
- **Starting** when the Workflow Engine is still starting up (orange)
- **Stopped** when the Workflow Engine is not running (red)

To change the status, use the following controls:

- **Restart**
- **Start**
- **Stop**

This page also displays the data on:

- **The total number of running workflows in the Workflow Engine**
- **The total number of tokens in these workflows**
- **The total number of triggers in these workflows**
- **The total number of wait triggers in these workflows**
- **The number of workflow events per second:** This is the average number of Workflow Events per second generated by the Workflow Engine within the past 20 seconds.
- The Workflow Engine queues (**Queue Name**) and their **sizes**:
  - **Internal Event Processing Queue**
  - **Total items in Workflow Step Processing Queue**
  - **Low Priority Items in Workflow Step Processing Queue**
  - **Normal Priority Items in Workflow Step Processing Queue**
  - **High Priority Items in Workflow Step Processing Queue**
  - **Trigger Processing Queue**



**Note:** The low, normal, high workflow step processing queue counts are only shown if there have been steps executed from workflows with this type of priority since starting the Workflow Engine.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

## 3.18.17. Cleanup Tool

When objects are deleted, they remain in the database marked as "Deleted". To permanently clear this data, an off-line tool is used which can be scheduled for a time when the server load is low.

The Clean Up tool has to be run by System Administrator with operating system access to the WebCenter Application server. To run the tool at regular intervals, the Windows Task Scheduler can be used.

### Running the Cleanup tool

- On the WebCenter Application Server operating system, navigate to `<WebCenter_install_directory> \ApplicationServer\Cleanup`.

- Execute the batch script 'cleanup.bat' (either by double clicking or executing in a command prompt). This will connect to WebCenter and instruct it to scan through the database and purge obsolete records.

The clean-up tool produces progress feedback in the displayed command prompt and also stores it in the log file. To view the log, go to:

- `<WebCenter_install_directory> \ApplicationServer\Cleanup\logs  
\cleanup.log`

### Inspecting Cleanup Tool Status from browser

You (Admin) can view the status in the **Admin > Configuration > Cleanup Tool** page. The following states are possible:

- **Running.** You can stop the tool by clicking the **Stop** button. You will be asked to confirm your stop action.
- **Stopping** – a stop request was submitted to the server, but the cleanup tool is not yet stopped. In this state, you cannot execute any action.
- **Stopped**

If the status is **Stopped**, you will be able to:

1. Specify the **Minimal age of items to clean** (in hours). The default is 0 hours.
2. Start the cleanup tool by clicking the **Start** button. If you **Start** the process, you will be asked to confirm your start action. As soon as the cleanup tool starts up, the status will change to **Running**.

### Altering Profile Defaults

You can prevent Stopping or Starting the Cleanup tool from browser.

- To prevent Stopping the Cleanup tool from browser, change the `ProfileDefaults` record `WC_CLEANUP_ENABLE_STOPPING` to "0" by either of the following methods:
  - Use the URL:  
`<WebCenterInstance>/siteconfig.jsp?key= WC_CLEANUP_ENABLE_STOPPING &value=0`
  - or directly by a SQL script.
- To prevent Starting the cleanup tool from the browser, set the `ProfileDefaults` record `WC_CLEANUP_ENABLE_STARTING` to 0. You can use either of the following:
  - Use the URL:  
`<WebCenterInstance>/siteconfig.jsp?key= WC_CLEANUP_ENABLE_STARTING &value=0`
  - or directly by a SQL script.



#### Note:

Once set, the value can no longer be changed from the `siteconfig.jsp`, but only altered in the database directly. This allows efficiently blocking these features from being executed from the browser.

### System History Logs

All changes/events in this page are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

### 3.18.18. Site Service

#### View Log Files

Go to **Admin > Configuration > Site Service** to:

- see system settings (click **Show Site Defaults**),
- set the maximum number of days to retain log files:

You can specify the **Max Age of JBoss Log Files** field as the number of **days** you want to retain the logs.



**Important:** If you set a very high number of days, it will affect your hard drive disk space over time. You have to watch the disk space and delete the log files manually.

- download **JBoss** and **Tomcat** log files.

### 3.18.19. System History

WebCenter system configuration changes can be viewed in one location by Administrators. Navigate to **Admin > Configuration > System History** and view the following information:

- Event Date
- Type of the event
- User who made the change
- Comment (system generated )
- Change comment (provided by the user)

The events can be filtered and viewed based on the date, the operator or the delegate or the event type.

You can choose to view all the events or can specifically choose the events in which you are interested. By default, the first 200 records matching the filter and sorting option are shown, however, this can be increased or decreased, and it is possible to print the results matching the filter.

Events are tracked in the following pages in WebCenter

All Events	
▶ Asset Management Connection Events	
▶ Assisted QA Tool Events	
▶ Attribute Category Events	
▶ Attribute Events	
▶ Characteristic Events	
▶ Company Events	
▶ Dashboard Events	
▶ External API Connection Events	
▶ External Web Connection Events	
▶ File Storage Configuration Events	
▶ Generic Configuration Events	
▶ Global Saved Search Events	
▶ JavaScript Rule Action Events	
▶ Location Events	
▶ Menu Events	
▶ My Work Section Events	
▶ Project Events	
▶ Project Status Events	
▶ Push Through Configuration Events	
▶ Report Events	
▶ Restricted Set Events	
▶ SSO Instance Events	
▶ Specification Events	
▶ Task Status Events	
▶ Task Type Events	
▶ Workflow Approval and Tunnel Client Events	
▶ Workflow Connection Events	

Each of the page has different set of events captured and stored in history based on the nature of the event.

### 3.18.20. Authentication

Single Sign-on allows you to use a centralized system for authentication. For instance, you can use a single credential on many systems including WebCenter.

You can configure:

- a single set of credentials for all systems (like LDAP)
- free access to WebCenter without a separate login page.


The two previously existing authentication mechanisms ([LDAP](#) and simple password authentication) have been modified adding extra flexibility. You can either make all users authenticate with LDAP by default or configure multiple LDAP servers.



**Note:**

You need a WebCenter Advanced License to configure more than a simple password authentication and one LDAP server.

**Table: Single Sign On Definitions**

Single Sign-On System	The system providing authentication, (e.g. yammer, SAML, LDAP)
System Administrator	The administrator who deals with WebCenter from both an application point view and from an IT (operating system and database) point of view.
Administrator	WebCenter Administrator
SSO plug-in (SSOP)	The full deployment of an integration with a Single Sign-On system. Will also be used as synonym for the implementation of the Java 'ServiceProvider' concept. The Service Provider is in fact part of the deployment of the plug-in.
Single Sign-On Instance configuration	Defines an Instance and its place (priority and availability) in the system.
Plug-in specific Instance configuration	Part of the instance configuration that may differ depending on the plug-in.
Single Sign-On Instance	A plug-in can have multiple instances. Its behavior is determined by the plug-in and the instance configuration.
User Configuration	Configuration information for a specific user
Instance Specific User Configuration	The user configuration dependent on the SSO instance.  <b>Note:</b> This configuration is dependent on the instance and not the plug-in.
Standard Login Page Instance	The standard login page.
Custom Login Behavior Instance	The alternate page (or dialog) when a user is not authenticated.
Default Single Sign - On Instance	The instance that will be selected by default.
User	Has access to WebCenter after login.



Database	Relational database. The primary location for persisting data in WebCenter.
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### Add a plug-in to the system

You can add plug-ins that are not WebCenter standard by placing a set of .jar files in <installation\_root>/ApplicationServer/JBoss/sso-plugins folder.

These files contain the plug-in implementation and the associated libraries. To remove a plug-in, you have to stop the application server. Restart the application server after replacing the .jar files.



**Note:**

1. You do not have to restart any of the WebCenter servers after installing a new plug-in.
2. When an Application Server is being updated, any existing SAML plugin version that might have been there already when updating is replaced with the latest version provided by the WebCenter installer.

### Add a Single Sign-On Instance

1. From the **Configuration > Authentication (SSO)** page, click on the **New SSO Instance** link.



**Note:** You cannot have more than one **basic** authentication.

2. Give the new Instance a **Name**.
3. Select the **Plug-in** from the drop down.  
The **Plug-in** drop down will display all the SSO Plug-ins available in that particular WebCenter.
4. Click **Create**.

When the instance is created successfully, you will return to the **Single Sign-On Instances** list. The new instance is also displayed as the last instance.

### Manage Instances

Go to **Configuration > Authentication (SSO)** to get an overview of the configured **Single Sign-On Instances**.

Enabling the **Allow Project Managers to change their users' access to SSO instances** option will allow the Project Managers to modify their users **authentication** settings at the user **profile** page.

When this is disabled, Project Managers will be prevented from changing their user's access to SSO instances. The PMs will not be able to see the **Authentication** drop downs to the user's profile. In addition, the disabled instances will be hidden.

Single Sign-On Instances <span style="float: right;">New SSO Instance</span>										
<input type="checkbox"/> Allow Project Managers to change their Users' access to SSO instances.										
Name	Plug-in	Password Recheck	ID	Priority	Enabled	Listed	Try Next	Configure	Default	Delete
Basic password authentication	Basic password authentication	Yes	00002_0000000244	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Allow	delete
SAML Esko	SAML 2.0 (v1.0.11)	No	00002_0000000247	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	edit	Allow	delete
LDAP	LDAP password authentication	Yes	00002_0000000245	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	edit	Deny	delete
Test SAML	SAML 2.0 (v1.0.11)	N/A	00002_0000000248	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	edit	Deny	delete

**Name:** Name of the Single Sign-On Instance. Will be used for display in multiple places.

**Plug-in:** Name of the plug-in to which the Single Sign On Instance belong.

**Password Recheck:** Whether a particular instance supports password re-entry (upon submitting approval) or not.

- **Yes** or **No** : if the system supports password re-entry
- **N/A**: indicates that the information is currently not available. For example, if the instance is not enabled or fails to load.

**ID:** the internal ID. As an administrator, you can use this while addressing an SSO provider directly. For example, when redirecting from an external system.

**Priority:** determines the order in which the Instances are attempted for authentication. Also determines the display order in several places (user settings and log-in page).

**Enabled:** indicates whether the instance is operational. You have to enable an instance to use it for authentication. The options to change Instance specific user settings is only available for the enabled Instances.

**Listed:** indicates that an explicit log-in button will be available when the Instance is enabled.

**Try Next:** when this is enabled, the next Instance will be tried after the default log-in fails. The log-in attempts will stop at the first enabled Single Sign-On Instance when the **Try Next** option is disabled.

**Configure:** displays the **Edit** links to configure the plug-in specific instance configuration.

**Default:** you can configure whether a user is allowed to or denied from using an Instance. You can allow some users to authenticate at a specific Instance. The default can be changed in the user specific configuration.

**Delete:** use the **Delete** link to delete an Instance.

### Configure a Single Sign On Instance

To access the Single Sign On Instance configuration page, click the **configure** link from the instances row.

1. Go to the **Configuration > Authentication (SSO)** page. You will see the *overview table* of the configured **Single Sign-On Instances**.
2. Click **Edit** link in the row corresponding to the Instance to be configured. This opens a plug-in specific configuration of an existing Single Sign On Instance.



**Note:** You cannot edit the **Basic Password** configuration.

3. Modify the configuration details.

4. **Save.**

To make it active, you need to check the **enabled** option. To make it listed on the login page, enable **listed**. When you create a new User, the login options are determined by the status in the **default** column.

If an instance is in the **denied** status for a user, he/she will not get that option listed on the login page. The status specified in this page becomes the default in the user profile page.

### Single Sign-On Settings

You can view the Single Sign On settings specific to your User account in the **My WebCenter > My Password** page. This page will display the Single Sign On Instances that are enabled for your User account.

You may modify configuration details of the Single Sign On Instance depending on your permissions to do so. If you have permission to modify, all your values will be saved.



**Note:** User specific settings are possible when the Single Sign On Instance supports user specific configuration.

### Configure LDAP(S)

#### LDAP

**LDAP** (Lightweight Directory Access Protocol) is an application protocol for querying and modifying directory services running over TCP/IP.

In the context of WebCenter, it allows you to let users sign on to WebCenter with the same user name and password they use to log on to the corporate network.

#### LDAPS

**LDAPS** is the more secure variant of the protocol, and it uses SSL connections instead of plain (i.e. Unprotected) connections. It requires you to install certificates on the server, as described in [Install Certificates for LDAPS on the Application Server](#) on page 63.

While logged in to the WebCenter web interface as an administrator:

1. From the **Configuration > Authentication (SSO)** page, click on the **New SSO Instance** link.
2. Give the new Instance a **Name** and select the **Plug-in** as **LDAP password authentication**.
3. Click **Create**.  
A new LDAP instance will be created.
4. In the [overview table](#) of the configured **Single Sign-On Instances**, click **Edit** link corresponding to the LDAP instance.
5. Modify the configuration details.
6. Enter the name or IP address of the **LDAP Server**.  
Example: `esko.com`.
7. Type the **User Distinguished Name (DN)**.  
Example: `CN=BG System,OU=Users,OU=Gent,OU=Belgium,OU=Locations,DC=esko,DC=com`.
8. Provide the **Password** for the user you specified in the **User Distinguished Name** field in the previous step, and confirm it.

9. Enable the option **Use secure connection (LDAPS)** to encrypt all communication between WebCenter and the LDAP server.
10. You can specify additional elements in the **Advanced settings** field. For example, you can change the default port that is used in the case of LDAP over SSL. Use the various lookup keys to match the LDAP field against the WebCenter properties and then change the default LDAP keys. See below:

Options	Description
<b>ssl.port</b>	Default LDAP secure connection port The default value is 636.
<b>lookup.userinitials</b>	AD path used for LDAP login name lookup. The default value is <code>sAMAccountName</code> .
<b>lookup.firstname</b>	First name key <code>givenName</code> (default)
<b>lookup.lastname</b>	Last name key <code>sn</code> (default)
<b>lookup.mailid</b>	Mail id key <code>mail</code> (default)
<b>lookup.phonenumber</b>	Phone Number key <code>telephoneNumber</code> (default)
<b>lookup.mobilenumber</b>	Mobile Number key <code>mobile</code> (default)
<b>lookup.title</b>	Maps to the Function in WebCenter <code>title</code> (default)
<b>autoupdate</b>	Enable this to look up user info and to update during log in (values: 0 or 1). Specify the value as 1 The default is 0.
<b>enforce</b>	Enable this to make the user info read only for the user (values: 0 or 1). The default is 0.

11. Click **Save** to save the setup.



**Note:** Every time you change a setting on the **LDAP Setup** page, you must re-enter the full LDAP credentials.

## Single Sign On Log-in types

You will have different SSO login behavior depending upon the configuration and priority of the Single Sign On Instances.

- **Standard Login Page Instance (SLPI):**

This will show the login page when not logged in. LDAP and plain password authentication are examples.

- **Custom Login Behavior Instance (CLBI):**

CLBI might redirect you to a portal or show a dialog. SAML is an example of the CLBI type.

WebCenter 14.0.1 supports the SAML plug-in. Using this plug-in, WebCenter can communicate over the SAML 2.0 protocol with Shibboleth, PingFederate and Active Directory Federation Services (ADFS). WebCenter users can authenticate using their company-wide account. This will provide seamless access to WebCenter.



**Note:**

You need WebCenter advanced license to enable this feature.

The plug-in supports the following SAML 2.0 profiles:

- SP POST - IdP POST
- Unsolicited SSO (SP POST - IdP HTTP Redirect)



**Note:** SAML Artifact binding is not yet supported



**Important:** We recommend that you contact Esko solution architects for configuring the SAML plug-in.

You can also access the login page by directly navigating to login.jsp. The different login behaviors can again be triggered if the buttons for the wanted instances are listed on the login page.

A plug-in may override the logout behavior. For example, logging out may lead you to a portal.

## Single Sign on Passwords on Approval

When the [Require password for approvals/rejections](#) setting is enabled, your user is required to provide his password during approval. This depends on the Single Sign On Instance used by the user.

When the Instance supports this setting, the password is the same as the one required for the Single Sign On authentication.

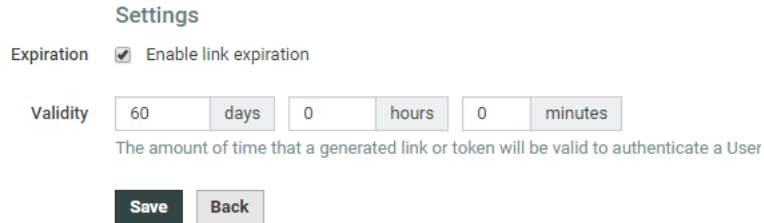
## Token Authentication

You can use **Token** based authentication to grant access to WebCenter without user credentials. For instance, you can grant access to the document approval page for approval actions using a document link.

- **Token:** A token is a piece of string that encodes various user data ( username, expiration date, signature, etc.) which acts as a substitute for credentials.
- **TokenAuth:** The WebCenter SSO plugin that is able to generate such tokens for WebCenter users and authenticate users based on these tokens. This is installed during WebCenter installation.:

To allow Token based authentication, follow the steps below

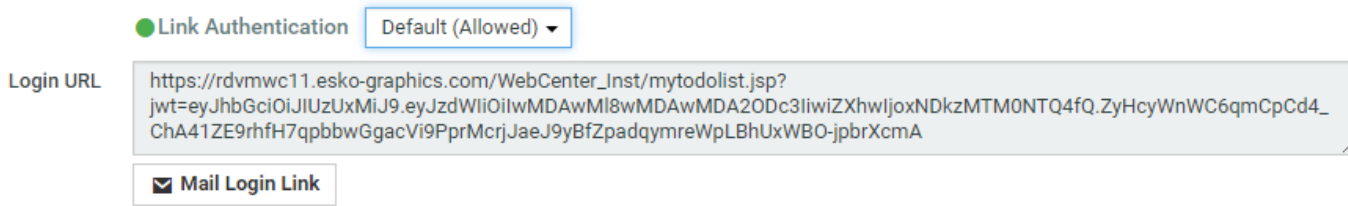
1. [Add a Single Sign-On Instance](#) on page 459 specifying a **Token Authentication** plugin.
2. [Configure a Single Sign On Instance](#) on page 460. Make sure that the instance is in the **Allow** status.



3. Specify the **Enable link expiration** and **Validity** parameters and Save.

The **Enable Link Expiration** is on by default and the **Validity** is set to 60 days. This means that all the links sent to authenticate using this instance will be expired after the **validity** period.

4. To send a login link to a User, click **Mail Login Link** from the User **Profile** page. The user can click on this link to login.



The default landing page is the **My Work** page. If the token is expired, the user will see the Login page with an error.

Whenever the token-authenticated user receives a notification with a link, the link contains a token to authenticate without user credentials. This permits the users added to the approval cycle to log in using the approval links from the notification mails.

### SAML Authentication

The SAML plugin will make it possible for WebCenter to communicate over the SAML 2.0 protocol with Federated Identity Provider Services such as Shibboleth, PingFederate and Active Directory Federation Services. This allows the users to authenticate through a Single Sign On (SSO) mechanism with WebCenter using their federated identity.

The configuration page of an instance of the SAML 2.0 (v1) plugin consists initially out of four sections:

- **SAML Profile** – Used to specify which SAML profile to use.
- **Identity Provider Details** – Used to specify and submit metadata of the Identity Provider, as well as configuring general customer specific settings.
- **Identity Provider Metadata**: Update the URL to the meta data of the IdP or alternatively upload a file containing the information.

- **Identity Provider Entity ID:** Specify the ID to be selected from the metadata
- **Links WebCenter Username to :** specify the field where WebCenter will look for the User name in the response. It can either be Subject Name ID or the Attribute where you specify the Attribute Name.
- **On error URL :** specify the URL where the user will be redirected when error occurs in the authentication process
- **On Logout URL:**specify the URL where the user will be redirected during the Logout process
- **WebCenter Service Provider Details**
  - **Entity Id:** This id will be auto generated when you save this page. By Default it points to the current WebCenter Instance.
  - **Assertion Consumer URL :** This URL will be auto generated when you save this page.
  - **Name Id Format:** Specify the format of Name Id of the subject.
  - **Formatting:** Select **Use URL Parameters** if URL parameters has to be used in Assertion Consumer Service URL.

**Example:**

*https://domain.com/WebCenter\_Inst/sso.wcr?ssoiid=00002\_0000000004*

Or:

*https://domain.com/WebCenter\_Inst/sso.wcr/00002\_0000000004/end.wcr*

- **Signing:** If the request has to signed, upload the signing certificate.  
 To be able to sign these outgoing authentication requests, WebCenter needs a private key and its corresponding certificate. These can be uploaded in a Java keystore in the **"SP Keystore"** field. This field appears along with the **"Keystore Password"**, the **"Key Alias"** and the **"Key Password"** fields when the **"Sign Authentication Requests"** option is enabled.
- **User Action Digital Signature:** By selecting this option, you can use your SAML for credential validation, when Approving Documents or for completion of Tasks.
- **User Provisioning:** Enable the option **Allow User Creation on First Login** to create new user in WebCenter.

Following SAML attributes are required for the new user creation.

Attribute name	Type	Containing	Required
WCR_USER_FIRST_NAME	String	The first name of the user.	No
WCR_USER_LAST_NAME	String	The last name of the user.	Yes
WCR_USER_EMAIL	String	The email the user.	Yes
WCR_USER_PHONE	String	The phone number of the user.	No
WCR_USER_MOBILE	String	The mobile number of the user.	No
WCR_USER_FUNCTION	String	The job title of the user	No
WCR_USER_GROUPS	(Multi) String	The names of the WebCenter groups to which the user should be added.	No

- **Authorization:** Select **Synchronize User Groups on login** to synchronize the user membership with the groups when the user log-ins to WebCenter.
- Save the changes and enable the SSO Instance in **Single Sign-On Instances** page.

Now the IdP details from the URL or the uploaded file is displayed.

Check the information updated by clicking on **WebCenter Service Provider Metadata** which is used to display the Service Provider metadata of WebCenter. This information can now be shared with the Identity provider.

### How to Login to WebCenter when the Single Sign On is broken

You can access WebCenter overriding the Single Sign On configuration in emergency situations. This can happen when the configured external system is down or when a mistake occurs leading to a broken configuration.

Use basic password authentication locally from the web server to gain access to WebCenter.



**Note:**

- You need direct access to the web server operating system to execute this.
- You have to remember a basic authentication password of a WebCenter Admin user. Or you should have enabled **Forgot Password** feature.

#### System History Logs

All Single Sign on related events like

- **Single Sign on Instance created**
- **Single Sign on Instance deleted** and
- **Single Sign on Instance changed**

are recorded and stored in System History. Read this page on how to access the [records](#)

## 3.19. Configure Microsoft Office Files for Viewing

---

You can view Microsoft Office documents (and other file types) in WebCenter (16.1 onwards). This feature requires configuration where you should specify the file extensions and corresponding OBGE Workflow tickets.

Read in [Configure Viewable Other File Types](#).

### 3.19.1. Steps to Configure Viewable Other Files

1. Modify: `WebCenter_Instance/custom/customizationConfig.xml`.

Inside this configuration file, add a 'SupportedViewableOther' section. Within that tag, you can place multiple instances of the extension tag, where you can define the file extension and the value for ViewGenerationTicket (which refers to a Ticket on the OBGE).

```
<SupportedViewableOther>
```



```

ViewGenerationTicket="MSOffice_to_SVG"/> <extension value=".doc"
ViewGenerationTicket="MSOffice_to_SVG "/> <extension value=".docx"
ViewGenerationTicket="MSOffice_to_Pixel"/> <extension value=".ppt"
ViewGenerationTicket="MSOffice_to_Pixel"/> <extension value=".pptx"
ViewGenerationTicket="MSOffice_to_Pixel"/> <extension value=".xls"
ViewGenerationTicket="MSOffice_to_SVG"/> <extension value=".xlsx"
ViewGenerationTicket="MSOffice_to_SVG"/> </SupportedViewableOther>

```



**Note:**

WebCenter allows deployment of multiple web instances on one server and the configuration of customizationconfig.xml is done per instance. However, the Workflow Engine and Dashboards are shared across all instances. To make sure the settings work in a Workflow and in Dashboards, add the following to the customizationconfig.xml file:

```

<MainInstance
                                value="true"/>

```

This should only be added to one WebCenter Instance. If it is added to multiple instances, these configurations will overwrite each other. If it is not present in any instance, the extension list will be ignored in Workflows and Dashboards.

2. You need to create Custom Workflow Tickets (with a ScriptRunner Node) for OBGE according to the mapping made in the customizationconfig.xml. See the examples for such Workflow Tickets in [Recommendations and Examples](#) on page 468.
  - The ScriptRunner node should refer to the right server (can be the OBGE itself) where the right conversion Script is located.

Read more in: [Pixel Based Viewing Vs SVG Viewing](#) on page 467

### 3.19.2. Pixel Based Viewing Vs SVG Viewing

You can view documents in pixel based or vector based formats depending on the view files that are generated (as specified in the [configuration](#)).

**Pixel based viewing**

Use the pixel based setup if you need the graphical compare and channel information for the documents. This setup will not render sharp text or text extraction.

To enable pixel based viewing, we propose the following structure in the OBGE Workflow Ticket:

- A **Scriptrunner** node to convert *Other* document to a viewable type, e.g. PDF.
- A **Select Document** node to select the generated document.
- A **Prepare for Viewing** node to generate the pixel-based view files.

- A **Scriptrunner** node to remove the temporary files created in the first step.

See [Recommendations and Examples](#) on page 468.

### Vector based viewing

A vector based setup will enable you to extract text and view sharp text in deep zoom viewing. However, the graphical compare and channel information are deactivated in this setup.

To enable vector based viewing, we propose the following structure in the OBGE Ticket:

- Configure **Scriptrunner** node to convert *Other* documents to SVG files.
- For single page documents, an SVG should go straight into the **Job** folder, which is passed as a parameter to the script.
- For multi-page documents, an SVG for each page should go into a sub-directory of the Job Folder with the page number as folder.
- We recommend generating a thumbnail for each page in the Script file. These need to go in the same folder as the SVG file. The following files are needed:
  1. <Document\_name>.JPG, which is 200x200 pixels
  2. <Document\_name>\_50.JPG, which is 50x50 pixels
  3. <Document\_name>\_100.JPG, which is 100x100 pixels

See [Recommendations and Examples](#) on page 468.

### 3.19.3. Recommendations and Examples

The setups detailed below will create 'viewable files' in two steps. The Microsoft Office documents will be converted to PDF. In the next step, the PDF documents will be converted into SVG view files or pixel based view files.

We recommend LibreOffice to convert the document to a PDF. This will just execute a "Save as PDF" on the document. You can use MS Office which requires licensed MS Office to be present on the server.

The recommended solutions given below refers to the Tickets and Scripts given in the example folder.



**Note:** Remember to fill out the file paths mentioned in each of these Scripts.

See this [KB Article for example scripts and tickets](#).

## 3.20. Connecting to Automation Engine

---

You can connect to your or a client's Automation Engine from WebCenter. Using this connection, you can:

- send files
- push metadata
- launch a workflow

To establish a successful connection, you need to configure both the Automation Engine and the WebCenter settings.

Read about configuring the Automation Engine [here](#).

You can connect to Automation Engine:

- in the same LAN or publicly available through an **Automation Engine Host Address**



**Tip:** The Host Address may look like '192.168.1.1' or 'aeserver.brand.com'.

- via a tunnel when not publicly available or not in the same LAN. Read in: [Create a Tunnel between WebCenter and Automation Engine](#) on page 469

### 3.20.1. Create a Tunnel between WebCenter and Automation Engine

When the Automation Engine is not situated in the same LAN and not available publicly, you need a tunnel to send exchange workflow commands and data between WebCenter and Automation Engine. To create such a tunnel, follow the steps below:

Web

1. [Create a Workflow approval and tunnel client](#).

When WebCenter and Automation Engine are not on the same LAN, this **workflow approval and tunnel client** will establish a bi-directional communication.



**Note:** The Automation Engine Pilot needs to have the **workflow approval client** credentials to send messages to WebCenter.

2. Enter the **Workflow approval and tunnel client** credentials in the Automation Engine configure tool.

Fill out the client **Name** and **Password** and click the **Check Connection** button. This will check if the user can log on successfully.

3. **Save** this configuration.



**Tip:** After configuring a new WebCenter site, it is recommended to close your Pilot and start it again in order to see the updated list of WebCenter sites in your tickets.

4. Optionally, you can check the connection between Automation Engine and WebCenter from the **admin > configurations > workflow and tunnel clients** page. Click the **Start Monitoring** link to see if the connection is active.

5. Click **Admin > Configuration > Workflow Connections**.

The **Workflow Connections** page appears, listing the workflow connections already created (if any).

6. Click **New Workflow Connection**.

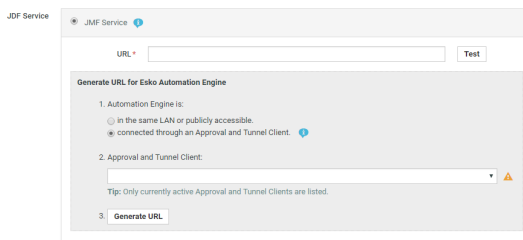
7. Enter a **Configuration Name**.

8. Select the **Connection type** as **JDF Service**.

9. Now, specify the **JDF Service** as **JMF** service.



**Note:** You need **JMF Service** to connect to Automation Engine if it is not in the same LAN or not publicly available.



- Specify that your Automation Engine is connected via the **Approval and Tunnel Client** created in step 2. Select the **Approval and Tunnel Client** from the drop-down and click **Generate URL**.



**Warning:** A **Workflow Connection** connected through an **Approval and Tunnel Client** will block one concurrent license.

- Enable the **Active Connection** option to activate this workflow connection.



**Note:**

If you disable this option, there will be no synchronization between WebCenter and your workflow system, but the connection data will be saved, so you can reactivate it later.

- Click **Create**.

### 3.21. SmartNames

A SmartName is a variable that refers to a value that is resolved according to the context, for example `[Project Creation Date]` refers to the creation date of the current project. It is a placeholder value for a property which will be replaced with an actual value when placed in the right context.

You can use SmartNames in different pages in WebCenter. They are displayed between square brackets.

Folder:


You can also combine them with plain text.


Folder:

Using SmartNames to specify a setting ensures that you can use the existing information without having to remember it and thereby reducing errors.

For example, if you use [Parent Project Name], the smartname will resolve to the name of the existing Parent project(s) taking the current Project as the search context.

### 3.21.1. Using a SmartName

You can use SmartNames anytime you see the SmartName symbol  in a text field.

1. Click .
2. In the **Select to append a SmartName** field or **Insert a SmartName** dialog, select the desired SmartName using one of the following methods:
  - a) During the **autoname** generation, browse to the desired SmartName in the **Select to append a SmartName** field and select.  
Alternatively, you can also double-click the SmartName.
  - b) In the **Search** using SmartNames, you can scroll in the main **sections** list and double-click on the desired SmartName.  
You can also search for a SmartName.
    - The search field has support for AND and OR operators.
    - Spaces can be used and will act as AND operators.
    - Semicolons can be used and will act as OR operators.
    - You can place your search term inside double quotes (") when an exact match is required.



**Tip:**

- You can type the first letters of the SmartName you are looking for to show it in the list.

### 3.21.2. List of Available SmartNames

The following is the list of available SmartNames

Section	SmartName Available	Workflow	Search	AutoName
Attributes (Document)	All WebCenter attributes are available in both Workflow and search	#	#	
Attributes (Project)	All WebCenter attributes are available in both Workflow and search	#	#	
Document	[Document Description]	#		
	[Document Extension]	#		
	[Document ID]	#		
	[Document Name]	#	#	
	[Document Version ID]	#	#	
	[Document Version Number]			#

Section	SmartName Available	Workflow	Search	AutoName
	[Input Document Version Ids]	#		
	[All Document Version IDs of Document]		#	
	[All except Latest Document Version ID]		#	
	[Document Version Revision]		#	
	[Document Version Project]		#	
Other	List	#	#	
Project	[Customer Legal Name]	#		
	[Customer Location]	#		#
	[Customer Name]	#		#
	[Customer ShortName]	#		#
	[Due Date]	#		
	[Project Description]	#		
	[Project ID]	#	#	
	[Project Name]	#	#	
	[Project Manager]	#		
	[Project Manager Name]		#	#
	[Project Manager Location]		#	#
	[Project Manager Location Code]		#	#
	[Project Manager Last Name]		#	#
	[Project Name]	#	#	
	[Project Template Name]		#	#
	[Parent Project ID]		#	
	[Customer Location Code]			#
	[Salesperson]	#		
[Project Creation Date]			#	
Specifications	All WebCenter Specification available only in Workflow	#		
Task	[Workflow ID]	#		
Text/Table Content	[Content Status]	#		
	[Element Type]	#		
	[Language Status]	#		

Section	SmartName Available	Workflow	Search	AutoName
	[ Master Languages ]	#		
	[ Text Content Value ]	#		
	[ Table Content Value ]	#		
	[ Translation Languages ]	#		
Dates	[ Current Date ]	#		
	[ Project Due Date ]	#		
	[ workflow Due Date ]	#		
	[ workflow Start Date ]	#		
User	[ Requestor User Name ]		#	#
	[ Requestor First Name ]		#	
	[ Requestor Last Name ]		#	#
	[ Requestor Location ]		#	#
	[ Requestor Company ]		#	#
	[ Requestor Company Location Code ]		#	#
Email	[ Project Manager (E-mail) ]	#		
	[ Sales Person (E-Mail) ]	#		
	[ Workflow Task Owner (E-Mail) ]	#		
Groups	All Groups available in WebCenter	#		
Roles	All Roles available in WebCenter	#		
Users	All Users available in WebCenter	#		
Iteration	Iterator Value	#		



**Note:** The **EditField** SmartName can be used only in the Suffix.

## 3.22. Bill of Materials

### 3.22.1. What is a Bill of Materials?

A Bill of Materials (or "BOM") is a list of all parts and assemblies required to build a complete shippable product. It shows what will be created and delivered during a project.

In WebCenter, this is a list of documents representing the deliverables. The documents can be actual production files or placeholder documents.

### 3.22.2. Enabling the Bill of Materials Feature

By default, the Bill of Materials functionality is disabled for the entire WebCenter system. This means that Bill of Materials features will not be visible.

To enable it, do the following:

1. Go to **Admin > Preferences > General**.
2. Under **Bill of Materials**, select the **Use Bill of Materials** option.
3. Click **Save**.

### 3.22.3. Viewing a Project's Bill of Materials

Every project has a Bill of Materials, which is by default empty.

If [the Bill of Materials feature is enabled](#), you will see a **Bill of Materials** tab on your Project Details page. The tab header indicates how many documents are linked to the Bill of Materials.



**Note:**

You will only see the document(s) in the Bill of Materials (and their attributes) if you are either:

- an Administrator,
- the Project Manager,
- invited to the Project, with view permissions on **all** documents in the Bill of Materials.

Otherwise, you will see a message stating that you don't have permissions to view the document(s) in the Bill of Materials.



Project: Drupa16\_Library for Folding Carton Active






Upload
Upload Multiple Documents
Mail link to
More...

Manager: Kelzer, Debbie (DEKE)  
 Customer:  
 Due On: Jul 6, 2016  
 Modified: Jul 6, 2016  
 Description:

Documents Bill Of Materials Tasks Discussions Characteristics Attributes More...

---

View and Annotate
Compare in Viewer
Download
Delete Document(s)
More...

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Documents	Count	Folder	Order	Version	Approval
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 LUMI_PLUS_CARTON_BLUE.pdf (4.2MB)	<input type="text" value="1"/>	Root Folder	1	1	Setup Approval Cycle
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 LUMI_PLUS_CARTON_GREEN.pdf (5.4MB)	<input type="text" value="1"/>	Root Folder	2	1	Setup Approval Cycle
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 LUMI_PLUS_CARTON_ORANGE.pdf (13.6MB)	<input type="text" value="1"/>	Root Folder	3	1	Setup Approval Cycle
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 LUMI_PLUS_CARTON_PINK.pdf (4.8MB)	<input type="text" value="1"/>	Root Folder	4	1	Setup Approval Cycle
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	 LUMI_PLUS_CARTON_PURPLE.pdf (4.8MB)	<input type="text" value="1"/>	Root Folder	5	1	Setup Approval Cycle

Upload Copy Add to Bill of Materials

Save

When clicking this tab, you see the documents in the Bill of Materials, with information about the documents (folder, version, approval cycle, tasks...) and their **Count**. This indicates how many copies of that document are required for that project's Bill of Materials.



**Note:** The count is specific for a document within a project. This means that the same document can be linked in multiple projects with a different count.

If a document has an attribute category assigned, you will see a **+** button. Click it to show its attributes (in list view), and click **-** to hide them again. To show/hide the attributes of all documents in the BOM, click **+** or **-** in the header of the table.



**Tip:** By default, the "Default" view for the attribute category is displayed, but if the attribute category has a view called "BOM", this view is shown.

### 3.22.4. Editing the Bill of Materials

#### Who Can Edit the Bill of Materials?

Administrators and the Project Manager can always change the Bill of Materials. Other members can be allowed to change it, if they have the **Change BOM** permission. This permission can be set on the project's **Security** page (see [Project and Document Security](#) on page 822 in the User Guide).



**Note:** You can only set the **Change BOM** permission at the Project level, not at the folder level.

If a user can change the attributes on the attributes page, he/she can also change them on the Bill of Materials page.

**Table: Permissions on Bill of Materials Documents**

	Administrators	Project Managers	Users with Change BOM Permission	Users without Change BOM Permission
Can add/remove documents to/from the BOM in <b>active projects</b>	YES	YES	YES	NO
Can add/remove documents to/from the BOM in <b>inactive projects</b>	YES	YES	NO	NO
Can change the count of BOM documents	YES	YES	YES	NO

### Adding Documents to the Bill of Materials

You can only add documents to the Bill of Materials if:

- you are an Administrator,
- you are the Project Manager,
- you have **Add** and **Change BOM** permissions on the Project.

### Adding Documents to the Bill of Materials at Project Creation

If you want Project Managers to be able to already add documents to the Bill of Materials when creating a Project, do the following:

1. As an Administrator, go to the Project or Template that Project Managers will use to create Projects, and click the **Configure** tab then **Project Creation**.



**Tip:** Use a Project or Template that contains a Bill of Materials with documents if you want Project Managers to have the option to copy these documents into their new Project's Bill of Materials.

2. Select the **Show** check box for the **Change Bill of Materials** option.

If you want Project Managers to have to add **at least one** document to the BOM when creating the Project, also select the **Required** check box.

Click **Change**.

3. When a Project Manager creates a Project from that Project or Template, he/she will see a **Bill Of Materials** section on the Project creation page.
  - when creating the Project from a Template, that section will contain the documents in the Template's Bill of Materials.
  - when creating the Project from a Project, he/she will have to choose whether to copy the documents from that Project's Bill of Materials into the new Project's Bill of Materials.

To copy them, the Project Manager should select **including BOM** in the **Copy setup from an existing project** pop-up.



**Note:** A Project Manager will not see a **Bill Of Materials** section on the Project creation page when creating a blank Project.

4. The Project Manager can still edit the Bill of Materials while creating the Project. He/she can:
  - add documents using the [Upload](#), [Copy](#) and [New](#) links,
  - remove documents by clicking the - buttons in their rows,
  - change the **Count** of Bill of Materials documents,
  - edit the documents' attributes (by clicking + and filling them in).

### Add Documents from the Bill of Materials Tab

From the Project's **Bill of Materials** tab, you can:

- [Upload a new document from your computer or network.](#)
- [Copy a document from another Project.](#)
- [Create a placeholder document from a document template.](#)
- [Add a document already in the Project to the Bill of Materials.](#)

#### **Upload a Document from your Computer or Network**

To upload a document into your Project's Bill of Materials:

1. Click **Upload** at the bottom of the **Bill of Materials** tab.
2. Click the **Browse** button and browse to your document.
3. If desired, select a [document template](#) to use for your document.



**Note:** This is only available if the Project has been created from a Project/template containing document templates, or if the Project itself has document templates configured.

The template you choose will determine what attributes are associated with the document.

If you don't select a document template, the document will have the attribute category associated with its document type in the **Configure > Document Creation** tab of the Project (see [Document Types](#) on page 176).

4. Fill in the attributes associated with the document (at least the required ones).
5. If desired, enter a new **Name** and a **Description** for your document.



**Note:** If [Automatic Document Naming](#) is set up for [document creation](#) in the Project, the **Name** will be created automatically (you cannot enter it).

6. Enter the **Count** of this document (how many copies are needed for the Bill of Materials).  
This can be a fraction or a decimal number.
7. Choose where to upload the document (in the Project's **Root Folder** or one of its sub folders).  
Choose **Default (Template)** if you want to use the folder defined in the document template you selected.
8. Click **Save**.

**Copy a Document from Another Project**

To copy a document from another project into your Project's Bill of Materials:

1. Click **Copy** at the bottom of the **Bill of Materials** tab.
2. Select a Project (or start typing a Project name) in the second drop-down list.
3. Select a document in that Project (or start typing a document name) in the third drop-down list.
4. If desired, select a [document template](#) to use for your document.



**Note:** This is only available if the Project has been created from a Project/template containing document templates, or if the Project itself has document templates configured.

The template you choose will determine what attributes are associated with the document.

If you don't select a document template, the document will have the attribute category associated with its document type in the **Configure > Document Creation** tab of the Project (see [Document Types](#) on page 176).

5. Fill in the attributes associated with the document (at least the required ones).
6. If desired, enter a new **Name** and a **Description** for your document.



**Note:** If [Automatic Document Naming](#) is set up for [document creation](#) in the Project, the **Name** will be created automatically (you cannot enter it).

7. Enter the **Count** of this document (how many copies are needed for the Bill of Materials).

This can be a fraction or a decimal number.

8. Choose where to upload the document (in the Project's **Root Folder** or one of its sub folders).

Choose **Default (Template)** if you want to use the folder defined in the document template you selected.

9. Click **Save**.

**Create a Placeholder Document from a Document Template**

To create a placeholder document from a [document template](#):



**Note:** This is only available if the project has been created from a project/template containing document templates.

1. Click **New** at the bottom of the **Bill of Materials** tab.
2. In the pop-up that opens, select the document template to use and click **OK**.

The template you choose will determine what attributes are associated with the document.

3. Fill in the attributes associated with the document (at least the required ones).
4. If desired, enter a new **Name** and a **Description** for your document.



**Note:** If [Automatic Document Naming](#) is set up for [document creation](#) in the Project, the **Name** will be created automatically (you cannot enter it).

5. Enter the **Count** of this document (how many copies are needed for the Bill of Materials).

This can be a fraction or a decimal number.

6. Choose where to upload the document (in the Project's **Root Folder** or one of its sub folders).

Choose **Default (Template)** if you want to use the folder defined in the document template you selected.

7. Click **Save**.

#### Add a Document Already in the Project to the Bill of Materials


To add a document already in the Project to the Bill of Materials:

1. Click **Add to Bill of Materials** at the bottom of the **Bill of Materials** tab.
2. Select the Project document to add to the Bill of Materials.
3. Enter the **Count** of this document (how many copies are needed for the Bill of Materials).

This can be a fraction or a decimal number.

4. Click **Save**.



**Tip:** In the Project's **Documents** tab, documents that are in the Bill of Materials have a BOM icon . You can click this icon to see the Bill of Materials.

#### Add Documents from the Documents Tab

You can add documents that are already in the Project to the Project's Bill of Materials.

To do this, select the document(s) to add and click **Actions > Add to Bill of Materials**. This adds the document to the Bill of Materials with a count of 1.

#### Add Documents from the Upload Page

You can also add a document to a Project's Bill of Materials while uploading a document using the **Upload** button. You just need to select **Add to Bill of Materials** and specify a **Count** (see [Uploading a Document via Upload](#) on page 610).



**Note:**

You can only do this if:

- you are an Administrator,
- you are the Project Manager,
- you have the **Change BOM** permission.

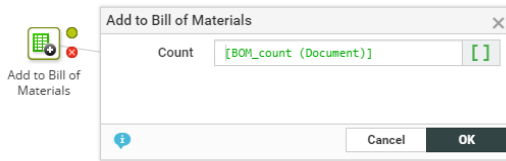
#### Add Documents from a Workflow

You can add documents to the Bill of Materials automatically using the workflow's **Add to Bill of Materials** task.

In the task's **Parameters**, you can set the documents' **Count**.



**Tip:** You can use a SmartName (for example a document or project attribute) to set the count.



Here is an example workflow using the **Add to Bill of Materials** task:



**Tip:** You can use the **Select Document** task to select all the documents in the BOM (select the **Documents in the Bill of Materials** option in the **Parameters**).

### Add Documents from Automation Engine

You can add documents to a WebCenter Project's Bill of Materials using the Automation Engine **Publish on WebCenter** task (from Automation Engine 12.1).

When you publish an Automation Engine **Product** to WebCenter, the **Product Properties** and **Product/Product Part Parameters** will be taken as WebCenter attributes.

If there are existing WebCenter attributes with corresponding names, their values will be updated during publishing.

The following Product (Part) properties and Product (Part) Parameters are synchronized with WebCenter attributes:

Automation Engine Properties/Parameter	WebCenter Attribute (Internal name)
Product Customer Reference	ae.p.cusref
Product Custom Field 1	ae.p.category1
Product Custom Field 2	ae.p.category2
Product Custom Field 3	ae.p.category3
Product Internal ID	ae.p.id
Product ID	ae.p.prodid
Product Name	ae.p.name
Product Description	ae.p.desc
Product Part Internal ID	ae.ppid
Part Default Angle	ae.pp.defaultangle

Automation Engine Properties/Parameter	WebCenter Attribute (Internal name)
Part Default Dotshape	ae.pp.defaultdotshape
Part URL	ae.pp.url
Part Default Ruling	ae.pp.defaultruling
Part Preferred InkBook	ae.pp.preferredinkbook
Part Preferred InkBook UI	ae.pp.preferredinkbookui
Part Internal ID	ae.pp.id
Part Custom Field 3	ae.pp.category3
Part Custom Field 2	ae.pp.category2
Part File	ae.pp.file
Part Status	ae.pp.status
Part Status Nickname	ae.pp.status_nickname
Part Status User	ae.pp.status_user
Part Status Notes	ae.pp.status_notes
Part Status Date	ae.pp.status_date
Part Folder	ae.pp.folder
Part Custom Field 1	ae.pp.category1
Part Name	ae.pp.name
Part Inks	ae.pp.inks
Part Barcodes	ae.pp.barcodes
Product Customer Name	ae.c.name
Product Customer Description	ae.c.desc
Product Customer ID	ae.c.id
MyProductParameter1	ae.p.par.MyProductParameter1
MyProductPartParameter2	ae.pp.par.MyProductPartParameter1

When a **Product** or **Product Part** is published, corresponding WebCenter documents are automatically added to the **Bill Of Materials** of the Project.

The **Product Amount** for the Job (if given) becomes the **Count** property of the **Bill of Materials**.

### Removing Documents from the Bill of Materials

To remove a document from the Bill of Materials, select it in the **Bill of Materials** tab and click **Actions > Delete from Bill of Materials**.



**Note:** Removing a document from a Project (or moving it outside that Project) removes it from the Project's Bill of Materials as well.

### 3.22.5. How to Search for a Bill of Materials

#### Search for Projects that have a Bill of Materials

When searching for Projects using the *normal search*, you can specify that you only want to see Projects that have a Bill of Materials. To do this, select **Only Projects with Bill of Materials** in the **Bill of Materials** option.

#### Viewing the Bill of Materials in a Project Search

When searching for Projects, you can view a summary of the Bill of Materials documents per approval status for each Project found.

To do this, just select the **View (List)** option for **Bill of Materials** on the **Search For Projects** page. See [Search Result Options](#) on page 577 in the User Guide for more information about displaying search results.

Search Results Save This Search Save Search Results

Delete More...		Name ↑	Status	Bill of Materials
<input type="checkbox"/>		Demo_00001	Platemaking	1 1 2 1 5
<input type="checkbox"/>		Demo_00002	Platemaking	1 5 6
<input type="checkbox"/>		Demo_00003	Platemaking	1
<input type="checkbox"/>		Demo_0004	Active	1
<input type="checkbox"/>		Demo_0005	Active	1

In the **Bill of Materials** column on the **Search Results** page, you can view the number of:

- approved documents,
- force approved documents,
- rejected documents,
- force rejected documents,
- documents waiting for approval,
- documents with a paused approval setup,



- ✕ documents without an approval setup,
  - 📄 (all) documents,
- ... in each Project's Bill of Materials.



**Tip:** Click one of the approval statuses' icons (for example pending 🔄) to show the BOM documents with this status.

### 3.22.6. How to See if a Document is Part of a Bill of Materials

In the Project's **Documents** tab, documents that are part of the Bill of Materials have a BOM icon 📄. You can click that icon to go to the Project's Bill of Materials page.

On the **Document Details** page, the BOM icon 📄 indicates whether the document is a part of a Bill of Materials. You can also click that icon to go to the Project's Bill of Materials page.



**Note:** A document can be part of more than one Project's Bill of Materials (if it is linked into multiple Projects).

### 3.22.7. Bill of Materials History

You can see all changes made to your Project's Bill of Materials in the **Project History**.

You can see for example:

- new documents added to the Bill of Materials,
- documents removed from the Bill of Materials,
- changes to a document's count.

### 3.22.8. Email Notifications for Bill of Materials Changes

To send email notifications when something has changed in your Bill of Materials:

1. In your Project, go to the **Notifications** tab and select who to **Notify by E-Mail** in the **Bill of Materials Changed** row.
2. Click **Save**.

The recipients will get emails when:

- a document is added to the Bill of Materials,
- a document is removed from the Bill of Materials,
- a document's count is changed.

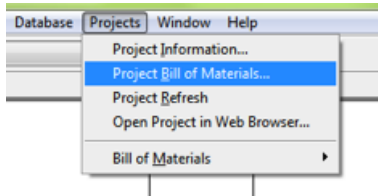
### 3.22.9. Working on the Bill of Materials from ArtiosCAD Enterprise

With ArtiosCAD Enterprise, you can see all your Projects and (ArtiosCAD) documents from WebCenter.

If you open a document in ArtiosCAD Enterprise, you can go to the Project's Bill of Materials and see a list of all the Bill of Materials documents.



**Note:** You need ArtiosCAD Enterprise 12.1 to work with WebCenter Bills of Materials.



In ArtiosCAD Enterprise, you can:

- change the count of ArtiosCAD files in the Bill of Materials,
- add a document revision (A, B, C...) to an ArtiosCAD file (this is shown in the **Version** column of the **Bill Of Materials** tab, and in the document's **Action History**),



**Note:** When you work with revisions on a Bill of Materials document, the latest version within a revision is the version in the Bill of Materials.

- add a print item to an ArtiosCAD file (this is shown in a separate column in the **Bill Of Materials** tab),
- change the order of the Bill of Materials documents.

Once you click **OK**, this is updated in WebCenter.



**Note:** You cannot add a document revision or a print item to an ArtiosCAD file, or change the order of the Bill of Materials documents from WebCenter.

## 3.23. Autonaming

### 3.23.1. Autonaming Projects / Documents

An administrator can configure a setup for automatically naming the projects and documents. You can specify the rules for both **Project** and **Document Autonaming**.



**Note:** By default, this feature is not enabled.

#### Autonaming Structure

An **Autoname** consists of a **Prefix**, **Suffix** and **Counter Length**.

A **Counter** keeps track of the count when a new project is created or when a new document is uploaded. The **Counter Length** is the fixed length of the Counter.

**For example;** If the **Prefix** is **begin\_**, **Suffix** is **\_end** and the **Counter Length** is set to **4**, then the Autaname will be **begin\_0001\_end**. The next one will be **begin\_0002\_end**.



**Note:**

The Project / Document **Autanames** are generated during the Project creation or Document submission.



**Note:**

- The Prefix field cannot be empty. The Prefix and Suffix fields are limited to 150 characters for Counter Length field is 20.
- If the counter length is 0 or left empty, no numeric part will be added to the Autaname. The maximum characters for Counter Length is set to 20.

### Autonaming Projects

You can configure Autonaming for Projects in the following ways:

- [Systemwide Project Autonaming](#) on page 485
- [Autonaming in Projects / Templates](#) on page 485

### Systemwide Project Autonaming

You as an administrator can enable/disable systemwide **Project Autonaming**.

1. Log in to WebCenter as an Admin user.
2. Click **Admin > Preferences > General**. The General page appears.
3. In the **Project Autaname Generation** section, specify appropriate **Prefix**, **Suffix** and **Counter Length**.

Click  to select required SmartNames. The **EditField** SmartName can used only in the Suffix.

Enable **Use Automatic Naming for Creation of Blank Projects** to apply the autoname generation settings for projects created from a blank template.

4. Click **Save** to make the changes.

### Autonaming in Projects / Templates

Use template based **Autonaming** setup to apply automatic naming to the Projects created from a Template or another Project.



**Note:** If you setup **Autonaming** in an existing template, only the future Projects will be named automatically.



**Note:** When you setup Autonaming in a template, only the future projects will be named automatically. It does not alter the existing Projects created from the same template.

1. Log in to WebCenter as an Admin user.
2. Click **Admin > Project Management > Projects** or **Templates**.
3. Choose the Project or Template and go to **Configure > Project Creation** tab. Enable the **Use Automatic Naming** option. Then select:
  - **Use Custom Automatic Naming** to specify an automatic naming setup just for this **Project** or **Template**.
  - **Use Default Automatic Naming**, if you have configured [Systemwide Project Autonaming](#).

You can apply the same settings by selecting the **Use Default Automatic Naming** option.

4. If you select the **Use Custom Automatic Naming** option, you have to enter the text boxes with appropriate **Prefix**, **Suffix** and the **Counter Length**.



**Note:** Click  to select required SmartNames. The **EditField** SmartName can be used only in the Suffix.

5. Click **Change** to make the changes.

### Systemwide Autonaming for Different Document Types

The administrator can set up the document **Automatic Document Naming** settings per Document Type in the following ways:

- [System-Wide Document Autonaming](#) on page 486
- [Template/Project-based Document Autonaming](#) on page 487

### System-Wide Document Autonaming

The administrator can set up the document **Automatic Document Naming** settings per Document Type.

The options available are None or Custom Automatic Naming options. The Custom option allows you to customize the required autoname setup.

The option **Apply Automatic Naming to Documents in Blank Projects** allows you to setup autoname generation for blank documents also. The **Apply Default Attribute Categories to Documents in Blank Project** option allows you to add the default attribute category to documents which exists in blank projects. For example: If you upload abc.ard file and the Prefix is **[FolderName]** the Counter Length is set to **4** and the Suffix is empty, then the autoname will generated as **DESIGN\_0001.ard**.

Using the **Scope of the Counter** option the administrator can specify whether the counter will continue counting system wide, or whether it will reset for every project. If the option **Reset per Project** is selected then, autoname will be generated as begin\_0001\_end and next document will be begin\_0002\_end and so on.

If **System wide Counter** is selected and files already exists, autoname will be generated as begin\_0098\_end and next can be begin\_0112\_end. The counter here depends on the number of files which are uploaded to the system and not on each of the project.

1. Log in to WebCenter as an Admin user.
2. Click **Admin > Preferences > Document Types**. The Document Types page appears.
  - Select the **Apply Automatic Naming for Creation of Blank Projects** check box to apply the autonaming setup to the Projects created from blank template.
3. Set the corresponding **Automatic Document Naming** field to **Custom..** Read more in: [Document Type Preferences](#) on page 105
  - a) Specify a **Prefix**, **Suffix** and the **Counter Length**. Read also: [Autonaming Structure](#) on page 484
  - b) Specify the **Scope of the Counter**.
  - c) Optionally, you can enable **File Extension Specific Counter** for autonaming. This will make sure that you have different counters for different types of documents.

If the option **Reset per Project** is selected, the Autonaming will be reset in every project and the counter depends on the documents uploaded to any single Project.

If **System wide Counter** is selected, the Autoname will be generated counting the existing files (for example: begin\_0098\_end). The counter here depends on the number of files which are uploaded to the system and not on each of the project.



**Note:** Click **ET** to select required SmartNames. The **EditField** SmartName can used only in the Suffix.

If you upload abc.ard file to the folder Design where the Prefix is **[FolderName]**, the Counter Length is set to **4** and the Suffix is empty, the name of the document would be **DESIGN\_0001.ard**.

4. Click **Save** to make the changes.

### Template/Project-based Document Autonaming

- **Template/Project-based document autonaming:** The administrator can set up the document auto name settings per document type on the Document Types page. The Document Types page allows to enable/disable specific document types and is extended to also have a section for setting auto naming details per document type. The administrator can specify Prefix, Suffix and Length for each of the Document Types available.



**Note:**

Only newly uploaded documents will have the correct auto naming settings applied to them. When the option **Apply automatic naming to Documents in Blank Projects** is selected, the default settings will be used when uploading documents in projects which are created without a template.

Using the **Scope of the Counter** option the administrator can specify whether the counter will continue counting system wide, or whether it will reset for every project.

If the option **Reset per Project** is selected then, autaname will be generated as begin\_0001\_end and next document will be begin\_0002\_end and so on.

If **System wide Counter** is selected and files already exists, autaname will be generated as begin\_0098\_end and next can be begin\_0111\_end. The counter here depends on the number of files which are uploaded to the system and not on each of the project .

The SmartName [Project Attribute] and [Document Attribute] contains an extra option. When selecting these options, an extra drop-down appears to select the attribute. It is advised to set such attributes required in the creation view of the attribute category, else this part of the name will remain blank.



**Note:** Changing or modifying the attribute value after creation of the project or document will not change the existing name.

1. Log in to WebCenter as an Admin user.
2. Click **Admin > Project Management > Templates**. The list of available templates appears in the Template Management page.
3. Click one of the required templates and then click **Configure > Document Creation**. The Document Types page appears.
4. Select the required Document type and then in the **Automatic Document Naming** section choose between None, Default or Custom options.
  - a) If you select the **None** option, the autonaming option is not selected.
  - b) If you select the **Default** option, the setting as per **System wide Document Auto Naming Settings** are taken into consideration.
  - c) If you select the **Custom** option, you can enter the text boxes with appropriate **Prefix, Suffix** and the **Counter Length**. The **Scope of the Counter** specifies whether you want the counter to work on all the documents in the system, or only to work on the documents of the project when a new document is created.



**Note:** Click  to select required SmartNames. The **EditField** SmartName can used only in the Suffix.

The SmartName [Project Attribute] and [Document Attribute] contains an extra option. When selecting these options, an extra drop-down appears in which an administrator can select a required attribute.

5. Click **Save** to make the changes.



**Note:** When the Document Autonaming settings for a Template are changed, these are not applied to all projects already created from this template.


## Using SmartNames in Autonaming

You can use **SmartNames** to set the prefix and suffix in AutoNaming.


The SmartNames list contains general Project information and all the Attributes defined in the system. You can use several SmartNames or a combination of SmartNames and free text.




**Note:** To know more on configuring project information see [Project and Document Attributes](#) on page 320.

- Click the **Insert SmartName** button  and select a SmartName from the list that appears next to the button.

Project Autaname Generation

Prefix  

Counter Length

Suffix  

[Project Attribute]

Select to append a Smartname...

- [Customer Name]
- [Customer Short Name]
- [Customer Location]
- [Customer Location Code]
- [Edit Field]
- [Project Attribute]
- [Project Template Name]
- [Project Creation Date]
- [Project Manager Last Name]
- [Project Manager Name]
- [Project Manager Location]
- [Project Manager Location Code]
- [Requestor Username]
- [Requestor Last Name]
- [Requestor Location]
- [Requestor Company]
- [Requestor Company Location Code]


If you select:

- [Project Attribute],
- [Document Attribute],
- or [Project Creation Date],


you will get another **Select to append a SmartName** field in which you can select a required attribute.

See below some examples of SmartNames in Autaname Generation:

Project Autaname Generation


Prefix  

Counter Length


Suffix  

The result will be, for example: Chicago\_23.12.12\_0001\_printpromotion.

ArtiosCAD Design  Custom

Prefix\*  

Counter Length

Suffix  

Scope of the Counter

The result will be, for example: CAD\_0001\_printpromotion\_Chicago.

**Note:**

- The [EditField] SmartName can be used only in the Suffix and if required, the administrator can edit this field. If the [Edit Field] is empty, then it is not replaced by any text, but left blank.
- Ensure that you do not use square brackets [ ] for other fields. The system will take it as a SmartName.
- You can use several SmartNames if desired, or a combination of SmartNames and text.
- If a SmartName is selected and if it is empty or not found, the field will be blank in the Autaname.

## 3.24. Program Management

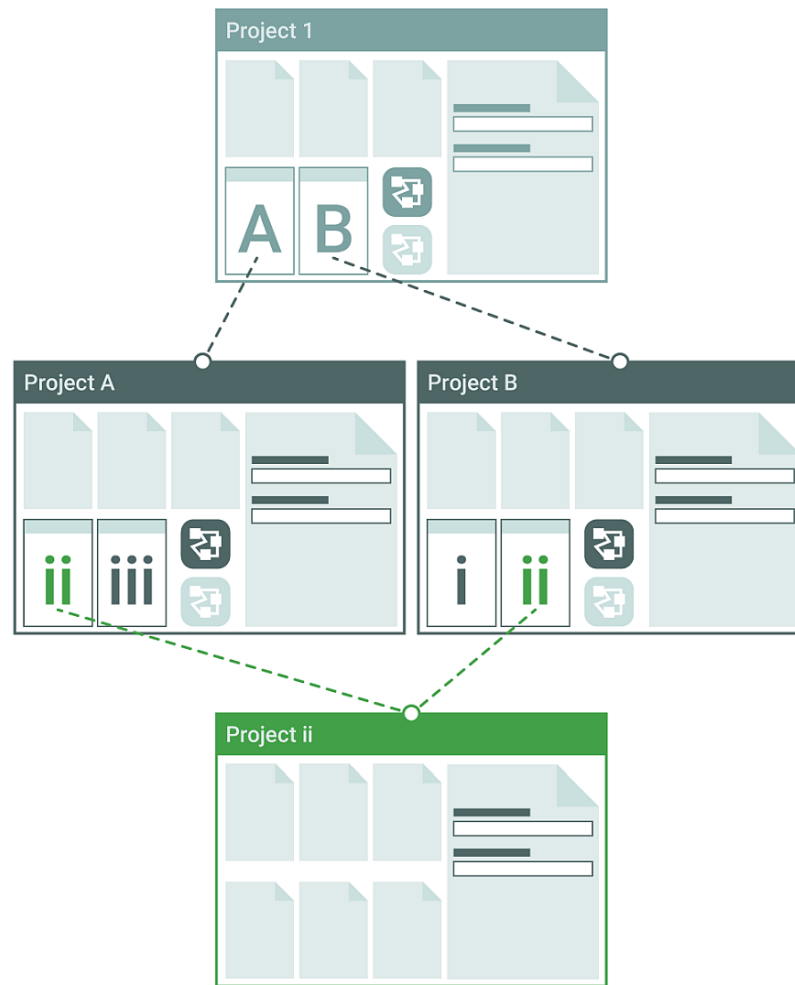
---

### 3.24.1. Introduction

Many Brand Owners are tackling large, complex packaging programs (campaigns) which span across packaging ideation to delivery of individual packaging to specific markets. Typically these efforts involve several parallel and sequential projects. While a packaging project involves dealing with a relatively short-term objective, a Packaging Program (Campaign) is much more complex and deals with several short-term and long term objectives and requires a large pool of resources.

Accomplishing a program's objectives involve planning and conducting a number of related projects, multiple work streams with their own requirements and planning, the results of which are components of the overall outcome.





### 3.24.2. Program Management Related Components

WebCenter has features to specify components, create a group of projects in a Program hierarchy and modify them as needed.

WebCenter Program management offers:

- [Component definition and approval](#)
- [Creation of Child Projects under the hood of a Program](#)
- [Attach Project Action in a Program](#) on page 497
- [Communication between the Program and its Projects.](#)
- Features to support multiple levels: for example, a Project/ Grouping /SKU/Component.
- Shared Projects and Components among different Programs
- A Program Overview with [drill-down](#) and [Dashboard](#). The program overview will provide the status and risk indicators.

## Definition and Approval of Components

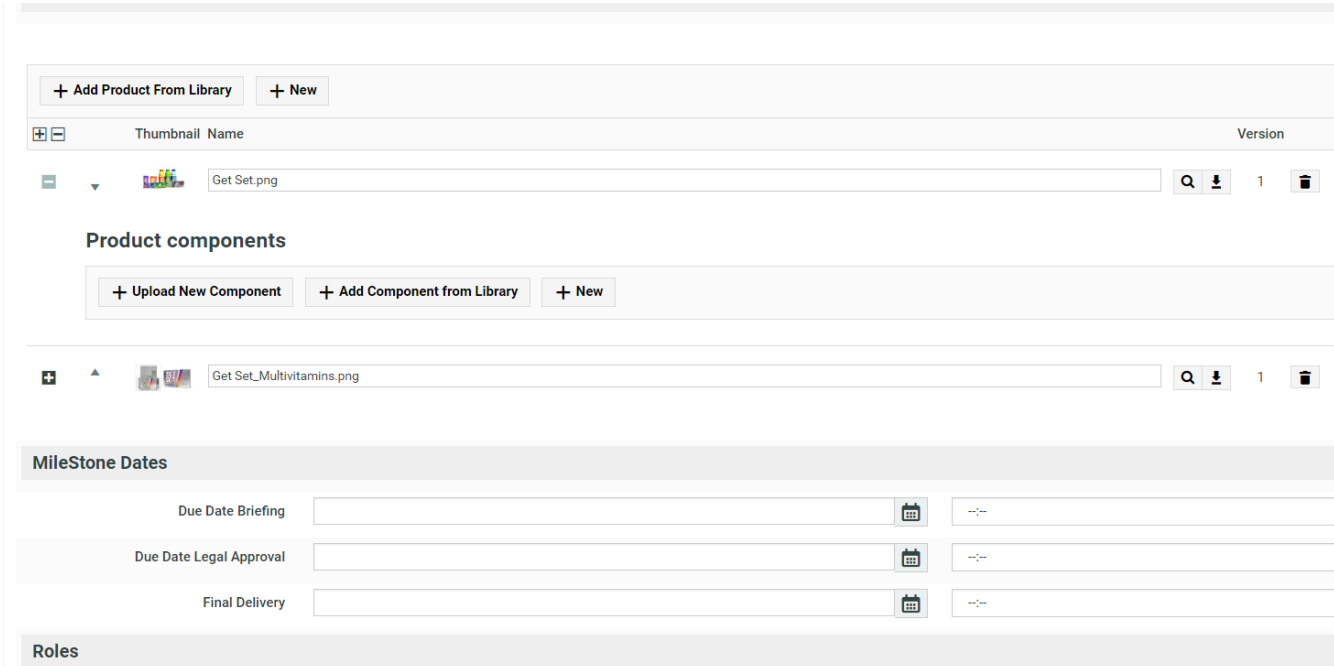
Program planning may require multiple iterations and produce multiple work products and components. As a first step, you need a Program (Parent Project) setup which describes the outline, rationale, launch criteria, important dates and involved regions and suppliers. The second part deals with the individual or child projects within the Program which are entirely dependent on the products and component planning.

### Defining Products and Components in the Briefing Phase

To start a Program with new Products and Components, the Program Manager can use a placeholder document ([Document Templates](#) on page 171). To define existing components, just refer to them as [Document References](#) on page 373 or copy them to the current scenario. You can source the components from existing libraries, contextual saved searches, or from a previous program.

If you have configured a [duplicate](#) action, the user can easily create a copy of the component (for example, variants) including its meta-data and document references values.

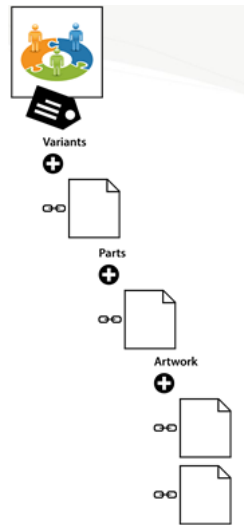
See the example below. The following structure can be built into your Program Template using its **Attribute Category's** document sources.



The screenshot displays a web interface for managing product and component data. At the top, there are two buttons: '+ Add Product From Library' and '+ New'. Below this is a table with columns for 'Thumbnail', 'Name', and 'Version'. One row is visible with a thumbnail icon, the name 'Get Set.png', and the version '1'. Below the table is a section titled 'Product components' with three buttons: '+ Upload New Component', '+ Add Component from Library', and '+ New'. Underneath, another row is shown with a thumbnail icon, the name 'Get Set\_Multivitamins.png', and the version '1'. The bottom section is titled 'MileStone Dates' and contains three rows of date pickers: 'Due Date Briefing', 'Due Date Legal Approval', and 'Final Delivery'. Each row has a calendar icon and a date field. Below this is a section titled 'Roles'.

For example, when you initiate a Program for multiple SKUs, you can use Document Templates for new SKUs. The Products can keep common approved Components as document references. Using the document reference table, you can:

- Define products and components along with their master-child relationships,
- Easily duplicate a Component with its meta-data
- Process them through an approval process if needed



See details about how to create Projects based on these documents in [Adding/Creating Projects in a Program](#) on page 493.

### Create Components

To streamline your Program's product and component definition, follow the steps below:

- Create an Attribute category for the Parent Project Template with document references and other Attributes.



**Note:** Read more about shared Attributes in: [Create a Child Project](#) on page 497.

- [Add Document References to the Program Template's Attribute Category.](#)
- [Define Document Sources for your Documents](#)
- [Define how these documents should appear in the Template](#)
- [Configure duplicate option in the rendering of the document references](#)

### Adding/Creating Projects in a Program

Once you have defined a Program or Parent Project with components, you can add multiple Child Projects as members in a few ways. You (as an admin user) need to configure **actions** in the menu for any of these options to become available.

You can:

- **Create Projects individually based on a Child Project Template.**

This provides an interactive way of creating a child Project from the Program context. If you have common Attributes configured in both the Program and Child Template, they can be shared between the Parent and Child. For example, Program's Attributes such as milestones set in the Program and Role setup.

*The administrator has to configure a Create Child action for a Program Manager.*

The Child Project Template can have Attributes and documents that are not shared with the Program.



**Note:** The Child Projects are independent WebCenter Projects that can have their own planning, workflows, folder structure etc.

Read more in: [Create a Child Project](#) on page 497.

- **Create Projects using a workflow.**

You can use workflow to create multiple Child Projects in one go. You can either add this step into a workflow or create a dedicated workflow action in Project details page.




**Tip:** Create a [custom workflow](#) action for Project detail and apply it to the Program Manager's menu. You can then select multiple documents and launch a workflow. You can use this more than once if you want to launch your Program in waves.

Project: Multi Vitamins\_Barrlia\_2017 02\_00001 Create Child Auto-Create Child Projects Attach Child Project(s)

**Brief Creation**

**Upload**

- Upload Multiple Documents
- Search
- View History



Manager: PROGRAM MANAGERS EMEA  
 Customer: Esko  
 Due On:  
 Modified: Feb 23, 2017  
 Description:

Project Status: On Track  
 # Children: 1  
 Nr Projects Completed: 0



All Child Docs 1 Child Projects 1 Project Information Tasks 5 Attributes Approval DocByPID 2 Characteristics More...

**Success!**  
 Created Workflow Task: Program Management - Create child projects\_1

Folders 2

- Project Documents 0
- Products 2

**View and Annotate** Compare in Viewer Download Delete Document(s) More...

Documents 2	Version	Approval	Uploaded	Tasks
<input type="checkbox"/>  Get Set.png (3.4MB)	1	Setup Approval Cycle	Feb 23, 2017 at 11:16 AM Keizer, Debbie (DEKE)	Complete Products list
<input checked="" type="checkbox"/>  Get Set_Blue Bottle.png (755.4KB)	1	Setup Approval Cycle	Feb 23, 2017 at 11:16 AM Keizer, Debbie (DEKE)	Complete Products list

- **Add an existing Project.**

You can add existing Projects to a Program. For example, you may want to use an approved SKU-project in a Program. The **Attach** action lets you select and add an existing Project as a child.

Read more details in: [Attach Project Action in a Program](#) on page 497

- **Create a Sibling Project.** Create sibling action allows you to copy the setup from your existing Child Project to create exact replicas or variants with slight modifications. For instance, after creating component Projects, you may see that you need an extra component with the same requirements.

It is possible to modify some Attributes after creation of a variant. Or you can disable copying of some elements by unchecking them. The options are the same as in [Create a Project Based on Another Project](#) on page 779

This action will be used when creating variants of the child project.



**Note:** All these actions are configurable and you can configure the actions that are most relevant in your Program-Project hierarchy.

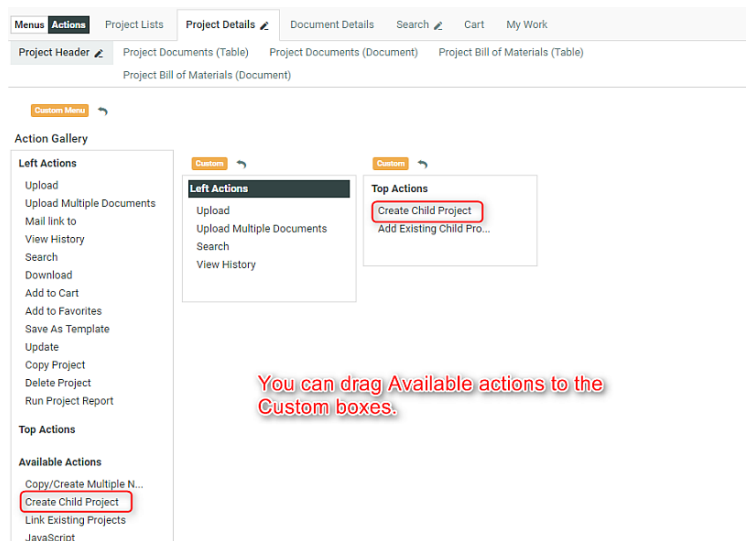
**Notes**

- You need **Change Property** rights (in both levels) to establish a relationship between parent and child.
- A project can have multiple children and can have multiple parents.
- All relationship changes are logged in the Project history.

**Configure Create Child Action in Program's Details**

As an Administrator user, you can customize the **Project Details** actions to include a **Create Child Project** action.

- Go to **Admin > Preferences > Menu > Actions > Project Details > Project Header**.
- Select the **Menu** you want to edit.
- From the **Action Gallery**, drag the **Create Child Project** to one of the **Custom** boxes.



Read more in: [How to Create a Custom Action Button](#) on page 121

- Edit the settings of this **Action**. You can customize this to suit your needs. See more in: [Action Settings](#) on page 118.

We recommend that you do the following optional steps:

- a) Select the users for whom you want to make this **Action Visible To**. In the example, this Action is set only for Project Managers.
- b) Select a Child Project Template. This will be the Template that will be loaded when a Project Manager (user) click on this action.



**Note:** If a Template is not specified in this action, your user can:

- either select a Template that is available in the system
- or create a Project without a Template

- c) Specify a Project Visibility characteristic.

1. [Create a specific Characteristic](#) for configuring a menu item. You can create characteristics for your custom menu items as well as the default ones.
2. Select the specific Characteristic in the **Project Visibility** field of the action. You can select this from the drop down list.

This menu item will appear in the **Project Details** page only if the specified **Characteristic** was assigned to the **project** or the **template**.

As an administrator, you can switch this on and off in the **Project Details > Characteristics** page.

- Save.

### Create a Child Project

To create a new Project as a child project of a Program, you (admin) can configure a **Create Child Action** in the Program. Once configured, the Program Manager and the Project Members will be to create Child Projects in your Program.

The Child Projects inherit the **attribute** values, **role** assignments and **company** information from the Program, and they can have their own set of **attributes** and **workflows**.

The Project creation uses the Template configured in the [menu](#).

For example, if the custom **action** links the template "Child Project Template", then this is used in creating the child Project.

The child inherits most of the setup from the Template except the values of:

- **Company / Location**
- **Attribute Values**
- **Role Assignment**



**Note:**

- The Attribute categories are inherited from the Template (used to create the child Project) and the **values** of the common Attributes (present in both Parent and Child Templates) will be inherited from the parent.



**Note:**

- If a common attribute has an empty value in the Parent, the value will be taken from the Child's template.

- Similarly, the Roles are taken from the Template but the assignment of the Roles will be taken from the Parent. If the Roles are not assigned in the parent, the assignment will be inherited from the Template.



**Caution:**

If the Parent and the child Project's template have different role assignments, the assignment of the parent project is taken.

- If a Template is not specified in this action, your user can:
  - select a Template that is available in the system.
  - or create a Project without a Template

You can have a document source with a SmartName search to point to the parent Project

### Attach Project Action in a Program

To add Projects to a Program, you need a Saved Search configured in your Program to list 'related' Projects.

The administrator can specify the Saved Search that should be used to search and find these possible child projects.

To create a custom **Link Existing Projects** Action in the Project Details (of the Program), follow the steps below:

1. Go to **Admin > Preferences > Menu > Actions > Project Details > Project Header**.
2. Select the **Menu** you want to edit.
3. From the **Action Gallery**, drag the **Link Existing Project** to one of the **Custom** boxes.  
This Action is available in Project Search Results by default.
4. Edit the settings of this **Action**. You can customize this to suit your needs. See more in: [Action Settings](#) on page 118.
  - a) Select the users for whom you want to make this **Action Visible To**. In the example, this Action is set only for Project Managers.
  - b) Select a **Saved Search**. This will be the displayed in the pop-up to select a Project.  
Specifying a Saved Search (for example, based on common attribute values) in the **Attach** action allows you to configure a pop-up dialog with the most relevant projects.
  - c) Optionally, specify a Project Visibility characteristic. Select the specific Characteristic in the **Project Visibility** field of the **action**.

This menu item will appear in the **Project Details** page only if the specified **Characteristic** was assigned to the **project** or the **template**.

As an administrator, you can switch this on and off in the **Project Details > Characteristics** page.

In the Program's details, you can use this Action to select Projects (from a Saved Search) and add to the Program.

### Add Sibling Projects

If you want to clone a Child Project within the context of a Program, configure the **Create Sibling Project** action in the Project details page.

You have to configure the action in the Child Project Details and make sure that it is applied to the Project Managers' menu.

The cloned sibling will be a copy of the child Project from which the action was started and it will also have the same Parent Project.

#### Notes

- If the child Project has multiple parents, the cloned Project inherits all the parents where the Project Manager has "change property" permissions.
- In the original parent project, an entry in the action history is added to indicate that the new project was added as a child.

#### Create a Sibling Project

1. Click the **Create Sibling** action button from a child Project of your Program.
2. In the **Copy setup from an Existing Project** pop-up, select what you want to copy (and deselect what you don't want to copy).



**Copy setup from an Existing Project**

- Copy Project Manager
- Copy Members
- Copy Approval Settings
- Copy Folders
  - Including Documents
  - Including Bill of Materials
- Copy Attributes
- Copy Characteristics
- Copy Tasks From Source Project ▼
- Copy Security Settings
- Copy Notifications
- Copy Discussions

Cancel
OK

For Tasks, you can choose to copy the **Tasks** from the original Project or from another project by typing in the template name. The default setting is to copy Tasks from the Project that is being copied.

Click **OK**.

3. Fill in the new project's [Details](#).
4. If desired, add [Documents](#) to the project.
5. Add [Members](#) to the project.
6. If the template has attributes defined, fill them in the [Attributes](#) section.
7. Click **Create**.

This brings you to the new project's details page.

Creating a project adds an event and this is stored in the Project History.

This event will add following information to the Project History:

- The Project/Template from which the new Project is created.
- The name.
- The Project Manager.
- The Salesperson (if there is any).
- The Customer (if there is any).
- The Location (if there is any).
- The description (if there is any).



**Note:** When a project is created from a template or an existing project, then only the changes (like deletion of attribute values or adding a new document) from the template or existing project is logged in the events.

## Remove Projects from a Program

You can configure and use [Detach](#) and **Delete** actions in a Program.

- If you want to remove child Projects **permanently** from the system, select them in the child Projects tab of a Parent Project and click **Delete** action.
- To remove some child Projects from a Parent, use the **Detach** action. This action removes them from the parent, but does not delete them from the system.

This is a configurable action that has to be set up in the Saved Search displaying child Projects. Read more in: [Detach Child Projects](#) on page 271.

## Detach Child Projects

You can configure **Detach Child Project(s)** operation in a Saved Search. Program Managers can use this in a contextual Saved Search configured in the Parent Project's details. The use case is that the Project or Program Manager can select existing Child Projects displayed in the search tab and detach them from the Parent Project.



**Note:** The action is only available to the users with **Change Permissions** of the parent and child project.

- Create a global [Saved Search](#) to search on child Projects. Enable the **Search Result Layout** option **Allow Detaching Child Projects**.
- Apply the Saved Search into the Project Details menu of the Parent Project Manager.
- To detach child Projects, go to the Child Projects tab with the saved search, select child Projects and click **Detach Child Project(s)**.

## Program Dashboard with a Drill-down View

You can also build different types of overview on on-going programs as a way to easily monitor your Program and Projects. The solution allows you to build overviews at all levels of your Program hierarchy.

The admin can create searches with any relevant criterion and use them in different levels of the Project drilldown.

To build a high level overview, use the following advanced the Saved Search features:

- [Drilldown](#)
- [Dashboard](#)

The drill-down feature allows you to quickly access the specific Projects or Components that require special attention.

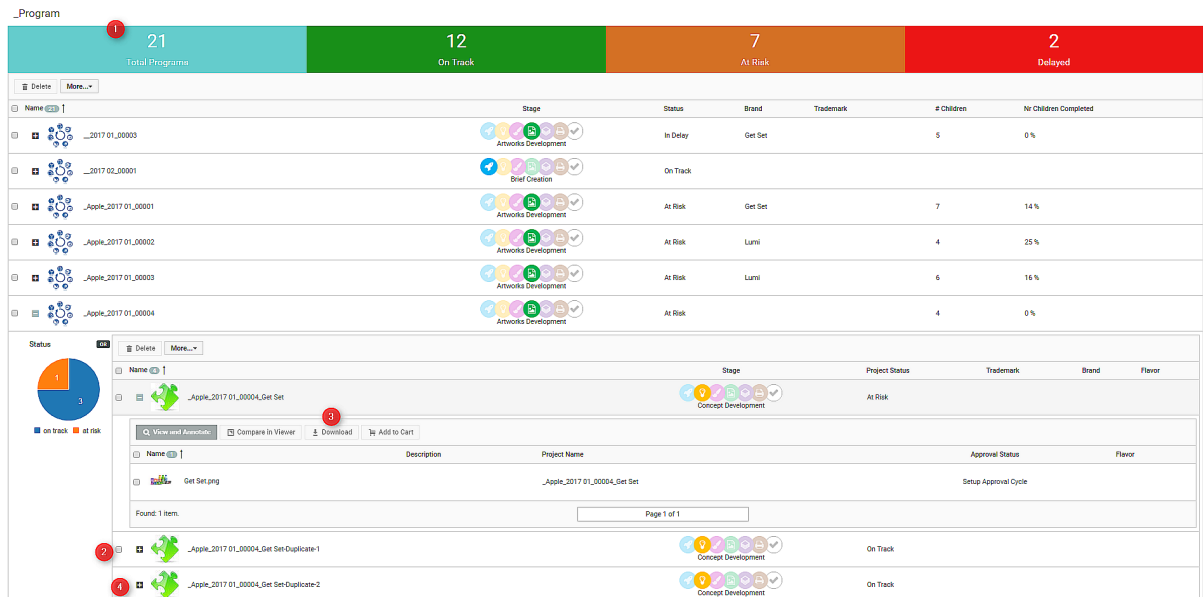
### Drilldowns

You can use Project search based **drilldowns** to set up a:

- Drilldown into all levels of Projects. This feature allows the Program Manager to explore project data beyond the overview. If you have a nested structure (Project / Grouping / SKU / Components) in your Program, an expand button lets you access the next level.
- Drilldown into Components (documents) or Tasks.

Read more in: [Configure a Drilldown Search](#) on page 255

The example screenshot gives an overview where the Program Manager can quickly zoom into Programs based on their status (which in turn is based on the status of their child Projects).



1. The parent Search with Programs. This example shows a [Search Results Dashboard](#) on page 256 with **counters**.
2. The second level of Drilldown executes the **Saved Search** specified in the parent search. This search contains a **Dashboard** with a **Facet Graph**. [Configure a Drilldown Search](#) on page 255
3. The third level of **Saved Search** with a **Document Search**.
4. The expand button to execute the drilldown.

### Dashboards

The interactive **dashboards** can be configured with:

- **Counters.**

You can, for example, build a diagnostic overview of the status of your Program using counters. You can, for example, show the Project Statuses in these traffic light counters ( at risk, in delay, or on track). With a simple click on one of these counters, you can zoom into the relevant Projects.

In the example above, a click on the “On Track” counter will display the search results for specified in the counter configuration. The status is only an example, you can build your counters based on any relevant Attribute that you may want to monitor. Each counter has it's own saved search and displays the count of the results.

Read more in: [Building a Search Based Counter](#) on page 260.

- **Charts** to visualize your Program data.

You can configure facet based Charts in dashboards and use them in your Program hierarchy to visually display the Program data. The Charts(based on facets) shows the distribution of values.

A simple click on a chart section(value) will refine the results. In the screenshot, the counters provide the most high level overview where as the first level drill-down displays a pie chart which shows the distribution based on Project Status.

### Overview from Programs and Projects

In addition to the overview of all Programs and their drilldowns, you can also configure contextual saved searches for your Parent Project Details menu. If you are a Program Manager working in a Program's details page, you may need direct access to the child Projects. Likewise, from each of the Child Project, there should be access to the parent or Program.

To configure this:

1. Create a [Saved Search for Parent Projects](#). Similarly, create another Saved Search for Child Projects and plug this into the Parent's Project Details menu.



**Tip:** Use SmartNames to use Saved Searches in the context of a Program or Project. If you set the **Parent Project** as the [Project id], your results will list all the Child projects of the current project. See more in: [SmartNames in Search](#) on page 249

2. Plug these searches into Project Details menu and apply it to the relevant users (Program Managers and Project Managers).

### Communication Channels-Rules

Since the projects are children or sub-projects of the overall program (campaign), there is a need for communication among all levels, program to projects, projects to program and among projects. The updates happening in a program have mutual consequences and therefore should be communicated in both ways. You may want to setup the following channels:

- Alert the parent or a related project about a new deliverable
- Alter the status of a related Project depending on another
- Notify Program when a child Project encounters change: a status update or metadata change.

### Rules in Programs and Projects

The Administrator of the system can configure "actions" "triggered" by an "event". These are **Rules** that can be specified in the Program/ Project's templates. Rules enable you to start tasks automatically based on events in your project.

The triggered actions will be implemented in the Program or Project specified in the attached "action" (**Task based Action**). You can use the JavaScript node in the Task to execute these actions.

The configuration of the Rules is based on Program/Project Template and therefore, once setup, can be reused (or exported) in future Programs.

See some examples of Task based Actions below:

- If a child Project's status changes to Overdue, change the status of the Program to At Risk
- Change attribute values in a Program based on the values in the child Project
- Calculate task overdue status every hour and send reminders

The JavaScript node allows you to enables you to update crucial parameters of related Projects. See details in the Workflow section.

### Configure Rules in a Project

#### What is a Rule?

You can configure a **Rule** to execute specific **Actions** based on one or more Trigger events. The Rule sets reside in Project Templates and will be applicable in all Projects created from them, including the

previously created ones. This administrator feature lets you establish communication between Child and Parent Projects or between any two Projects. See an example use case at the end of this chapter.



**Note:**

You need the **WebCenter Task Management Advanced** or **WebCenter Life Cycle Management** license to be able to define Rules.

To set up **Rules**, go to **Project Template > Configure > Rules Setup** tab.



**Note:** Although Rules are configured within a Project Template, you can create Rules that are triggered after the project is created from the template.

**Triggers**

A **Trigger** is an event that happens in the system (for example, the Child Project Status changes to **Completed**). A successful Trigger condition will execute a Task based **Action**.

You can specify multiple triggers and actions in a Rule. When one Trigger event(as specified in the Rule) happens, the system evaluates the Rule and executes the corresponding Action(s).

See the supported Triggers below:

- **Project Status Change:** The **Action** is executed when the Project Status changes.
- **Project Attribute Change:** The **Action** is executed when the specified Project Attribute changes. You can specify the attribute from a drop-down.
- **Project Due Date Change:** Any change in the Project Due Date will trigger the specified **Action**.
- **Date/Time Reached** trigger lets you define an exact time stamp to execute the Rule. When the server time passes the Trigger time, the Rule will be executed. There are 2 options:
  - Specific Date: the actions will be executed on the specific date and time
  - Date in Project + Offset: the actions will be executed on the selected Project Due Date or Date/ Time attribute plus or minus an offset of days and/or hours.



**Note:** The calculation is done in working days/hours.

**Actions**

- **Start Task:** This action launches a Task in the same Project where the Rule is configured. Specify the **Task** by selecting it from the drop-down.
- **Execute Javascript:** This action launches a specified **JavaScript Rule Action**. You can specify one from the **Javascript Rule Actions** configured in the system.

It is possible to configure multiple actions by clicking on the '+' sign. Use 'x' to remove existing actions.

**Example**

See the example of a Project Template's Rule below. This Rule gets executed when the specified Date/Time Reached.

**Edit Rule**

Rule Name\*

Enabled

Description

Order

When any of these Triggers occur

Date/Time Reached

Execute JavaScript

Warning: Calculating date/time triggers can potentially take a while. This rule will be applied in 4 projects.

The Javascript Rule Actions are configured in **Admin > Project Management > JavaScript Rule Actions**. See the example script below.

```

var children = API.getProject().getChildProjects(); if(children.length >
0){ var atRisk = false; var inDelay = false; for(var i = 0;
i<children.length; i++){ var child = children[i];
if(child.getStatusName() !=
'Completed'){ atRisk = true; } else if(child.getStatusName() ==
'Non-active'){
inDelay = true; } } if(atRisk){ API.getProject().getAttribute("mvbe
Campaign
State").setValue('At risk'); } else if(inDelay){
API.getProject().getAttribute("mvbe Campaign State").setValue('In
delay'); }
else { API.getProject().getAttribute("mvbe Campaign
State").setValue('On
schedule'); } }

```

Two days before the milestone, this Rule will get executed. Depending on the child Projects' statuses, the Program Project's status will be updated.

## 3.25. Color Trace Solution

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Color Trace structures the collection of color specifications, communicates it automatically to the supply chain and returns a scorecard of each job. Automation and standard procedures ensure that reporting is created with integrity, scoring the actual production against realistic specifications.

This solution is built by integrating the capabilities of software and cloud applications including Esko Cloud, PantoneLIVE, Color Pilot, WebCenter, WebCenter Connector (for Adobe Creative Cloud), Automation Engine, ColorCert and ColorCert ScoreCard Server. Most parts of this solution are automated with workflow tasks and has the flexibility to allow you to do custom updates as required.

Detailed description of WebCenter parts can be found in the following pages.

1. [Configure Cloud Connection in WebCenter](#)
2. [Configure Color in WebCenter](#)
3. [Import Deployment Package](#)
4. Workflow Nodes that perform various automated tasks for Color Trace in WebCenter
  - [Color Preflight](#)
  - [Create ColorCert Job](#)
  - [Save Document Colors in Attribute](#)
  - [Create Graphics Placeholders](#) on page 908

## 3.26. Packaging Content Management in WebCenter

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### 3.26.1. Introduction to Packaging Content Management in WebCenter

WebCenter Packaging Content Management offers a simplified platform for creating, translating, approving and managing text / copy assets.

The Packaging Content Management module offers:

- a repository / library for your text content with GS1 tagging
- re-use of your content across multiple projects
- support for a translation based or single language workflow.
- export to and import from industry standard formats
- ability to view and edit your text in the context of your artwork in the WebCenter Viewer.
- a complete approval workflow
- established content rights facilitating the ownership at different stages

### 3.26.2. Basic Concepts

## Text Document and Text Elements

### Text Content Document

The WebCenter Text Content Document (`WebCenter Copy Content`) is an XML file that contains:

- Text that goes on Artwork. This includes the master text and the translated versions.
- Approval states
- Clearly defined ownership rights
- Element Types

A Text Document is a WebCenter **Document Type** and can have:

- Revisioning
- The documents are housed in projects or libraries (for re-use)
- Attributes
- Can be streamed through a workflow
- Download rules
- Document references from other documents. For example an artwork can refer to various text content documents.
- Text Content Template. Read about it here [Text Document Template](#) on page 508

### Text Content Statement

A Text Content document has two elements: the Master text and its translated statements. When a Text statement is specified as the Master, it needs to be approved before approving the translation.

The Master and Translation Statements can be viewed together.

## Text Content / Table Ownership via Permissions

### Text Content Ownership

offers established ownership for different phases of the text and table creation and the approval process. You have four default content permissions:

- **Content Manager**
- **Editor**
- **Approver**
- **Add Language**

These permissions, when mapped to the WebCenter roles, allows their assignees to perform specific functions on the document.





**Note:**

- To configure these permissions, the project manager needs to assign at least the **Content Manager** rights to a relevant Role.  
For example, you can configure a **Role, Marketing** to have the **Content Manager** function.
- The Content Manager can then activate the **Editor, Approver** and **Add Language** permissions by assigning them to relevant WebCenter roles.  
If you do not assign a role to a specific permission, the specific permission will remain inactive for the document.
- The permissions are set at each text/table document (.wcc or .wtc ) level and will be passed on along with the document and its versions when copied or moved.
- It is not possible to add custom permissions.

**Four Types of Permissions**

**1. CONTENT MANAGER:**

The WebCenter Role with this permission facilitates the entire content management process to ensure accuracy and compliance. For example, the role Marketing could have this permission where the Marketing has the responsibility of the packaging content. The Content Manager will manage the Master and Translated statements.



**Note:** The Content Manager Role is not associated with any specific language.

This role will manage all the permissions and the settings for the current document.



**Note:** Content Manager Role cannot act as an Editor or Approver unless this permission is granted to the same role.

**2. EDITOR**

The Content Manager typically assigns this right to the dedicated roles who will create, edit, revise or translate the text. This can be assigned per language.

An Editor Role (for example, a Translator) can edit when a document is in the **Draft** state, not in **Signed-Off** or **Pending Sign-off** state.

If the Editor also has **Approver** permission, then the documents are directly moved to **Approved** state instead of pending sign off.



**Note:**







































- The **Content Manager Role** has to configure the list of translation languages to make use of multiple language based **Editor** permissions.
- You can configure **Roles** for all languages to which the content should be translated and grant them the **Editor** permission.

**3. APPROVER:** A **Role** with this permission can approve the text content. This permission can also be configured per language. The approver puts the Text Statement to **Signed-Off** or **Rejected** state.

**4. ADD LANGUAGE:**

Any user with **Add Language** permission can add language to a text or table content document. The users can be assigned with permission to add only specific languages.

**Manage Permissions**

Content Permission 	Language	Role	Assignee(s)
CONTENT MANAGER		 PCM_CONTENT MANAGER	 MRJN
EDITOR	 English - International	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 English - United States	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 Dutch - Belgium	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 French - France	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 English - International	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 English - United States	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 Dutch - Belgium	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 French - France	 PCM_CONTENT MANAGER	 MRJN
ADD LANGUAGE	 English - International	 PCM_LEGAL	 MRJN  MRJN_USR2
ADD LANGUAGE	 Dutch - Belgium	 PCM_TECHNICAL	 MRJN  MRJN_USR3
ADD LANGUAGE	 French - France	 PCM_CONTENT MANAGER	 MRJN

**\_REQUESTOR Role**

To create new Text/Table Documents, edit, approve or to reuse content during the Project Creation phase, you need to grant the relevant permissions to the **\_REQUESTOR** role. You can give these permissions in the libraries of Text/Table Document Templates, or Projects with approved Documents.

**Delegation of Approvals in Text Content and Tables**

An user can delegate his WebCenter tasks to another user. The delegated user can perform all actions on behalf of the delegator. When the delegate approves text or table content, the password validation is done on the delegate's password.

When a user has logged in on behalf of another user, and approves any text or table content, the same can be viewed by clicking **Approval Info** in the ellipsis. Alternatively, it can also be viewed in the **Document > Action History**.

**Text Document Template**

**Text Document Template**

An Administrator or Project Manager can [create Text Document Templates](#) using which the users can generate new text documents.

You can create a Text Document Template with pre-configured:

- Element Type
- Master and Translation Languages
- Approval Setup

These templates can be later reused as Document Sources.



**Note:**

It is not possible to create Text Documents without configuring the **Document Templates** and **Document Sources**.

When configuring a text document reference for a **Task / Project Template**, you have the option to specify *document sources*. These are buttons that will allow you to create, or link, or copy or reference documents in their respective documents tables.

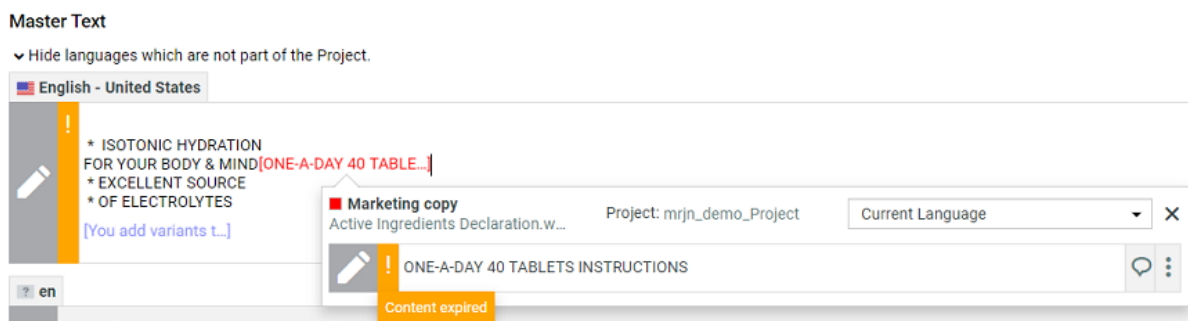
### Text Content Validity

Text statements may get obsolete over a period of time and to avoid using the redundant statements, set a validity date for the content. A warning message is given when the statements are no longer valid.

To set up the validity for Text content, add the Date time attribute **EXPIRY\_DATE** to the Attribute category of the content document.

A warning message is shown for a document as Expired, when either of

- the current document or
- it's smart reference at any level has expired.



For example, let us assume there are three documents named Doc1, Doc2, Doc3 and Doc1 references Doc2 and Doc2 reference Doc3 .

In this case, Doc1 is considered as expired, if any of the documents out of Doc1, or Doc2, or Doc3 is expired.

### Text Content Element Types

#### Text Content Element Type

WebCenter uses the **Element Types** concept and terminology from the GS1 standard to categorize the Text Documents. The Text Content Element Type categorizes the documents and maps to the WebCenter **Content Types**.

See the Element Type categorization below.

Header Information	Product Identity	Marketing Copy, Claims & Endorsements	Nominal Content	Global Warning & Caution Statements	Usage Instructions & Consumer Relations Info	Ingredients and Technical Facts	Distribution & Manufacturing	Patent, Trademark, Copyright, Legal	Various
Countries of Sales	Additional Product Variant Information	Content Claim	Gross Content Statement	Warning Statements	Recycle Statements	Ingredients Header	Distribution Statement	Patent Statement	Sweepstakes Offer
	Brand Name	Disclaimer	Net Content Statement	Allergy Warnings	Contact Information	Ingredients Declaration	Manufacturer Statement	Patent Numbers	Product Display Disclaimer
	Product Form	Marketing Claim	Package Count		Website	Active Ingredients Header	Importer Statement	Copyright Trademark Statement	Cross Sell
	Product or Statement of Identity	Marketing Copy			Disposal Information	Active Ingredients Declaration	Location of Origin	Under License Statement	Diet Exchanges
	Product Variant	Not for Sale Statement			Opening Instructions	Inactive Ingredients Header	Lot Number		Consumer Guarantee
	Sub Brand Name	Packaging Claim			Usage Instructions	Inactive Ingredients Declaration	Manufacturing Site		Recipe
		Pricing Statement			Storage Instructions	Drug Facts	Internal Package Identifier		
		Product Features			Assembly Instructions	Nutrition Facts	Packaging Statement		
		Promotional Copy			Preparation Instructions	Nutrition Claims	Regional Contact Information		
		Third Party Endorsements			Other Instructions	Registration Information	Local Contact Information		
		Violator				Quality Statements	Online Printer Header		
		Warrenty				Environmental Statements			
						Preservatives			
						Technical Facts			
						Shelf Life Statement			
						Product Use			

It is possible to add custom Element Types other than GS1 types. Read more in [Configure Element Types as a List](#) on page 518.

These are used when extracting Dynamic Content into WebCenter as well as exporting the artwork's GS1 XML.

### Text Content Translation

You can configure workflows to draft, translate and approve text in this module. To translate Text Elements (statements), in a translation software that uses XLIFF content (e.g. Trados or SDL), you can export them in XLIFF format. To do the review and final approval, you can import the translated content back in the same format.

You can either:

- automate the export-import process using the Workflow nodes
- or use [actions](#) to manually export an XLIFF file and later import it back.



**Note:**

XLIFF is an industry standard format used in the industry to exchange data in a translation project.

### Invariant Text Document

If translations are not required, the Content Manager can specify the Document as an invariant to avoid translating a Master statement. For example, a Text Document containing the Brand name.

You can set the **Invariant** status on a Text Document or Template.

Documents marked as invariant can have only one master language and are no longer considered as invariant if there are more than one master language



**Note:** Invariant content which existed prior to 18.1 and which has more than one master language will become non-invariant.

See: [Text Content Tab](#) on page 996

### Inherit Content

Whenever a new language is added to a Text content document, it is easy to follow the contents of either the master or translation language that already has the content. This could also prove very useful in cases where the two languages have mostly similar content like English-International and English US.

You can choose:

- **None** to follow language, but no language is selected by default at the text content element level for the newly added language.
- **Default** to follow the language in the language list. If no language is defined in the language list, then **None** is selected at the element level. Language lists for Master and Translation languages are configured initially when setting up the content management. To know more, read [Configure Master and Translation Language Lists and Attributes](#) on page 520
- **Always Master** to follow the current master language. Inheritance will be updated automatically when the master language is changed.
- **Master Language** to follow the master language in the element widget.



**Note:** Irrespective of the option chosen at the content configuration, you can still change the option at the element level.

You can choose to inherit only the SmartText content, when you want to inherit the content from another language. While inheriting, if the text in the source language contains plain text or SmartName, then the text in the target language are cleared but still follows the source language. List of allowed special characters are maintained in **SMART\_INHERIT\_WHITELIST**. Only the characters mentioned in this list are allowed with the smarttext.



**Note:** If the **SMART\_INHERIT\_WHITELIST** is not available, then the default whitelist is considered.

### Text Approval

The Packaging Content Management module offers separate approval processes for the Master and its translations. All the Approval information with regard to the Master and Translations stay within the Text or Table Content Document.



**Note:** This approval process is different from the regular WebCenter approval process.

The Approval process starts when a content Editor *starts approval* on a text statement or a table element.

When you have configured the right *permissions*, the users who has the **Approver** permission can perform the approval actions. To automate the approval, you can configure manual tasks in a workflow and assign them to the relevant **Roles**.

Once approved, the master and the translated text remain locked for the regular users.



**Note:** Only the Content Manager has the rights to change the text element to draft.

The text element can be in one of the following states:

- **Draft:** The initial state of the Text Document where the content is still being worked on.
- **Pending Sign-off:** When drafting is complete, and the status is ready for its approval cycle. An approver can review and approve or reject the document.
- **Signed-off:** When the approval cycle is completed and the content drafted in the document is 'Signed Off'.
- **Sign-off Rejected:** When the approval cycle is completed and the content drafted in the document is 'Rejected'.



**Note:** Approver will be requested to re- enter the password before approving or rejecting any text content document, provided the option is enabled by the Admin user.

### Approval Types

Content Managers can set up the **Approval Type** for Text Content Documents. There are three Approval Types:

- **Default:** Only one member has to approve. For example, if the Approver permission is assigned to two Roles, only one member (from any Role) has to approve.
- **One of role:** One member of each Approver Roles (assignees) has to approve to complete the signing off. In case a Role is assigned to several members (groups or users), any Group member or user from that Role can approve.
- **All of Role – One per Group :** At least one member from each Role-Group has to approve. If there is an individual User, then he or she has to approve as well.

## Dynamic Content in WebCenter

### Dynamic Content- Linking with Adobe® Illustrator®

Esko's Dynamic Content for Adobe® Illustrator® brings the power of XML-based automation to Adobe® Illustrator® on Mac and Windows.

Dynamic Content helps designers to be more efficient and win client confidence by minimizing the errors. By eliminating the process of copying and pasting the 'revised text', this minimises the errors.

In a typical case, the designer creates a design in **Adobe Illustrator** with "placeholders" for text content. These are tagged with appropriate GS1 Element Types (Content Types). You (brand owner) can process and approve the corresponding text content (with Element Type tagging) in WebCenter.

Dynamic Content can keep this link active and import the dynamically tagged content into Copy sheets. The edited and approved content can be exported back in GS1 format.

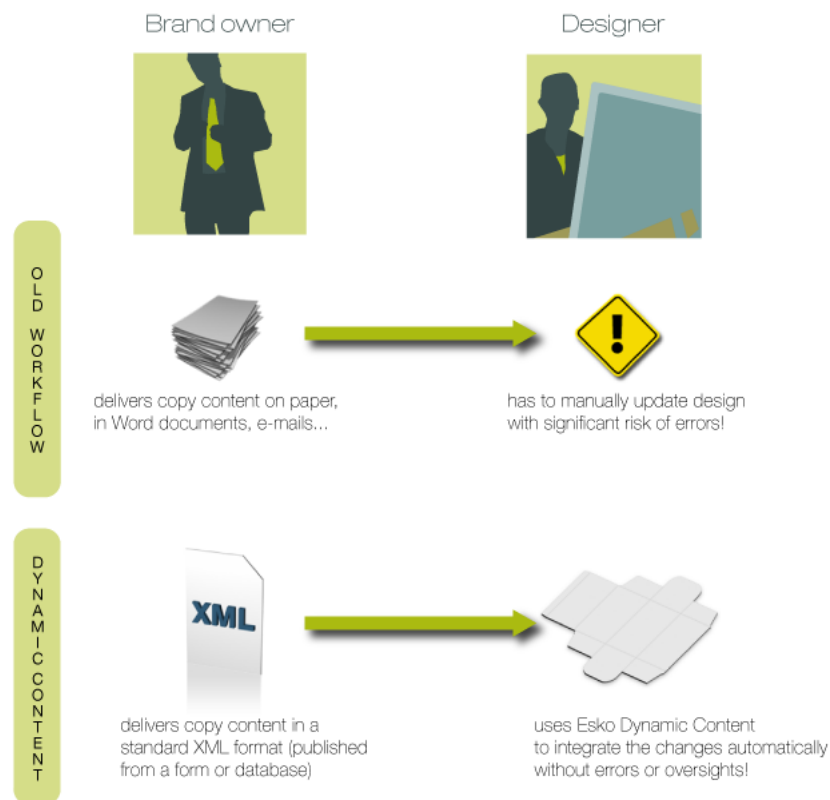
**Why Dynamic Content?**

Esko Dynamic Content allows packaging designers to add externally maintained content elements such as legal copy or nutritional information to a packaging design. This solves an increasingly common problem in the designer's day to day work: human error in copied content.

The ever growing number of stock keeping units that are brought onto the market by brand owners has resulted in an explosive growth in the **volume of artwork** that needs to be created for all the packaging of each unit. At the same time, the designs themselves become more and more complex in their competition for the consumer's attention.

Many designs share pieces of content. Some content is **mandatory**, required by regulatory instances such as the FDA, EMEA, or national bodies. Other content simply **recurs** on different variants of a shared design.

The end result is the same: an **increasing number of human interactions**, often of the "copy-paste" type, that at the same time increases the risk of errors slipping into the design. Errors in artwork are wasteful, generating rework, delays in product launches and sometimes even requiring product recalls.



**Benefits of Using Dynamic Content**

The Dynamic Content plug-in helps automate the insertion and updating of externally maintained content into a design. This prevents a number of common problems, and it saves valuable production time by eliminating repetitive manual tasks.

Some **typical problems prevented by a Dynamic Content workflow:**

- Typing errors;
- Wrong versions of copy text or barcodes are used in the final design;
- Cut-and-paste errors (e.g. when copy text is provided in a Microsoft Word document or PDF, and the designer has to manually copy this into the Illustrator document);
- Text overflows;
- Shared elements on design variants are not synchronised.

Because Dynamic Content allows you to keep this mandatory or shared content separated from the Illustrator document, it also **eliminates repetitive and time consuming updates:** simply modify the external XML file to update the text, barcodes, and nutrition tables on the design. Review cycles have never been this easy.

**A Typical Workflow in Dynamic Content**

A typical Dynamic Content-based design workflow includes an exchange of information between brand owners and designers. Often, the content to be used in a design will change multiple times during the design and production process, and it is in these cases that Dynamic Content will prove its worth.

A sample workflow for the use of Dynamic Content could be the following:

Stage	Description
1	The brand owner’s marketing department draws up the text that needs to appear on the packaging design. The text is entered into a PDF form or a content management system, which can export an XML file.
2	The brand owner sends the PDF form or XML file containing the text to the designer.
3	The designer produces a packaging design in Adobe Illustrator and links the text elements from the XML file to text objects in the Illustrator template. In the GS1 workflow, the designer can generate the "Response" XML and send it back to the brand owner. This Response message tells the brand owner what items were used in the artwork and how many times.
4	Later, the brand owner makes changes to the text, produces a new XML file and sends this to the designer.
5	The designer replaces the original XML file on his disk with the new version. Dynamic Content automatically detects the changes, and immediately alerts the designer. It clearly shows exactly what has changed, and where.
6	Based on the alerts displayed in Dynamic Content, the designer can very quickly accept automatically updated text, or make any required formatting changes. There is no need for copying, pasting, or any other manual and error-prone operations, and Dynamic Content alerts the designer to problems such as text overflow.
7	Thanks to Dynamic Content, stages 4 - 6 can occur repeatedly without losing time or introducing errors.



## XML Basics

XML stands for Extensible Markup Language, and it is a markup language similar to HTML. However, where HTML describes the layout of a web page, XML markup describes the contents and the structure of a document.

Below is an example of a basic XML document:

```
<?xml version="1.0" encoding="UTF-8"?>
<body>
<p> This is a very cool product! </p>
</body>
```

XML documents are often used to exchange data or textual content.

In the context of the Dynamic Content plug-in, XML is a useful format because:

- it separates content- the text itself- from layout and presentation, which will be defined by Illustrator text objects.
- it describes and contains the structure of the text that must be used on a design.

For more information on the XML format, please refer to the Appendix "An Introduction to XML".

## Flexible Master Language

Flexible Master Language functionality is introduced in the Package Content Management module of WebCenter 22.03 and allows more flexibility in setting the master language of a certain project or sheet.

Prior to WebCenter 22.03, the master language list could not hold the same languages as the translation language list. This meant that it was impossible for a language to be both a master language in one project and a translation language in another project. So, if a Latin-American market wanted to use "Spanish" as a master language in their project they had to name it "Spanish - Master" for it not to conflict with the "Spanish" language used by European markets as a translation. The big downside of this approach (aside from the extra complication) is that no content can be shared between the "Spanish - Master" language and the "Spanish" translation language.

Flexible Master Language functionality makes it possible to use the same language as a master language in one project and as a translation language in another. However, lifting this limitation has introduced some edge case scenarios. What should happen when a text statement has a master language that conflicts with a project's translation language? This can happen when you are copying statements or content sheets between projects. For example, a text statement that internally has "English" as a master language, but this statement is copied to a project that has "English" as a translation language? How should this be displayed to the user and can the user rectify this? Please refer to the [Convert Translation to Master](#) page for more information.

### 3.26.3. Essential Configuration Steps to enable Packaging Content Management

To setup the foundation of a working Content Management System follow the steps below:

1. Enable [the Text Content Document Type](#). Optionally also specify the [Language Editor and Approver Prefixes](#).
2. Configure Packaging Content Management related attributes. You can migrate the essential configuration into your WebCenter or do it as follows:
  - a) [Configure Element Types](#)
  - b) [Configure Master and Translation Language Lists and Attributes](#) on page 520
  - c) [Configure Text Reference Attributes](#) on page 519
  - d) [Create Text Document References with Rendering](#)
  - e) [Configure Language Index Attributes](#). These will be used when you Import Dynamic Content.
  - f) [How to Configure a Setup to Extract Images, Symbols and Graphics](#) on page 544

### Configure Packaging Content Management



**Note:** User needs the Packaging Content Management license to be able to use this module.



**Note:** Users with **Admin** credentials, can configure Packaging Content Management.

Navigate, **Configuration > PCM Deployment & Configuration**

**Packaging Content Management** page displays following three sections:

- **Configuration**
- **Global Permissions**
- **Local Permissions**

#### Configuration

When user selects **Configuration**, following fields are available:

- **Permissions** field is used to select the permission model to be followed by Text/Table Content documents, there are three options:
  - **Only use local permissions**  
 Selecting this option allows content documents to only use **Local Permissions**, that are defined in the text content document under **Permission** tab.
  - **Only use global permissions**  
 Selecting this option will allow only content documents to use **Global Permissions**, under **Permission** tab, that are defined in the system.
  - **Allow both global and local permissions**  
 Selecting this option will allow content documents to use either **Global Permissions** or **Local Permissions** depending on the setting in an individual Content document.  
  
**Global Permissions** will be selected by default, but the admin user can switch from **Global Permissions** to **Local Permissions** in the permission tab of a document by clicking **Manage Permissions** and selecting the **Use Local Permission** option.
- **Revision Raise** contains two options as:
  - **Never raise revision**  
 Select this if you do not wish to save master text changes as a new Revision.

- **Raise Revision when Master Text is updated**  
Select this to allow raising a revision, when master text is updated.
- **When Copying a Content Document** contains three options as:
  - **Keep Comments**  
User can choose this option to copy all the comments.
  - **Remove comments if state reverted to Draft**  
Comments are cleared if the state of the element is changed to draft, when the option is chosen.
  - **Remove Comments always**  
Select this option for clearing all the comments in the elements, while copying.



**Note:** Same behavior is replicated in workflow when documents are copied using Copy/ Move Document. Move document option does not respect this setting.

- **Auto Addition of Languages**  
Select whether or not you want to automatically [add missing languages](#) to documents in the document table.
- **Translation Service API Key**  
Enter the Translation Service API key that is required by the Translation Tool. This key will be used during [auto-translation](#) in the Documents Table.
- **Deployment package**  
You can click **Check for Update** to import all the required assets for the Packaging Content Management. Before importing, verify that you have the ListManager project available on the server.  
  
The Import Dependencies page lists all the required assets for packaging content management. You can choose to not update by unchecking the respective box. Verify if the ListManager Project is present in the Projects and Templates section of the page. If the ListManager Project is listed among the items that are already on the server, then uncheck the ListManager checkbox. If the project is listed among the items that will be imported, stop the import and make sure the project is available on the server.

### Local Permissions

#### Smart Role Names for Editors and Approvers

To work with language specific [Smart Role Naming](#) on page 527 specify your:

- **Language Editor Role Prefix/Suffix**
- **Language Approver Role Prefix/Suffix**
- **Add Language Role Prefix/Suffix**

The specified prefixes and suffixes are used automatically to create **Role names** specific for each language in the Role Mapping > Manage Permissions page.

If the **Roles** column in **Manage Permissions** is left blank, the values in the **Language Editor Role Prefix**, **Language Editor Role Suffix**, **Language Approver Role Prefix**, **Language Approver Role Suffix**, **Add Language Role Prefix**, and **Add Language Role Suffix** are used to calculate the role names for the Editor, Approver Text Content, and Add Language permissions.



**Note:** This setting is independent of the **Allow raising Document Revision when uploading a new Document Version** setting.

### Configure Element Types as a List

You can categorize the packaging content using the **Element Types** list in WebCenter. You can use the categorization from the GS1 / IPC standard or any other.



**Note:**

GS1 is an international non-profit association dedicated to the design and implementation of global standards and solutions. The GS1 system of standards is the most widely used one in the packaging supply chain standards system.

You can create a [WebCenter List](#) for configuring the **Element types**.



**Note:** Only Administrators can configure Lists.

- Create and upload your Excel (either .xls or .xlsx) document containing the element types to a project named [List Manager](#).

	A	B	C	D	E
1	ELEMENT_TYPES	HUMAN READABLE FORM	ELEMENT CATEGORY	PCM_ELEMENT_TY	COLOR
2	ACTIVE_INGREDIENTS_DECLARATION	Active ingredients declaration	Ingredients and Technical Facts	TECHNICAL	yellow
3	ACTIVE_INGREDIENTS_HEADER	Active ingredients header	Ingredients and Technical Facts	TECHNICAL	yellow
4	ADDITIONAL_PRODUCT_VARIANT_INFORMATION	Additional product variant information	Product Identity	MARKETING	red
5	ALLERGEN_STATEMENT	Allergen statement	Global Warning & Caution Statements	LEGAL	blue
6	ASSEMBLY_INSTRUCTIONS	Assembly instructions	Usage Instructions & Consumer Relations inf	MARKETING	red
7	BRAND_NAME	Brand name	Product Identity	MARKETING	red
8	CONSUMER_GUARANTEE	Consumer guarantee	Various	LEGAL	blue
9	CONSUMPTION_CONTEXT	Consumption context		MARKETING	red
10	CONTACT_INFORMATION	Contact information	Usage Instructions & Consumer Relations inf	MARKETING	red
11	CONTENT_CLAIM	Content claim	Marketing Copy, Claims & Endorsements	MARKETING	red
12	COPYRIGHT_TRADEMARK_STATEMENT	Copyright trademark statement	Patent, Trademark, Copyright, Legal	LEGAL	blue
13	CROSS_SELL	Cross sell	Various	LEGAL	blue
14	DECLARATION_CONTEXT_FOOTNOTE	Element type! Drop-down in the interface		Optional	Color used
15	DIET_EXCHANGES	Element type! Drop-down in the interface	Various	TECHNICAL	ID Low Thumbnails
16	DISCLAIMER	Disclaimer	Marketing Copy, Claims & Endorsements	LEGAL	blue
17	DISPOSAL_INFORMATION	Disposal information	Usage Instructions & Consumer Relations inf	MARKETING	red
18	DISTRIBUTION_STATEMENT	Distribution statement	Distribution and Manufacturing	TECHNICAL	yellow
19	DRUG_FACTS	Drug facts	Ingredients and Technical Facts	TECHNICAL	yellow
20	ENVIRONMENT_STATEMENTS	Environment statements	Ingredients and Technical Facts	TECHNICAL	yellow
21	FUNCTIONAL_NAME	Functional name	Product Identity	MARKETING	red
22	GROSS_CONTENT_STATEMENT	Gross content statement	Nominal Content	TECHNICAL	yellow
23	ICON_VARIABLE_TEXT	Icon variable text	Various	MARKETING	red
24	IMPORTER_STATEMENT	Importer statement	Distribution and Manufacturing	TECHNICAL	yellow
25	INACTIVE_INGREDIENTS_DECLARATION	Inactive ingredients declaration	Ingredients and Technical Facts	TECHNICAL	yellow

a) Add the following mandatory columns to your worksheet:

- ELEMENT\_TYPES should contain the Element Type tags.
- HUMAN\_READABLE\_FORM with the Element Type names.



**Note:** This will appear as the Element Type drop-down in the interface. For example, in the [Text Document Details](#) on page 528 page.

- b) Optionally, you can add an ELEMENT\_CATEGORY column. This column can contain the categories used to group Element Types.
- c) Optionally, add the PCM\_ELEMENT\_TYPE\_RESPONSIBLE (this name can be different) column. This is column can have the Role names who would be responsible a particular Element Type. For example, a role Legal would have the responsibility for the Element Type Consumer Guarantee.



**Tip:** In your Workflow configuration, you can look up in this list to find the Role matching a particular Element Type. Read more in the Workflow section.

- d) Add the `Color` column. Use this to specify the color coding for the Element Types.  
If you have specified `Red` corresponding to `Brand Name`, your Text Document Thumbnail will be color coded as Red.
- [Create](#) a List named `ELEMENT_TYPES`.
- When configured, the **Element Types** will appear as a drop down in Text Document Details page.
- If the Element Types are color coded using the `Color` column, you will see Text Document Thumbnails in the system.

### Configure Thumbnails for Text Documents

When you upload a **Text Content Document**, a thumbnail with it's name gets generated according to the color code specified in the [Element Types](#) list.

If you update the color code of an Element Type in the List, the existing thumbnails will not be updated immediately. Update the document's Element Type to generate a new thumbnail.

If color code column is not defined, thumbnail will not have color code in it, but still Element Type will be displayed.



**Note:**

If the Element Type name is longer than the thumbnail, it is truncated to fit in the thumbnail size.



**Note:**

Supported colors: green, blue, red, yellow, white, black, orange, cyan, magenta, pink, light gray and dark gray. RGB colors (`rgb(x,x,x)`) are also accepted in the **Element Types** list.

### Configure Text Reference Attributes

You need to create two attributes which are used in mapping the Dynamic Content data. When Dynamic Content is imported, these are used to map the location and the instance sequence of the text. These are later used in exporting the Content into GS1 format as well.



**Note:** These are not visible to your users.

1. Create the following **Attributes**.
  - `INSTANCE_SEQUENCE` This will be a reference attribute (of a text document reference) keeps the instance sequence (a number) of the Text Statements.
  - `LOCATION_LIST` This reference attribute stores the specific location of the Text Element on the artwork for each dynamic Text Element.
  - `EXPECTED_NUMBER_OF_OCCURRENCES` This reference attribute store the number of expected occurrences of a particular content( image, text, table, Barcode in an artwork).
2. Create an **Attribute Category** which will be used as a **Reference Category** when configuring [Text Document References \(Copy Sheet\)](#).



**Note:** Specify the **Visibility** as **Hidden (Keep Values)**.

[Creating a Copy Sheet](#) on page 398

When you are viewing an artwork document in the Viewer, the Text Documents are highlighted when you click on them. The reference property Location\_List is used in rendering this feature.

Add this reference category to Text Document attributes used in Copy Sheets.

### Configure Master and Translation Language Lists and Attributes

You have to configure Master and Translation Lists for setting up the Packaging Content Management module.

The master and translation languages can be added as [WebCenter Lists](#) and your users can easily access and select the appropriate languages in the Attributes tab.



**Note:** Only Administrators can configure Lists.

1. Create and upload your Excel (either .xls or .xlsx) documents to the [ListManager](#) project.
  - a) Create the Master Language document in Excel. Add the following mandatory columns to your worksheet:
    - For example, English- United States.
    - LANGUAGE\_CODE: Specify the code of the languages that you want to include
    - DESCRIPTOR: Describe the language code you specified
    - FLAG\_FILENAME: Specify the name of the image file which has the flag of the country the language is used. For example fr-ca will have Canadian flag whereas fr-fr will have French flag.
    - LANGUAGE\_INDEX: 1, 2, etc...
    - DIRECTION: Specify if the language is written right to left or left to right. This ensures that the cursor is placed appropriately.
    - FONT\_FAMILY : Specify the font family that you want to use for the language



**Note:** Specify the name of the font family that you want to add as a customized font for the PCM. To add a customized font in Packaging Content Management, follow the steps given in the KB article <https://wiki.esko.com/display/KBA/KB196429311%3A+WebCenter+-+How+to+support+custom+fonts+and+languages>.

And also add the fonts in the application server pcm/TablePreviews/custom/fonts folder location.

- [LANGUAGE\\_INDEX](#): This is the corresponding field to locale Sequence tag in GS1 XML standard. This is used in **Import Dynamic Content** node to map the GS1 XML coming from Dynamic Content.



**Note:**

When you add a language code in these Lists, a corresponding flag image will be available for you in the interface. The flags are installed in the WebCenter\WebServer\tomcat\webapps\WebCenter\_Inst\images\country\_flags folder. When you add a custom language to the Lists, place a corresponding flag image in this folder.

The flags are 16x16 in size. The subfolder WebCenter\WebServer\tomcat\webapps\WebCenter\_Inst\images\country\_flags\big contains same flags in bigger (32x32) sizes.

b) Create the Translation Language document in Excel. Add the following mandatory columns specified in the Master text Language excel sheet.

2. **Create** Lists named MASTER\_TEXT\_LANGUAGE and TRANSLATION\_TEXT\_LANGUAGE.

**General list information**

List Name\* MASTER\_TEXT\_LANGUAGE

Description

**Input Source Properties**

Document MasterLanguageList.xlsx

Sheet Name Sheet1

Log File MASTER\_TEXT\_LANGUAGE\_11.log

Flush existing list data before updating the List. The existing data will be replaced by the new data!

Database Username and password are required when deleting data from List

**List Properties**

Input Columns	List Columns	Unique Identifier
LANGUAGE_CODE	LANGUAGE_CODE	<input type="checkbox"/>
DESCRIPTOR	DESCRIPTOR	<input type="checkbox"/>
FLAG_FILENAME	FLAG_FILENAME	<input type="checkbox"/>
LANGUAGE_INDEX	LANGUAGE_INDEX	<input type="checkbox"/>
DIRECTION	DIRECTION	<input type="checkbox"/>
FONT_FAMILY	FONT_FAMILY	<input type="checkbox"/>

**Return** **Show List Data** **Delete List Data** **Delete List**

3. Create the following attributes in **Admin > Attributes > Attributes**

- MASTER\_TEXT\_LANGUAGE
- TRANSLATION\_TEXT\_LANGUAGE

These attributes define the languages that are used by the Text Content as part of the Project's Attribute Category.

4. Create an **Attribute Category** and add the language attributes to it.
5. **Restrict Values** to the language lists. And specify the **Column** as **Descriptor**.

To select more than one language, you need to enable **Allow Multiple Values**.

These attributes has to be added to the Project's or Templates **Attribute Category**. The User can then select the Master Language and Translation Languages according to that Project's needs.

### Configure Language Index Attributes

To map the **Language Index (Locale Index)** from Dynamic Content, you can create attributes. These attributes are needed when you configure *Import Dynamic Content* node in the workflow.



**Note:** Without setting these attributes, the import node will use default indices from the *language lists*. We recommend that you create these attributes to be able to specify the language indices for each project.

- Create the language attributes and add them to the Attribute Category.

See the example screen shot:

Remove Grid Layout

[Title]Select the artwork languages.	
[Spacer]	
PCM Artwork Language 1	PCM Artwork Language 6
PCM Artwork Language 2	PCM Artwork Language 7
PCM Artwork Language 3	PCM Artwork Language 8
PCM Artwork Language 4	PCM Artwork Language 9
PCM Artwork Language 5	PCM Artwork Language 1
[Spacer]	
[Title]Metadata	
[Spacer]	
PCM Market	PCM Brand

Details for selected cell:

Attribute	PCM Artwork Language 1
Attribute Type:	Text
Label:	Label Text: Artwork Language 1
	Label: <input type="text"/>
	Image: <input type="text"/>
	Position: Left ▾
	Custom Unit Label: <input type="text"/>
Span Columns:	1 ▾
Style:	Field ▾ Add Style Edit Style Delete Style ⓘ
Visibility:	Editable ▾ Add Rule ⓘ
Restrict Values: ⓘ	List: ALL_LANGUAGES_1 ▾ Copy List ⓘ
	Column: DESCRIPTOR ▾ Configure List ⓘ
	Rendering: Dropdown ▾ ⓘ
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/



- Configure **Restrict Values** as a Language List to get the attribute selector drop down listing all languages.  
Use this in the Template that is used to import Dynamic Content and the workflow step [Import Dynamic Text](#) on page 922.

### 3.26.4. Managing Text Permissions

Ensure that:

- you have invited the right **Roles** in your **Project** or **Template** with the Text document.
- you have added the Master and Translation Languages to the Project's Attribute Category to configure Language specific Editor and Approver permissions. It is important to do role mapping in a [smart way](#).
- you have enabled the right [Preferences](#).

If you are a **Project Manager / Admin**, you can manage and assign content permissions.



**Note:**

A user without any of these permissions can only view (depending on the view permissions) the text content documents.

1. To manage Permissions, go to the **Document details > Text Information > Permissions**.

When you click on a Text Content Document Type icon, the **Document Details** will have the **Text Information** tab with the following sub-tabs:

- [Content](#)
- [Permissions](#)
- [Compare](#)

2. The **Manage Permissions** is only applicable when document is using **Local Permission**.
3. The checkbox **Use Local Permissions** is shown only when the Global permissions configuration is set to **Allow both global and local permissions**.

Text Information | Document Information | Approval | Action History | Annotations | Projects | Shared Link | Attributes

Content | **Permissions** | Compare

### Local Permissions

The document is configured to override the global permissions and use local permissions.

**Manage Permissions**

Content Permission 	Language	Role
CONTENT MANAGER		 CONTENT MANAGER
EDITOR	 Dutch - Belgium	 EDITOR
EDITOR	 French - France	 EDITOR
APPROVER	 Dutch - Belgium	 APPROVER
APPROVER	 French - France	 APPROVER
ADD LANGUAGE	 Dutch - Belgium	 ADD LANGUAGE
ADD LANGUAGE	 French - France	 ADD LANGUAGE

4. Choose the **Content Permission** from the drop-down listing:
  - **Content Manager**
  - **Editor**
  - **Approver**
  - **Add Language**
5. For the Content Managers permission, define the appropriate **Role**.  
Read about the permissions below:

**1. CONTENT MANAGER:**

The WebCenter Role with this permission facilitates the entire content management process to ensure accuracy and compliance. For example, the role Marketing could have this permission where the Marketing has the responsibility of the packaging content. The Content Manager will manage the Master and Translated statements.



**Note:** The Content Manager Role is not associated with any specific language.

This role will manage all the permissions and the settings for the current document.



**Note:** Content Manager Role cannot act as an Editor or Approver unless this permission is granted to the same role.

## 2. EDITOR

The Content Manager typically assigns this right to the dedicated roles who will create, edit, revise or translate the text. This can be assigned per language.

An Editor Role (for example, a Translator) can edit when a document is in the **Draft** state, not in **Signed-Off** or **Pending Sign-off** state.

If the Editor also has **Approver** permission, then the documents are directly moved to **Approved** state instead of pending sign off.



**Note:**

- The **Content Manager Role** has to configure the list of translation languages to make use of multiple language based **Editor** permissions.
- You can configure **Roles** for all languages to which the content should be translated and grant them the **Editor** permission.

**3. APPROVER:** A **Role** with this permission can approve the text content. This permission can also be configured per language. The approver puts the Text Statement to **Signed-Off** or **Rejected** state.

## 4. ADD LANGUAGE:

Any user with **Add Language** permission can add language to a text or table content document. The users can be assigned with permission to add only specific languages.

**Manage Permissions**

Content Permission ⓘ	Language	Role	Assignee(s)
CONTENT MANAGER		PCM_CONTENT MANAGER	MRJN
EDITOR	English - International	PCM_CONTENT MANAGER	MRJN
EDITOR	English - United States	PCM_CONTENT MANAGER	MRJN
EDITOR	Dutch - Belgium	PCM_CONTENT MANAGER	MRJN
EDITOR	French - France	PCM_CONTENT MANAGER	MRJN
APPROVER	English - International	PCM_CONTENT MANAGER	MRJN
APPROVER	English - United States	PCM_CONTENT MANAGER	MRJN
APPROVER	Dutch - Belgium	PCM_CONTENT MANAGER	MRJN
APPROVER	French - France	PCM_CONTENT MANAGER	MRJN
ADD LANGUAGE	English - International	PCM_LEGAL	MRJN MRJN_USR2
ADD LANGUAGE	Dutch - Belgium	PCM_TECHNICAL	MRJN MRJN_USR3
ADD LANGUAGE	French - France	PCM_CONTENT MANAGER	MRJN






















**Note:** You may choose to give more than one permission to a Role. For example, the Content Manager can have Editor and Add Language permissions as well.

- Define the **Editor** permission and assign it to a role. Select the corresponding **Language** from the drop-down.

You can automatically create **Editor** and **Approver** Roles for all languages in one go. Read about [Smart Role Naming](#) on page 527. To do this for the editor permission:

- Ensure that the **Admin** preference section has the right Prefixes. Read [here](#).
- Next to the **Editor** permission, select **All Other Languages**.

**Manage Permissions**

Content Permission 	Language	Role
EDITOR	 <b>English - International</b>	 LANGUAGE ENGLISH - INTERNATIONAL EDITOR
EDITOR	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM EDITOR
EDITOR	 French - France	 LANGUAGE FRENCH - FRANCE EDITOR
APPROVER	 <b>English - International</b>	 LANGUAGE ENGLISH - INTERNATIONAL APPROVER
APPROVER	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM APPROVER
APPROVER	 French - France	 LANGUAGE FRENCH - FRANCE APPROVER
ADD LANGUAGE	 <b>English - International</b>	 LANGUAGE ENGLISH - INTERNATIONAL ADD
ADD LANGUAGE	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM ADD
ADD LANGUAGE	 French - France	 LANGUAGE FRENCH - FRANCE ADD


**Prefix and Suffix in Role Names**


- To edit Content Permissions, click **Manage Permissions** and edit or change the assignment of a permission.
  - The **Permissions** page will list all the Content Permissions, respective languages, Roles and their assignees (individual or Group).
    - The Roles will be clickable if they exist in the system and are invited to the Project.
    - The Master Language of the Project will be highlighted in bold.



If you would like to give content editing and approving permission during Project Creation, assign Editor and Approver permission to the `_REQUESTOR` role.

For example, if you assign Editor permission to the `_REQUESTOR` role, the Editor can draft the text during project creation.

EDITOR

 **English - United States**

 `_REQUESTOR`

 BO, Manager (BO\_MANAGER)  
 Keizer, Debbie (DEKE)






















**Warning:** During a Project's creation, you can assign another user as the Requester. If this happens, the permissions defined for the `_REQUESTOR` role does not get transferred. In this scenario, some updates done during the Project creation may be lost.

**Smart Role Naming**

When your content workflow contains translations into different languages, you can have **Editor** and **Approver** permissions assigned to **Roles** (text authors/editors and approvers such as legal or marketing) associated with these languages. To automate the naming of such Roles, you can specify prefixes for these placeholder **Roles**.

Manage Permissions

Content Permission 	Language	Role
EDITOR	 English - International	 LANGUAGE ENGLISH - INTERNATIONAL EDITOR
EDITOR	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM EDITOR
EDITOR	 French - France	 LANGUAGE FRENCH - FRANCE EDITOR
APPROVER	 English - International	 <b>Prefix and Suffix in Role Names</b>
APPROVER	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM APPROVER
APPROVER	 French - France	 LANGUAGE FRENCH - FRANCE APPROVER
ADD LANGUAGE	 English - International	 LANGUAGE ENGLISH - INTERNATIONAL ADD
ADD LANGUAGE	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM ADD
ADD LANGUAGE	 French - France	 LANGUAGE FRENCH - FRANCE ADD

The names of the Roles will have the specified **prefix** and **Suffix** (In the example screenshot, Language Editor) and the respective language code.

Text Document Details

When you click on a Text Content Document Type icon, the **Document Details** will have the **Text Information** tab with the following sub-tabs:

- [Content](#)
- [Permissions](#)
- [Compare](#)

The screenshot displays the 'Text Information' tab in the ESKO WebCenter. At the top, there is a navigation bar with tabs for 'Text Information', 'Document Information', 'Approval', 'Action History', 'Annotations', 'Projects', 'Attributes', 'References', 'Characteristics', 'Discussions', and 'Test doc view'. Below this, there are sub-tabs for 'Content', 'Role Mapping', and 'Compare'. The main content area shows 'Preparation instructions' with Master (M) and Translation (T) languages set to English. Under 'Master Text', there are three entries for 'English - International', 'English - United States', and 'English - United States'. Each entry contains text with various formatting tags like `langnew` and `lang`. Below the master text, there are 'Translations' for 'Dutch - Belgium' and 'French - France'. A link at the bottom says '> Show languages which are not part of the Project.'

### 3.26.5. Creating a New Text Document

An Administrator or Project Manager can [create Text Document Templates](#) using which the users can generate new text documents.



**Note:**

It is not possible to create Text Documents without configuring the **Document Templates** and **Document Sources**.

When configuring a text document reference for a **Task / Project Template**, you have the option to specify [document sources](#). These are buttons that will allow you to create, or link, or copy or reference documents in their respective documents tables.

1. Create a **Project** or **Template** to host all your **Text Templates** ( a Text Document Template library).
2. To create text document templates:
  - a) Upload Text Documents (.wcc) into this Project or Template. We recommend that you create Templates per Element Type. This allows the users to create a new Text Document for each of the Element Type.  
Make sure that you have enabled the text document type in the [Preferences section](#).
  - b) Go to **Document Details > Text Information > Text Content** tab of the Template and add the corresponding Element Type to the template.
  - c) Also, specify Master and Translation languages for each template.
  - d) Specify the **Approval Type** as:
    - **Default:** Even if one user approves, the document is approved.

- **One of Role:** At least one user per role assigned should approve the text content document
  - **All of Role - One per Group:** From every group, at least one user should approve
- e) In the **Role Mapping** tab, assign the [Content Permissions](#).
- f) Repeat for all the text document templates you want to create.



**Note:**

- New documents created from this document template will inherit the settings.
- The approval cycle is different from other document Types. Read more about Text Document Approval in our KB.

3. Create a Project Template for each kind of project that may be required by Project Managers.
4. In each of these Templates **configure** the **Document Library** as follows:
  - a) In the **Project Details** page, **Configure > Document Templates**.
  - b) Select **Project** or Template and select your document template library from the drop-down.

- c) Click **Save**.

When creating a Project from this Template, the user can click **New** and select a **Text Document Template** from the Templates library to create new documents.

5. Create an Attribute Category for your Template.
  - a) Add [Language Attributes](#) and restrict them to Language Lists.
  - b) You need Document Reference Attributes. Create and add them to this Category.
6. To allow the user to create new documents from the Copy sheet (document references) attached to this template, configure [document sources](#) for the individual reference attributes.



**Tip:** Use a Saved Search configured to search for Table Templates as a document source for better user experience. You can, for example, add a Search Panel.

The user will be able to add **New** Text Documents from **Template > Attributes** section when creating a Project.



PCM Text Library Update Show Details

▼ Details

Note: The name of this Project will be created automatically.

Requestor  
Me

Description

▼ New / Update

Master Text Language(s) English - United States

Translation Language(s) --Please Select--

Document Sources configured with a Template

+ New + Update

### 3.26.6. Creating a Copy Sheet

Copy sheet is a term used to describe all the content that is attached to a particular artwork or printed item. A copy sheet containing aggregated content helps you to:

- validate the copy sheet templates for consistency, accuracy and compliance with the established content management process.
- review, proof-read and approve copy sheet in one place.

You can create a copy sheet using Text Content Document References in an **Attribute Category**. This gives the option to attach this copy sheet to your Projects or artwork documents.

The copy sheet categories allow you to:

- track the content on an artwork.
- easily reuse existing approved content
- configure separate permissions and approval system for each text document.



**Tip:**

By configuring *Document Rendering* for Text documents, you can attach copy sheets to Tasks. When you configure Workflows with manual tasks for editing or approving, the users can work on the copy sheet directly from their task.

An Attribute Category based copy sheet offers the following advantages:

- the languages. To view a particular translation corresponding to a master, just select that language in the filter drop down.

- the **Instance Sequence**. See more in: [Dynamic Content documentation](#)
- the option to [replace a text document with another](#)
- the button to [duplicate a document](#) with the same reference attributes
- [advanced document reference options](#)

You can [Edit](#), [Start Approval](#), [Approve and Reject](#) actions from the copy sheet depending on your content permission.



**Note:** The text document references are used when you import Dynamic Content into WebCenter. Read about this [here](#).

See the example screen shot below. The configuration explained here is only an example. You can configure your document references according to your needs.



**Tip:** You can configure the copy sheet with different **Attribute Views** to provide custom views to your users. For example, a content collator and Translation Language Editors can have different [custom views](#) of the same text document reference category.



**Note:** You can also add the languages by clicking on the **+** displayed in the text statement. On deletion of a language, the **+** icon is again displayed to enable adding back the language. You can configure the corresponding attribute category to display the languages one by one in a table.

Name		Master Text: English - International	Translation Text: French - France	Text Languages	Language Flags
Marketing copy	Content 001006.wcc	✓ MICHU VITAMINÉ: ES, BE, BTZ, C	⊘	+	🇺🇸 🇬🇧 🇫🇷 🇧🇪 🇧🇪 🇧🇪 🇧🇪
Marketing copy	Content 001007.wcc	✓ REFRESHMENT WITH ZINC & CHROMIUM	✓ RAFFRAICHISSEMENT AVEC ZINC ET CHROME	+	🇺🇸 🇬🇧 🇫🇷 🇧🇪 🇧🇪 🇧🇪 🇧🇪
Marketing copy	Content 001008.wcc	✓ EXCELLENT SOURCE OF ELECTROLYTES	✓ EXCELLENTE SOURCE D'ELECTROLYTES	+	🇺🇸 🇬🇧 🇫🇷 🇧🇪 🇧🇪 🇧🇪 🇧🇪
Recycle statement	Content 001009.wcc	✓ RECYCLE PLASTICS	✓ RECYCLER PLASTIQUES	+	🇺🇸 🇬🇧 🇫🇷 🇧🇪 🇧🇪 🇧🇪 🇧🇪
Variant	Content 001010.wcc	✓ TROPICAL BLEND	✓ MÊLANGES TROPICAUX	+	🇺🇸 🇬🇧 🇫🇷 🇧🇪 🇧🇪 🇧🇪 🇧🇪
Packaging claim	Content 001011.wcc	✓ ENERGY DRINK	✓ BOISSON ÉNERGISANTE	+	🇺🇸 🇬🇧 🇫🇷 🇧🇪 🇧🇪 🇧🇪 🇧🇪

### Automatically add/remove languages in the Documents Table

Adding any of the available languages is possible based on permissions on all the local text content documents in the table, but for the remote documents (sitting in another project). Auto Addition of Languages can be enabled in the [PCM Deployment and Configuration](#).

When a new language is added in a Master/Translation language attribute, the language is automatically added into all the local text content documents. For the new text content documents in the local project, the missing languages are added and extra languages available in the text content are removed.



Similarly, when a language is removed from a language attribute, it automatically removes the languages which are added recently but not yet saved.

## Create a Table Rendering for Text Documents

You can configure a Text statement as document references and add them to a Project or Document Attribute category. The configuration and rendering are similar for Task Specifications.

For each Copy Sheet (Product Content Sheet), which has Text Content documents as reference, you can make different configurations to show text related data using advance table rendering option."

1. [Create a Table Rendering](#).
2. In the **Edit Rendering Configuration** pop-up:

Configure	The result in the rendering table will be...
<b>Master Text or Translation Text</b>	<p>Master Text Statement or the Translation Text is shown in a text widget along with its content in the edit field and all related text content actions.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> The <b>Visibility</b> should be specified as Editable if you want your users to edit the text. One or more columns can be configured for the Master or Translations of the Master Text.</p> <p>Master and Translation languages will either appear in a drop down or you can choose <b>Show Side by Side</b> view.</p> <p>You can also restrict the languages that will appear in the drop down, by mentioning the languages ( pipe separated) specifically in the details tab.</p> </div>
<b>Text Language Flags</b>	<p>The language drop downs for Master and Translation Text columns.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> The master and translation languages are populated from the project attributes MASTER_TEXT_LANGUAGE and TRANSLATION_TEXT_LANGUAGE respectively.</p> </div>



**Tip:**

You can specify a default language code for Text statements. The selected language will be the default in the document reference table. If default language is not specified, the first language from the language drop down is selected as the default. WebCenter also supports right to left languages like Arabic and Hebrew for text content.

3. Specify the width for Master Text and Translation Text. By default, the width of every column is set to **Auto**. However, you can configure the width for the Document Name, Master Text, Translation Text and the Translation Languages.



**Tip:**

To change the width of the columns, specify pixels or a percentage (of the width of the table). If the label of the column is too big for the width specified, the column width will be bigger to accommodate this.

**Edit Render Configuration**

Name: PCM Text Reference\_Default

Hide Header  
 Open Links in new Tab  
 Allow Bulk Operations  
 Limit Bulk Operations to Document References with matching Operations configured

Type	Details	Label	Visibility	Width	Collapse
:: Document Property	Thumbnail	Thumbnail	Read Only	50 px	auto
:: Document Name	<input checked="" type="checkbox"/> Show Document Source <input type="checkbox"/> Show Document Description <input type="checkbox"/> Show Folder <input type="checkbox"/> Show Document Template	Name	Read Only	100px	
:: Replace Button	<input checked="" type="checkbox"/> Compact Rendering		Read Only	auto	
:: Reference Property	ARTWORK_VARIABLE	ARTWORK_VARIABLE	Editable	auto	
:: Reference Property	INSTANCE_SEQUENCE	Instance Seq.	Editable	75px	<input checked="" type="checkbox"/>
:: Translation Text	<input type="checkbox"/> Show Side by Side [Display Options: Status, Inheritance, Comments, Approval]	Translation Text	Editable	600px	
:: Master Text	<input type="checkbox"/> Show Side by Side [Display Options: Status, Inheritance, Comments, Approval]	Master Text	Editable	600px	
:: Delete Button			Read Only	auto	

- You can also enable the **Display Options** in the Edit Render Configurations. You have four icons buttons and are active by default.

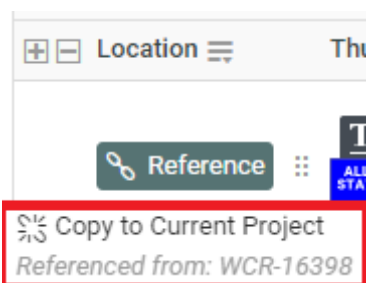
  - Status Button** Show status column in default manner like basic view page when active. When the button is inactive it shows status in the form of a colored strip based on the status of the content. Green for approved, red for rejected, blue for pending approval and grey for draft.
  - Inheritance Button** Shows the inheritance icon when active.
  - Comments Button** Shows the comments icon button when active.
  - Approval Info Button** Shows the approval info button when active.

While Rendering of Master and Translation Language, if all the button options are disabled and there is no message to show then more options "Ellipsis" button will also not be visible.
- Configure the display of **Text Language Flags**. You can configure the **Display** as **Show only Flags** or **Show Flags and Languages**. These flags will be based on the Project Language Attributes.

- In the copy sheet view, all the newly created text documents will have the current Project's [Language attributes](#) as flags. You can read about how to customize flags for languages [here](#).
  - All the sourced content (referenced from other Projects) will have the flags based on the source Project's language attributes. To add the current project's languages, select them from the available flags. You can add or delete flags in this view.
5. You can allow the users to move a referenced document into the current project. To set this up, create a column with **Local / Remote** setting. Specify the **visibility** as **editable** or **read-only**. You can move all the referenced documents into the local project by hovering on the **Location** in the header and selecting the option **Copy All References into Current Project**.

+ Upload + Link + Search + Search			
Location	Thumbnail	Name	Version
Copy All References into Current Project			
Reference	ALLERGEN STATEMENT	Reference ■ Allergen statement 0002_TextDoc_00000814_PCM.wcc	1
Reference	BEST BEFORE DATE	Reference ■ Best before date 123Best before date.wcc	8(F)
Reference	DOSAGE INSTRUCTIO	Reference ■ Dosage instructions 123Dosage instructions.wcc	1
Reference		!!Carrot11.pdf	1
Reference	NUTRITION FACTS	00000002_Nutritional Facts_C.wcc	1

You can move any of the referenced document to the local by clicking on the Referenced field of the required document and selecting the option **Copy to Current Project**.



The users need to **Change Properties** and **Add** permissions to move a document to local folder. The document reference will point to the local copies.

The user will be able to specify:

- a new name and description
- document template
- target folder

If the setting is **Read-only**, the user will see  indicating remote project.

6. If you are configuring **Local / Remote** button to allow copying of documents, ensure that you have enabled or disabled **Retain text document status**.

When this option is turned off, if you copy to **Local**, the approval status of the Text Document is reset to **Draft**.

If **Retain text document status** option is turned on when you copy the document, the document's approval status is retained as it is.

7. Define adequate permissions to view and edit Text Statements.

Whether or not your user can edit or perform approval actions on a Text Element is determined by the following settings and permissions:

- **Visibility** should be specified as **Editable**.
- If your Text Document Reference is a child of another document (for example an artwork), the **Expand Attributes (+)** column of the Parent document should be configured as **Editable**.
- The user should have appropriate Content Permissions. Read more in: [Managing Text Permissions](#) on page 523.



**Tip:**

Check these Project level permissions (**Project Details > Security**) to troubleshoot editing problems:

- **Change Properties**
- **Start/Stop Approval**
- **Upload new version**
- **Change Task**
- **Download**
- **View**
- **Add**



**Note:** The Text widgets, related languages and statuses are rendered only for Text Document References.

## Configuring Document Sources for Text Documents

You can configure your **Document Sources** (such as a Project/template which serves as a library of Text Documents / Artworks), a Saved search of your Text Documents, or your Document Templates) in the **Grid layout** of an Attribute Category or Project Template.

**Edit Document Sources Configuration**

DEKE\_DocRef\_Symbols\_Default

Source	Label	Details	Operation	Target	Target Folder
Document Templates	Standard New	Document Template selector Any Document Template configured Copy Operation Basic Copy	Copy	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Replace	Documents
Saved Search	Standard Search	Search Name -- Select Search -- Document Template selector Any Document Template configured Copy Operation Basic Copy	<input checked="" type="checkbox"/> Copy <input type="checkbox"/> Link <input type="checkbox"/> Move <input checked="" type="checkbox"/> Use by Reference <input checked="" type="checkbox"/> Create Assembly	<input checked="" type="checkbox"/> Add <input checked="" type="checkbox"/> Replace	Assembly Graphic Placeholder

Your configured sources will appear in the places (such as templates or forms you have designed) where you set the document reference categories. Read more in: [Adding Document Sources for a Document Reference Attribute](#) on page 383.

## Replace a Document Reference

You can configure a **Replace** option in your document reference table. When you **replace** the old reference, the new document reference will have the same **reference category** as the old one.



**Note:** Project managers, Administrators or users with Change Properties rights can replace the document reference.

Translation Text Dutch - Netherlands INSTANCE\_SEQUENCE

Signed Off

- Replace By
- Link
- Browse
- New
- Search

When you configure a **Replace button**, it allow the you to

- replace the document via any of the configured [document sources](#) (**upload, browse**, etc.). If you do not select any option, the first source is taken as the default.
- Undo the action** before saving the new document reference.

This document has its own **Attribute Category** but will keep the same **Reference Category** as the old reference.

You can also select **compact rendering** option for this button.

## Duplicate a Document Reference

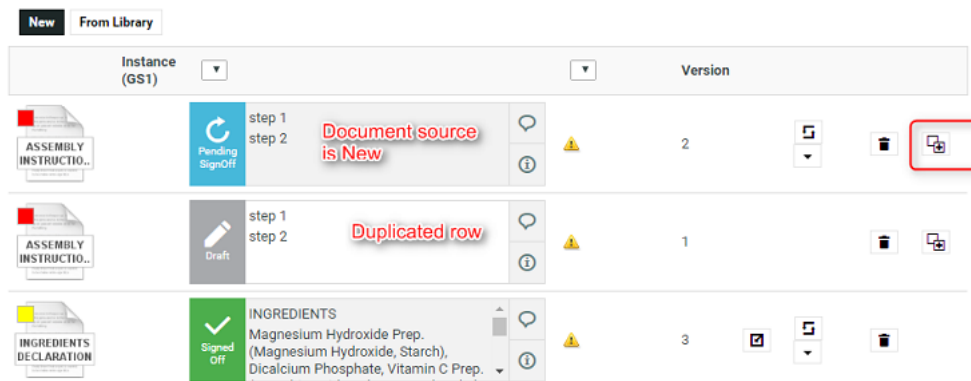
You can configure a **Duplicate** option in your document reference table in both **Attribute Category** and **Dashboard** pages. When the user **duplicates** a reference, a new row of document reference will be created. The duplicated document will have the same content, document **attributes** and **reference category** as the previous one.

In the case of Text Document, Content file, then each element status in the file will be reset to draft.



**Note:** Only users who are Project managers, Administrators or with Change Properties rights can replace the document reference.

Technical:



When you configure a **Duplicate** button, it will allow the users:

- to duplicate a document row with **Copy** and **New** as [document sources](#).

The duplicate documents are created in the current Project where the copied or newly created documents are stored.

You cannot duplicate a document reference if the document source is:

- Browse / Link / Use by Reference / Remote.**

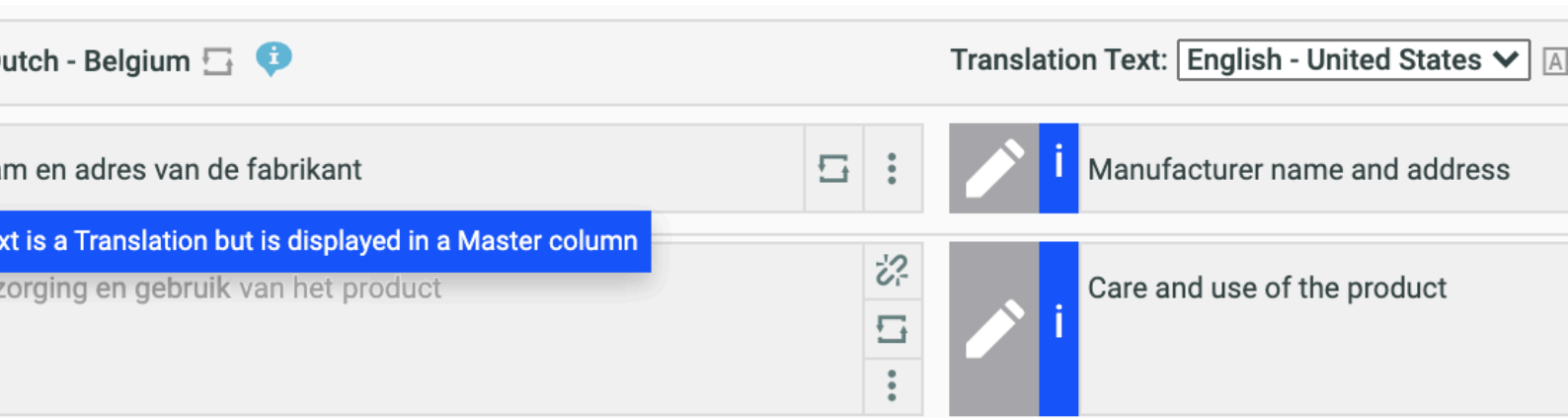
Behavior while duplicating document and its reference properties:

- If **Allow multiple values** is turned off in the attribute category, the duplicate will replace the original instead of adding a new document reference.
- The duplicated document will have the same Attribute category including the child document references. The Reference categories and its settings are copied at parent and child levels.
- The duplicated row inherits the entire hierarchy (if any) of the parent row including the attribute values.
- It is possible to duplicate a newly created document row.

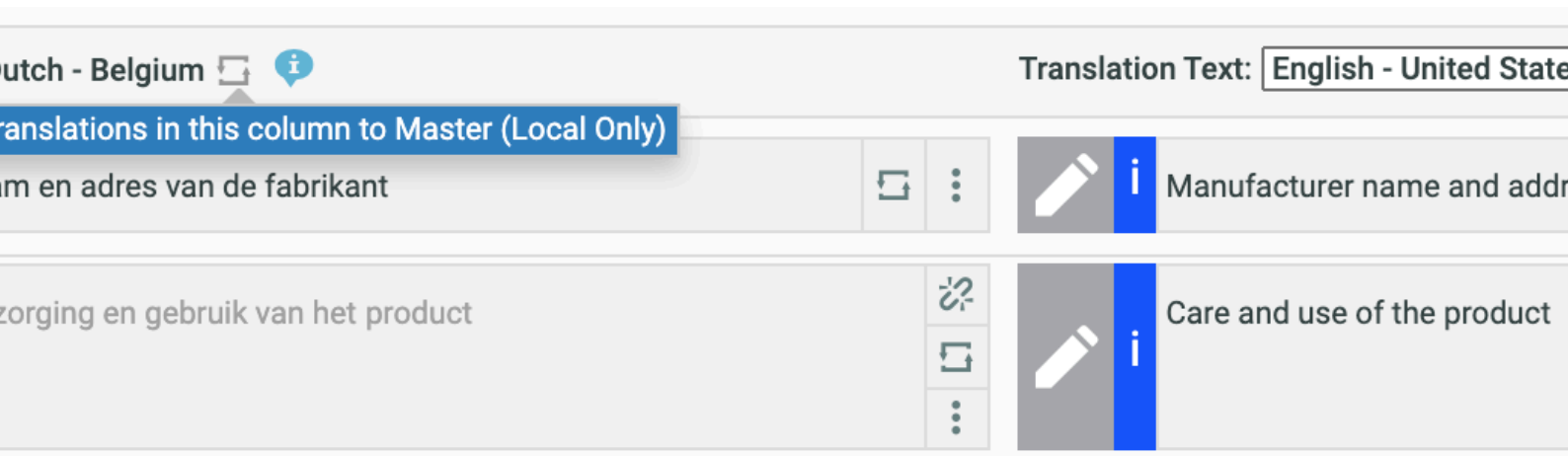
## Convert Translation to Master

Master and Translation columns will render the languages available in the Text Content documents even if there is conflict in type, e.g. a translation language will be displayed in a Master column and vice versa. In this case an indication is shown in the widget as shown below.





A **Convert to Master** option is available in the widget. This allows you to convert a translation to a master language for a single document. Similar to the option on document level, this button is also available in the documents table column header. Clicking the button in the header will do a bulk conversion for all the local documents.



For more information on Flexible Master Language, please check [this page](#).

### 3.26.7. How to Configure a Setup to Extract Dynamic Content

This chapter provides an overview of what needs to be configured to have a functioning Content Management setup in WebCenter.

To efficiently manage the content, you need a setup that addresses the packaging content in the context of packaging artwork. To create such a system you need:

- Reusable text documents stored in the form of libraries
- Text Document Templates
- Artwork libraries and Templates
- Attribute Categories with Languages to be attached to the Projects

- Copy Sheet or Text Document References attached to Artworks

The steps below describe how to create a setup to import Artwork templates from Adobe Illustrator (With Dynamic Content) along with the Text Content mapped to a Copy Sheet.



**Note:** This is an example configuration. Other than the essential steps, all other steps meant as recommended, not mandatory.



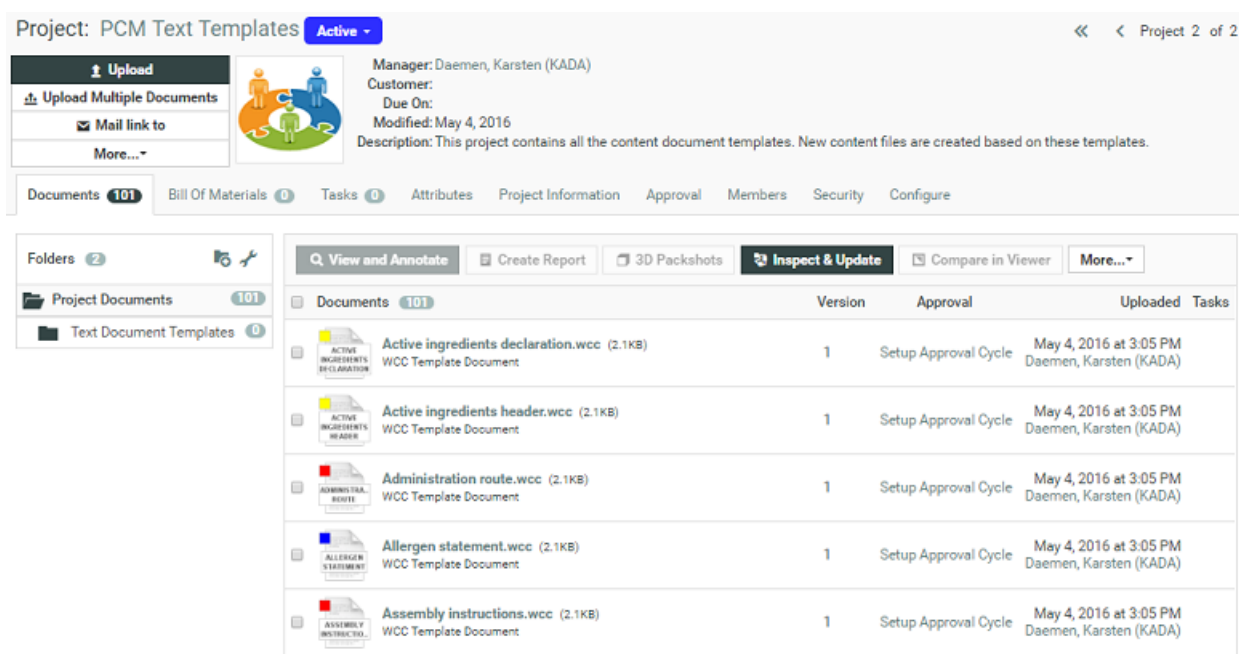
**Note:** To get you started, we have created a migration setup that you can import into your system and start on it. See in: [Knowledge Base article](#).

1. **Follow the Essential steps to configure the module.**
2. **Create Text Document Templates. You need these templates to create new Text Documents.**



**Important:** You can create Text Templates with all the necessary configuration automatically. This is recommended if you require a large number of templates. Contact Esko Professional to configure your Text Templates automatically.

You can now start using these templates to create new Text Content Documents.



The screenshot shows the WebCenter interface for a project named "PCM Text Templates". The project is active and managed by Daemen, Karsten (KADA). It contains 101 documents. A table lists several WCC Template Documents:

Documents	Version	Approval	Uploaded	Tasks
Active ingredients declaration.wcc (2.1KB) WCC Template Document	1	Setup Approval Cycle	May 4, 2016 at 3:05 PM Daemen, Karsten (KADA)	
Active ingredients header.wcc (2.1KB) WCC Template Document	1	Setup Approval Cycle	May 4, 2016 at 3:05 PM Daemen, Karsten (KADA)	
Administration route.wcc (2.1KB) WCC Template Document	1	Setup Approval Cycle	May 4, 2016 at 3:05 PM Daemen, Karsten (KADA)	
Allergen statement.wcc (2.1KB) WCC Template Document	1	Setup Approval Cycle	May 4, 2016 at 3:05 PM Daemen, Karsten (KADA)	
Assembly instructions.wcc (2.1KB) WCC Template Document	1	Setup Approval Cycle	May 4, 2016 at 3:05 PM Daemen, Karsten (KADA)	

**3. Create WebCenter Projects as Text Libraries and Artwork Libraries and organize your assets in them.**

Do this for:

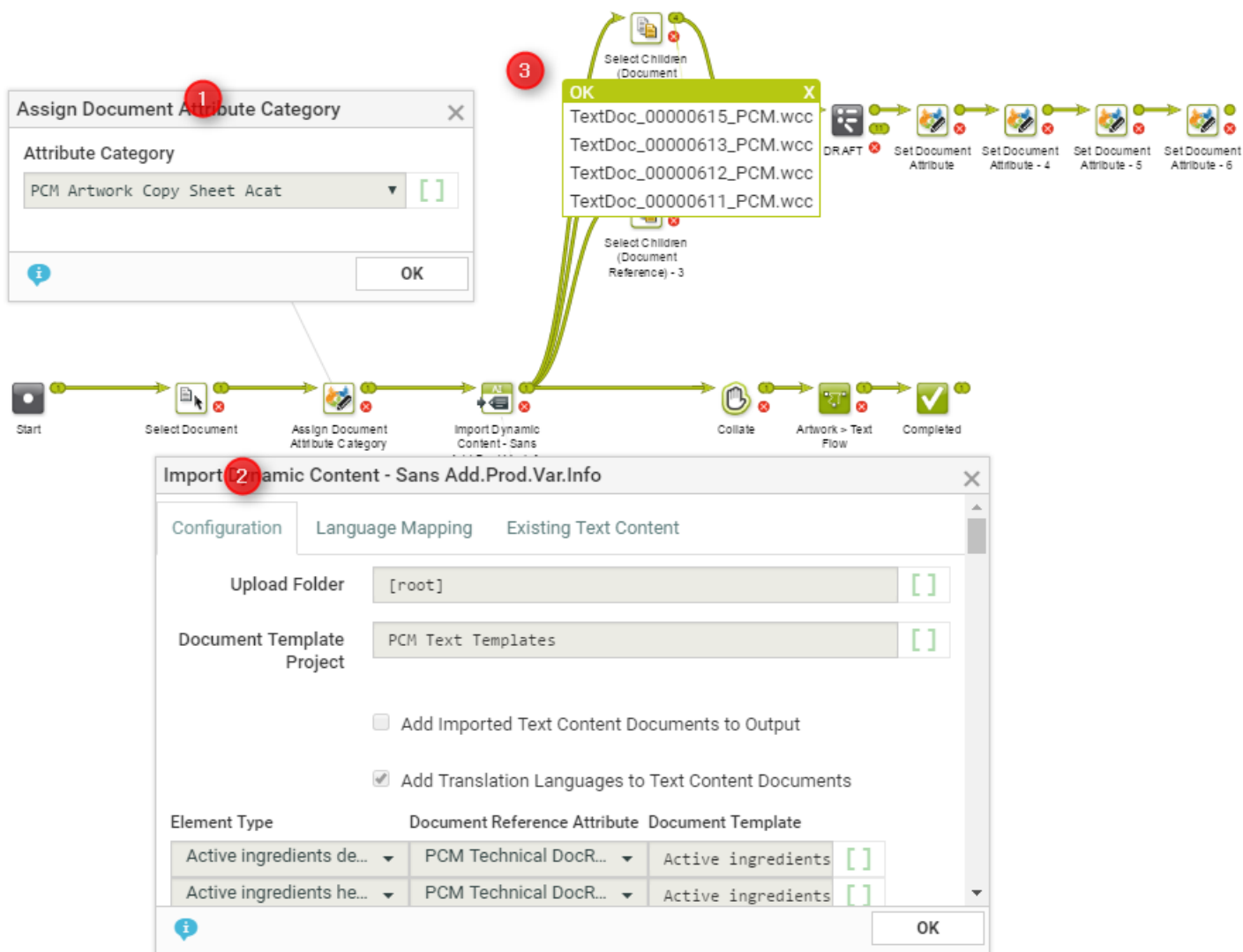
- Text Content Documents,
- Artworks,
- and more...

See more examples [here](#).

To organize further, you can create [advanced Text Searches](#).

4. **Create copy sheets.** They are Attribute Categories with Text Document References.

- a) Create your **text document reference attributes** and add them to an **Attribute Category**. You can use the advanced features available in the **grid layout**.
  - b) Add the mandatory [Reference Category](#) to these document references. This is used in matching the Artwork's Dynamic Content elements to text references.
  - c) [Create a table rendering](#) with text related options. You can configure Master and Translated Text widgets for your copy sheet. You can use all the advanced features available in the **grid layout**. Depending on the User's permission (Editor, Approver or Content Manager), they can do content actions in this page.
    - Make the attributes **editable** (the **visibility** setting) to allow for text editing.
    - Allow adding multiple documents by enabling **allow multiple values**.
  - d) Configure the **document sources**. Choose the operation (copy, link, move, or use by reference). Read more in: [Adding Document Sources for a Document Reference Attribute](#) on page 383 **document sources** settings you configure here will be rendered in the text document table.
    - Create a custom **label**.
    - Specify the source of the document. For example, a **Saved search** of text documents for adding approved text. To create new text documents, the source will be **Document templates**.
    - Specify the type of operation: **copy**, **move** (move content to the local folder) or **use by reference** (to use approved content from a library or saved search).
5. Create other attributes necessary for the document as per the requirement.
6. **Create Import setup for Adobe Illustrator design files with Dynamic Content**. This workflow will map the content to the copy sheet attributes (text document references) created in the previous step.
- a) Create a Task Type for the import workflow.
  - b) Configure your workflow [step](#) to assign the Copy Sheet attribute category to
  - c) Create a step to extract the [text content as Copy Sheet references](#) of the artwork.
  - d) Configure the [Import Dynamic Text](#) on page 922 step with document reference and document template mapping. Specify the reuse policy for partial matches in this step.
  - e) [Route the workflow depending on the text document status](#).



In the example, when an artwork with Dynamic Content arrives at a Packaging Content Management workflow, the following steps happen:

1. The workflow assigns a **Document Attribute Category** to the artwork (parent). This 'copy sheet' category contains the **document reference attributes** to which the text content will be imported.



**Note:** If this step is not in the workflow, the **Import Dynamic Content** will use the Project's attribute as the default.

The category contains the **Document Reference Attributes** for:

- technical text statements,
- legal statements and
- marketing statements

to serve as the copy sheet template.

2. The **Import Dynamic Content** step maps the various Element Types to appropriate **document reference attributes** as configured.
3. The [Select Children](#) nodes select the text documents (technical, legal and marketing) separately. These documents can be processed as separate text documents while keeping the link between them and the artwork alive.

Later in the production process, you can supply the approved textual content in the form of an XML file. Read in: [Export to GSI Format](#) on page 915. Using the Esko Dynamic Content plug-in, the designer can add the approved content to the Illustrator document.

7. Create Approval Workflows to assign Tasks for different approval stages.

When you have assigned Content Permissions and assigned them to Roles, the assignees can manually go into each text document and approve it. However with a workflow, you can assign [Tasks with Text Documents](#) to those Roles automatically.



**Note:** You need to configure these Workflows according to your business needs.

Read more in the KB article:

8. Create other Workflows depending on your business needs.
9. Configure Project Templates to create projects to update or create new Artwork templates with content.
  - a) Configure the Project Creation Form.
  - b) Invite **Members** (Roles and Groups) who will perform various tasks in the Project context. These are important for activating the Content Permissions (from Document Templates). Read more in: [Managing Text Permissions](#) on page 523
  - c) In **Configure > Document Templates**, link [the text document templates](#) to allow creating new text documents.
  - d) Optionally create a custom setup for document sources in **Configure > Document Creation**.
  - e) Assign an **Attribute Category**. It should contain the following attributes and any other attribute relevant to your Projects.
    - MASTER\_TEXT\_LANGUAGE
    - TRANSLATION\_TEXT\_LANGUAGE



**Note:** The MASTER\_TEXT\_LANGUAGE and TRANSLATION\_TEXT\_LANGUAGE attributes determine the languages of the Text Content documents located in that Project.

- [Language Index](#) attributes.



**Note:** If the Language Index values are not specified, the default values (from the Language Lists) will be used as indices.

To determine the Master and Translation languages of a Project, you need to define these in the **Template > Attributes** page.

- f) Add the Workflow Tasks to the Template. The workflow tasks configured for import and approval are configured to launch right after the project creation.

### 3.26.8. How to Configure a Setup to Extract Images, Symbols and Graphics

You need to create attributes which are used in mapping the Images, Symbols and Barcode to the document templates. When images, symbols and Barcode are imported, these are used to map the location. These are later used in exporting the content into GS1 format as well.



**Note:** These are not visible to your users.

1. Create the following **Attributes**.

For Symbols

- **SYMBOL\_NAME:** This is an attribute commonly used for storing the name of the symbol present in the artwork.

For Images

- **EXTERNAL\_IMAGE\_PATH:** This is an attribute commonly used for storing the path of the image present in the artwork.



**Note:** If the incoming document is a chili document, ensure that the attribute **ARTWORK\_VARIABLE** is available.

For Barcodes

1. **BARCODE\_TYPE:** This is an attribute for storing the type of Barcode present in the artwork.
  2. **BARCODE\_BASECODE:** This is an attribute for storing the base code of the Barcode present in the artwork.
  3. **BARCODE\_COMPOSITE\_COMPONENT:** This is an attribute to store the composite component for GS1 Barcodes.
2. Include the above attributes as required in the **Attribute Category** of the Document Template / Document.
  3. Ensure the following attributes are part of **Reference Property** of the document references.
    - **INSTANCE\_SEQUENCE :** This will be a reference attribute for the document.
    - **LOCATION\_LIST:** This reference attribute stores the specific location of the document.

You can view the imported images, symbols, and graphics in the Attribute category for the document.

### 3.26.9. How to Configure Auto Translation Service API Key

The translation service API Key can be configured in Admin > Configuration > PCM Deployment and Configuration > [Configuration Tab](#).

## 3.27. Migrating your Data

---

As an Administrator, you can migrate your WebCenter data to a different WebCenter server, for example, to:

- test a new version on a test server where you create new configurations. You can copy this to the production server later.
- perform some tests on a test system with production data. You can export your production data (for example a large number of groups with their visibility and download permissions) to the test system.
- rapidly deploy a solution developed by Solution Architects.
- copy data between different WebCenter installations.
- migrate the data to a third party system to archive them.

**Note:**

Before migrating a configuration, you need to migrate Users:

- Create Users in the target system
- Optionally remove Users

### 3.27.1. Comparing WebCenter Configurations

One of the major challenges of WebCenter is making sure all environments (Dev, QA, Production, ...) are in sync. The **Compare Configurations** tool will look for differences between both systems and show the results in a comparison overview. It allows you to easily compare the WebCenter system with another WebCenter system running the same version.

#### Connecting to a remote WebCenter

To set up a connection to another WebCenter system:

1. Click **Select System**. This will open a login dialog.
2. Enter the base URL of the remote WebCenter Installation, e.g. 'https://xyz.com/WebCenter\_Inst'.
3. Enter the credentials of a user with Administrator rights on the remote system.
4. Click the now active **Select and Compare** button.

The dialog closes and the comparison process starts.

#### Verifying the results page

The top of the comparison page shows you the local and remote system URL.

After clicking the **Select and Compare** button, results will gradually be added to the page. It may take some time to complete the comparison process. Progress is indicated by a radial progress indicator next to the system info at the top.

On the left side an overview of all compared items is displayed. For each section, badge counters indicate the number of actual differences (red) and/or the number of entries that were missing either on the remote or on the local system (grey). The sections act as hyperlinks and clicking will take you

to the corresponding tabular view. A red exclamation mark indicates an issue was detected during comparison. The tabular view will display more information on the issue. A section without a badge counter or error icon indicates no differences were observed.

On the right side, tabular views will show the results for each compared type. The number in brackets, next to the section title, displays the number of records shown.

There are two types of comparison:

- **Settings or global configuration comparison** (General Preferences, Password Settings, ...): all the fields of the configuration that do not match are displayed.
- **Named configurations** (Attributes, Task Types, ...): the following situations can occur and are reported:
  - The configuration with a given name cannot be found on the remote system.
  - The configuration with a given name cannot be found on the local system.
  - The configuration with a given name is present on both systems, but the configurations differ. A collapsible set of rows is added to the record and displays all the specific differences.

Filtering controls can be found at the top right corner of the tabular view. The filters become active once the processing is completed. Data can be filtered on textual matches and/or on difference type.

The difference types are:

- **Different (Not Equal)**: An entry for which the value differs on the local and the remote system.
- **Missing Locally**: An entry for which the value is absent on the local system.
- **Missing on Remote**: An entry for which the value is absent on the remote system.
- **Equal**: An entry with a value that is the same on both the local and the remote system. Note that by default equal values are not shown. Selecting this filter updates the page and shows all values that were equal as well.

When updating the filter settings, the badge counters next to the section title will also update to indicate the number of matching records.

When scrolling down, a button at the lower right of the page will become visible to quickly navigate back to the top.

### Generating a printable report

The **Print Report** button is available as soon as the comparison is completed. Clicking the button will open a print preview.

The printable report includes a timestamp, information on the user who generated the report (user logged in on the local system) and the local and remote URL of the compared systems.

Any filter settings that were applied to the page will also be applied to the generated printable report.

Generating the print preview may take some time, depending on the amount of content selected.

By default, background graphics are typically not included in the view. To include all background graphics, select the specific printing option in the print preview properties.

## 3.27.2. Migrating Self-contained Data

From WebCenter 16 onwards, you can do self-contained migration of Projects / Templates and this saves the effort of migrating items individually. When you migrate a Template or Project with the setup, the items are exported and imported in the correct order.





It is also possible to migrate individual items to a target system. Read in: [Migrating other Data](#) on page 553.

## Exporting Templates or Projects

You can export Projects / Templates along with its Attribute Category, Task Types, Documents, Members ([Groups](#), Roles, Users), Folders, Lists, Characteristics, Permissions and other settings. It is a self-contained export of all the items that are in a Project or Template.

You can choose whether you want to export the Projects with or without its Documents.

1. Go to **Admin > Project Management > Templates / Projects**.
2. Search for the required **Templates** or **Projects**. You can also select from the list.

-  **Export** to export an XML file without the Documents. For e.g. `ExportedWebCenterProjects.xml`
-  **Export with Documents** to export a ZIP file with its Documents. For e.g. `WebCenterDownload.zip`



**Note:** When lists are exported, it is exported in the zip file.

3. Save the XML or ZIP file generated to your computer or a network location.

### The below items are included in the Project / Template Export XML / ZIP:

- Project Name, Due Date, Description, Project Status including icons, Project Manager (along with Group)
- Customer, Document template project



**Note:** The names are exported but the links are established only if they exist in the target system.

- Project Members: Groups and Roles
- Groups, Roles, along with their invitations and permissions: A merged list of all the Project Group and Role members is exported. Read more in [Migrating Groups / Roles](#) on page 553
- Attribute Categories along with Attributes and their values: Reference Categories, their attributes and their values. Restricted sets and lists are also included. Document Reference attribute values (both for Project and/or Document Attributes and/or Task Specifications) is exported along with any additional Document Reference properties.



**Note:**

During the import, a search is made in the target Project for a Document with the same name as the Document and Project on the system from where the Project was exported. If such a document is found, the value of the Document Reference (including Document Reference properties) will be restored. When a matching document is not found, a warning is displayed in the import feedback page.

Irrespective of the version of the Document on the source, only the value in the latest version of the the Document Reference attribute is updated on the target system.

- A merged list of Project Attribute Category and default [Document Types](#) Categories is exported. Read more in: [Migrating Attribute Categories](#) on page 555
- Tasks (Sequence, Icons, Assignees, Allowed Assignees) and Task Types: See also: [Migrating Task Types](#) on page 557

A merged list of Task Types along with icons of all Project Tasks and Tasks attached to [Document Types](#) is exported.

- Folders and Permissions settings on Folders (for Groups and Roles) and Role Assignments
- [Document Types](#) settings:
  - Autaname settings
  - Task settings
  - Attribute Category
- [Project Creation](#): Creation form settings and Project Autaname settings
- [Document Creation](#) settings
- Document Sources ([Global Saved Searches](#))
- Notifications
- Document templates



**Note:** The library of templates should exist the target system.

- Document Characteristics
- Approval Setup:
  - Project
  - Folder
  - Document
- Thumbnails of Project, Folders and Documents



**Note:** The Thumbnails are exported only when you include documents in the export.

- List of Documents and Folders
- Documents if the option **Export with Documents** is selected.
- Document Approval Status



**Note:** You can export Approval Statuses this for archiving purposes. But you cannot import it to another WebCenter.



**Warning:** If you have turned on **Add Approval Information to downloaded PDF** turned on, the approval details will be included in export and import.

- Documents added to Bill of Materials

**Items not included in the export:**

- Documents attached to Tasks
- Workflow Connection
- Users and Permissions
- If the company/location does not exist in the target location, then the company is not created.
- Submitted Document approval statuses
- Project, Task and Document Discussions

**Importing Templates / Projects**

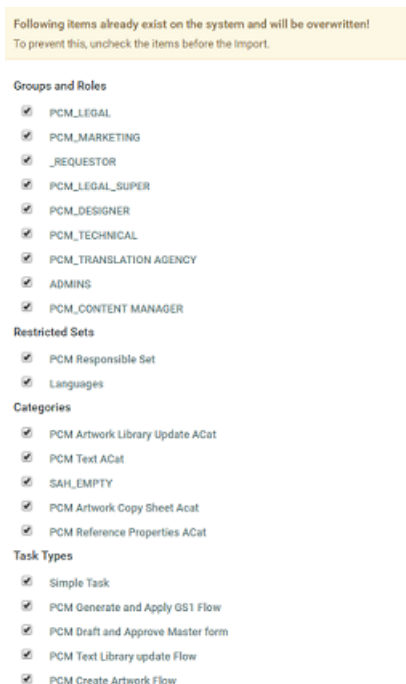
When you import **Templates** or **Projects**:

- They will get created according to the contents of the import XML/ ZIP file.
- Documents will be added only if they do not exist in the target project. Upload will fail if a document with the same name exists in the target project.

1. Go to **Admin > Project Management > Templates** or **Projects**.

2. Click **Import from File** on the Template Management page.
3. Click **Choose File** and then select the XML or ZIP file.
4. Click **Import**.

When you import self-contained XMLs and ZIP files, you will get an overview of the items in the file. You can choose to import them all or select the items individually:



**Tip:**

The documents in the ZIP files will be imported by default.

If you don't want to import the documents, disable **Import the Document(s) in the Project/Template when importing Projects/Templates**.

5. Uncheck the items you do not wish to import and click **Import**.

The referenced objects will be imported first:

- *Attribute Categories including the attributes and restricted sets will be imported. .*
- *Groups / Roles with their settings..*
- *Task Types.*



**Caution:** When you are importing a Workflow Task Type (during the export of a Project / Template), objects referenced by the Task Types may not be linked properly. If you notice an error, reimport the same Project and the links will be established correctly.

6. Select **Enter Database Credentials** to specify if the WebCenter Database has to create a table or not. If yes, then the **Database Username** and **Password** has to be specified.

After importing these, the Project / Template with its setup will be imported. Check this [list](#) to see what is included in the import.

The items that are not imported are listed below:

- User members and permissions
- Document Reference values
- Company / Location
- Document approval statuses
- Project and Document discussions

### Exporting Saved Searches

You can export **Saved Searches** (Project, Task or Document) to in XML format.



**Note:**

Before migrating a configuration, you need to migrate Users:

- Create Users in the target system
- Optionally remove Users



**Note:** When you intend to migrate **Saved Searches**, migrate the Projects / Templates first. This will make sure that the search criteria (such as attributes or roles) exist in the target system.

1. Go to **Admin > Search > Saved Searches**. A list of Personal and Global **Saved Searches** is displayed.
2. Select any of the items from Global list and click **Export**
3. Save the XML file generated (`ExportedSavedSearches.xml`) to your computer or a network location



**Note:**

- Only **Global Saved Searches** can be exported.

Export of a Saved Search contains:

- Basic properties of each selected Saved Search
- Search Criteria
- Search Visibility Settings
- **Referred Objects**
- Groups, Roles, along with their invitations and permissions:
- Attribute Category used in Search along with their Attributes and values



**Note:** Document Reference values and the Document sources (Saved Searches) are not included in the export.

- Restricted Set
- Task Specifications specified in Search



**Note:** The Specification Categories are not imported.

- Task Types along with its settings: See also: [Migrating Task Types](#) on page 557



**Note:** The Task Status will not get imported

Export of a Saved Search does not contain:

- Company and Location Visibility settings
- Project Status
- Lists



**Note:** Text Document Search export will not include the Element Type and Language Lists.

## Importing Saved Searches

For Importing **Saved Searches**, use the steps below.



**Note:** You cannot import a Saved Search exported from a later version.

### 1. Admin > Search > Saved Searches > Import from File

2. Click **Choose File** and select the XML file.

3. Click **OK**.

You will see a warning about items that already exist and will be overwritten.

4. Uncheck the appropriate items and click **Import**.

If you encounter issues during the import process (for example, a missing Restricted Set on the target server), you see a warning.

See more details about the import of externally referred search criteria below:

In a **Project Search** the following Search criteria are imported:

- Roles: When a match is not found, an error message is displayed and the import fails.
- Attribute (general) and Attribute Category: When a match is not found, an error message is displayed and the import fails.
- Restricted Set value type: When a match is not found, an error message is displayed and the import fails.
- Document Reference: When a match is not found, you get a warning and a feedback message is displayed.

The **Project Search** criterion entities that do not get imported are:

- Project Status: When a match is not found, you get a warning and a feedback message is displayed.

In a **Document Search** the Search criteria entities that get imported are:

- Search Layout- Show Project Creation Link: When a match is not found, you get a warning and a feedback message is displayed.

In a **Document Search**, the Search criteria entities that do not get imported are:

- Element Type (Configurable Search field): When a match is not found, you get a warning.
- Language (Text Document): When a match is not found, you get a warning.
- Document Type specific metadata: When a match is not found, the import fails with an error message.
- Lists: When a match is not found, you get a warning.

In a **Task Search**, the Search criteria entities that get imported are:

- Task Type: When a match is not found, you get a warning. Import fails if the criteria is used on Task Specification selection page.
- Task Specification: When a match is not found, an error message is displayed and the import fails.
- Search Layout- Show Project Creation Link: When a match is not found, you get a warning and a feedback message is displayed.

In a **Task Search**, the Search criteria entities that do not get imported are:

- Task Status: When a match is not found, you get a warning and a feedback message is displayed.
- Lists: When a match is not found, you get a warning and a feedback message is displayed.



**Note:** Limitations:

- When you have Document Searches with **Show Project Creation Link** with **Template from Characteristics Path Layout**, the search is imported but the option is not validated.
- **Modified date** related criteria does not consider the Time Zone difference into account.
- Referred Saved Searches (as a document source in a document reference) are not exported.

### Importing and Exporting of Lists

In WebCenter 18.0.1, when a Project or a Template is exported, lists in the projects that are part of the Attribute Categories or Task Types are also exported. A zip file containing List configuration and List Documents are created along with the other project components.

WebCenter will now detect whether, if any of the exported objects is dependent on a List or not, and export it in the zip file when the project is exported.

The exported zip file has:

- **ListManager** folder: Contains all the documents needed to reconstruct the List. This folder can have multiple sub-folders exactly as in the source project.
- **XML** file: Contains all the information of the Task Types / Attribute Categories / Project (without documents)



**Note:** if more than one project is exported with documents, then a folder is created for each project.

On importing of the project, one of the below options may occur.

- **Check whether the list exists:**

WebCenter will check whether the list already exists or not. This is done by using the name of the imported list. If the List doesn't yet exist, we will create a new List otherwise we will update an existing List.

#### Updating (overwriting) a List:

If the list preexists, WebCenter will check whether the table name used by the list matches the default WebCenter List table name pattern ("WC\_LIST...").

If it does, the list is deleted and a new List is created with the specified configuration.



**Note:** Import of the list may fail, if the lists are preexisting but unable to update to the current list since the table names are not matching in the database.

- **Creating new List:** If the list is not available in the target project, then a new List is created with the configuration found in the zip file.

### 3.27.3. Migrating other Data

From WebCenter 16 onwards, you do can do self-contained migration of Projects / Templates and individually migrate items.



**Tip:** When you migrate a Template or Project with the setup, the items are exported and imported in the correct order. We recommend that you do a [Project or Template](#) migration so that all items are exported in the right order.

#### Migrating Groups / Roles

You can migrate your groups along with their visibility and download permissions to a target WebCenter.

When importing **Groups**, the system will create Group(s) if it does not exist or update the Group when the Group exists.

Export of Groups contains:

- Basic Information like:
  - Group Name
  - Visibility Type ( All Project Managers/Specific Project Managers/Admin)
  - Members
  - Group Task Manager
- Group email including the address and language settings
- Notification settings
- Roles
  - Group is a Role setting
  - Roles, role invitations and assignments

Export of Groups does not contain:

- Role can add another Role



**Note:** All these will get exported when you do a [self-contained](#) migration.

- To **Export:**
  - a) Go to **Admin > Groups > Groups**. The Groups page appears.
  - b) Search for the required group name(s) or select from the list available and then click **Export Groups** in the **Action Header**.
  - c) Save the XML file generated (`ExportedWebCenterGroups.xml`) to your computer or a network location.

See a sample below:

```
<group_list>
  <group id="00002_0000000001">
    <deleted>0</deleted>
    <name>EA SPORTS</name>
    <empty_group>0</empty_group>
    <notify_group>1</notify_group>
    <group_email_address>email@test.com</group_email_address>
    <group_email_language>fr</group_email_language>
```

```

<group_vis_type>2</group_vis_type>
<is_role >0</is_role>
<user_members>
  <user>
    <name>USER</name>
    <group_manager>0</group_manager>
  </user>
</user_members>
<PM_with_visibility>
  <user>
    <name>JT</name>
  </user>
</PM_with_visibility>
<download_group_permission_list>
<download_group_permission view>
  <group id="00002_0000000011">
    <deleted>0</deleted>
    <name>EA SPORTS</name>
    <group_vis_type>2</group_vis_type>
    <is_role>0</is_role>
  </group>
  <download_format id="00002_0000000001">
    <deleted>0</deleted>
    <name>Native</name>
    <short_name>Native</short_name>
    <doc_type_id>00001_0000000001</doc_type_id>
    <enabled>1</enabled>
  </download_format>
  <download_group_permission id="">
    <deleted>0</deleted>
    <group_id>00002_0000000011</group_id>
    <download_id>00002_0000000001</download_id>
    <granted>0</granted>
  </download_group_permission>
...

```

- **To Import:**
  - a) Go to **Admin > Groups > Groups**. The Groups page appears.
  - b) Click **Import from XML** on the Groups page.
  - c) Click **Choose File** and then select the XML file.
  - d) Click **Import**. After the import completes, you can see a basic **Import Group Feedback**.

## Groups

Import Group feedback	
Number of Groups Created	1
Number of Groups Modified	0
Number of Groups Not Changed	0
Number of Groups Not Imported	0

[Return](#)
[Download Detailed Report in XML](#)

- e) Click the **Download Detailed Report in XML** link to download a detailed report of the import.





**Note:**

- If there are no visibility settings in the XML, the imported Group(s) will be visible to **All Project Managers**.
- The import will not create Users or Project Managers.
- The download permissions as specified in the Export XML will be granted to the Group(s).

### Migrating Restricted Sets

The import of Restricted Sets will overwrite the existing ones with the same name. This is similar to all other import functions.



**Note:** When you [export](#) Attribute Categories it will contain the Restricted Sets belonging to that Category.

- To **Export**:
  - a) Go to **Admin > Restricted Sets**.
  - b) Select the Restricted Sets to export and go to **Action Header > Export**.
  - c) Save the XML file generated (`exportRestrictedSets.xml`) to your computer or a network location.

The export will contain the following details of the exported Restricted Sets:

- Name
- Units



**Note:**

If the existing Restricted Sets (on the target system) have a different **attribute unit**, the import will not succeed in updating them.

- Values
- To **Import** to the target system:
  - a) Go to **Admin > Attributes > Restricted Sets**.
  - b) Click **Import** on top right.
  - c) Click **Choose File** and then select the XML file from your [export](#).
  - d) Click **Import**. After the import completes, you will see a basic **Import Restricted Sets Feedback**.
  - e) Click the **Download Detailed Report in XML** link to download a detailed report of the import.

### Migrating Attribute Categories

The migration of Attribute Categories will create new Attributes and Attribute Categories if they are not existing in the target system.

The **Export / Import of Attribute Category** contains:

- Basic info:
  - Name

- Description
- Layout
- Views
- Attributes:
  - List of Attributes
  - Name of the Attribute
  - Attribute Type
  - Visibility settings
  - Attribute Input Option: **Prompted / Calculated / Restricted**
  - Attribute Values
- All Document Reference Attributes with settings:
  - Bill Of Materials options
  - Versions / Revisions settings
  - Reference Category name and the Reference Category attributes



**Tip:** Export your Document Sources before the export of the Categories.

The **Export / Import of Attribute Category** does not contain:

- **To export Attribute Categories:**
  - a) Go to **Admin > Attributes > Attribute Categories**.
  - b) Select the attribute categories to export and go to **Action Header > Export**.



**Warning:** If your Attribute Categories were created in another version, it will ask you to re-save the Category. The message will appear as:

The following Attribute Categories cannot be exported because they are outdated. Open each Category and resave.

You also have to re-save the Categories when some Attributes are updated since the last Save.

- c) Save the XML file generated (exportAttributeCategory.xml) to your computer or a network location.  
See a sample XML below:

```
<category_list>
<category id="00002_0000011548">
<deleted>0</deleted>
<name>Griet Category</name>
<description></description>
<category_XML>XML blob describing the layout of the attribute category for the
different views</category_XML>
<!--Mapping between the attribute category and the attribute -->
<attribute_category_list>
<attribute_category id="00002_0000011549">
<deleted>0</deleted>
<attr_id>00002_0000000302</attr_id>
<category_id>00002_0000011548</category_id>
<display_order>1</display_order>
</attribute_category>
...
</attribute_category_list>

<!-- List of attributes in the selected category -->
<attribute_list>
<attribute id="00002_0000000302">
```

```

<deleted>0</deleted>
<name>GrietAtt1</name>
<description></description>
<attribute_unit_id>00001_0000000001</attribute_unit_id>
<restricted_set_id></restricted_set_id>
<restricted_set_name></restricted_set_name>
<default_expression></default_expression>
<type>l2</type>
<istask>0</istask>
<isdoc>1</isdoc>
<isproject>1</isproject>
</attribute>
...
</attribute_list>
</category>

<!-- List of the restricted sets used by the selected categories -->
<restricted_set_list>
<restricted_set id="00002_0000000001">
<deleted>0</deleted>
<name>Countries Imported</name>
<attribute_unit_id>00001_0000000001</attribute_unit_id>
<allow_manual>0</allow_manual>
<restricted_set_value_list>
<restricted_set_value id="00002_0000000004">
<deleted>0</deleted>
<restricted_set_id>00002_0000000001</restricted_set_id>
<value>Belgium</value>
</restricted_set_value>
...
</restricted_set_value_list>
</restricted_set>
</restricted_set_list>
</category_list>

```

• **To Import an Attribute Category:**

- a) Go to **Admin > Attributes > Attribute Categories > Import**.
- b) Browse to the XML file that you saved during [export](#) and click **Import**.



**Caution:**

- When importing Attribute Categories, existing Categories with the same name are overwritten. A warning message is displayed on the Import page.
- A warning message is displayed about the items that already exist.

- c) Uncheck the items that you do not want to import and click **Import**.
- d) You are redirected to **Import Dependencies** screen where all the imported content is shown. You have the option to overwrite the existing content or uncheck the content which you do not wish to import.
- e) Select **Enter Database Credentials** to specify if the WebCenter Database has to create a table or not. If yes, then the **Database User** name and **Password** have to be specified. Click **OK** for one of the options.
- f) When the import is finished, WebCenter shows the list of the content that is either updated or newly created with warnings.

### Migrating Task Types

You can migrate your Task Types with its settings.

When Importing Task Types:

- the Task Types will be created with the settings mentioned in the XML file when they do not exist in the target system. Dependencies to the task type including lists and categories are also imported.

If the document reference attributes of the imported categories/specifications have a reference category, the reference category is also imported.

- If the imported Task Types do exist, they will be updated with the settings from import XML.
- To export **Task Types**:
  - a) Go to the **Task Types > Types** page. Select the Task Type(s) to export and click **Export** .
  - b) Save the XML file generated to your computer or a network location.

**Export / Import of Task Types contain:**

- Basic Settings
- Task Document's settings
- Discussions with Settings
- Checklist items with Settings
- Views
- Specifications:
  - List and Order
  - Names
  - Type
  - Grid Layout
  - Visibility settings
  - Input Option: **Prompted / Calculated / Restricted**
- Values
- Document Reference Specifications:
  - Bill Of Materials options
  - Versions / Revisions settings
  - Reference Category name and the Reference Category attributes



**Tip:** Export your Document Sources before the export of the Categories.

- Workflow
- Task Status List with the icons ( 18.0.1 release onwards)
- Document Upload Settings
- To Import:
  - a) On the **Task Types > Types > Import from XML**
  - b) Click **Choose File** and then select the XML file that you saved during the export.
  - c) Click **Import**.
  - d) You are redirected to **Import Dependencies** screen where all the imported content is shown. You have the option to overwrite the existing content or uncheck the content which you do not wish to import.

### Import Dependencies

Import
Enter Database Credentials
Return

**Following items already exist on the system and will be overwritten!**  
To prevent this, uncheck the items before the Import.

**Lists**

- PCM\_Size
- PCM\_Seasonal
- PCM\_Output

**Categories**

- PCM Reference Properties ACat

**Following items will be created in the system**  
Uncheck the items that you do not want to import.

**Lists**

- PCM\_Flavour
- PCM\_Container

**Task Types**

- PASH Copy ATTR Values --

- e) Select **Enter Database Credentials** to specify if the WebCenter Database has to create a table or not. If yes, then the **Database User** name and **Password** have to be specified. Click **OK** for one of the options.
- f) When the import is finished, WebCenter shows the list of the content that is either updated or newly created with warnings.

### Migrating Workflows

You can export a Workflow from a Task Type to an XML file and migrate it to another Task Type either on the same system or a target system.

- To export:
  - a) On your Task Type's **Workflow** tab, click **Export Workflow**.
  - b) Save the XML file generated to your computer or a network location.
- To import:
  - a) On your Task Type's **Workflow** tab, click **Import Workflow**.
  - b) Browse to the XML file that you saved and click **OK**.

- c) A note of caution asks you if you are sure that you want to overwrite the current Workflow. Click **OK**.



**Note:** You will get the following message:

Not all the items in the Workflow are available on this WebCenter when the Task Types linked in the workflow are missing.

## 4. User Guide

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### 4.1. Copyright Notice

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## 4.2. Getting Started with WebCenter

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Use WebCenter to search for information and manage projects. Anyone can search for information, but only Project Managers can manage projects. This document includes documentation for the most common and often-used features, but you will find other features and abilities as you explore the site.

### 4.2.1. Opening WebCenter

1. Open your web browser and navigate to [http://yourservername/WebCenter\\_Inst](http://yourservername/WebCenter_Inst) or the URL that your system administrator has provided.





**Note:**

- On a PC using Microsoft Windows, Microsoft Edge or Mozilla Firefox or Google Chrome are supported for use with WebCenter.
- On Mac OS X, Safari, Mozilla Firefox and Google Chrome are supported for use with WebCenter.

2. Once the page loads, enter your user name and password in the appropriate fields and click **Log In**.



**Note:**

If your administrator has enabled this, you can click the **Forgot Password?** link in the **Log In** page if you can't remember your password.

Enter your **Username** or **E-Mail** address in the pop-up that opens, and click **Request New Password**.

You will then receive an e-mail with a temporary password and a link to the **Log In** page.

After logging in, you will be asked to change your password.

The start page defined by your administrator appears (this is generally your **My Work** page).







**Note:** You can later change the contents of your start page.

Task	Assignee	Previous Assignee	Status	Due Date	Started	Project
Translate & Approve French - France	PCM_TRANSLATION AGENCY Pond, Amy (AMY) ADMINS		<span style="color: green;">✔</span>	Apr 26, 2016 at 11:40 AM	Apr 26, 2016 at 11:40 AM	PCM Template Library Update 00056
PCM Translation Flow	Oswin Oswald, Clara (CLARA)		<span style="color: green;">✔</span>	Apr 26, 2016 at 11:40 AM	Apr 26, 2016 at 11:40 AM	PCM Template Library Update 00056
New Text Flow	Oswin Oswald, Clara (CLARA)		<span style="color: green;">✔</span>	Apr 26, 2016 at 11:39 AM	Apr 26, 2016 at 11:39 AM	PCM Template Library Update 00056
PCM Translate POA	Oswin Oswald, Clara (CLARA)		<span style="color: green;">✔</span>	Apr 26, 2016 at 10:23 AM	Apr 26, 2016 at 10:23 AM	PCM Artwork Library Update00048

## 4.2.2. Understanding the WebCenter Page Layout

### Header

The top right of the WebCenter page always shows:

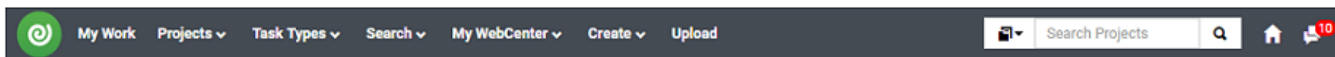
- the name of the current user,
- a  icon to go back to the user's start page,
- a  Discussions icon which indicates the unread messages and redirect to My Discussions. You can view all discussions related to Project or Document or Tasks that you are involved in. For more details, refer to [Discussions in WebCenter](#) on page 827
- the Cart ,
- Avatar  icon displays the user initials (first letter of first name and last name), or an image, if any is uploaded in the User page.



- a link to the WebCenter **Welcome** page,
- **Admin** (if the user is a member of the Admins group),
- **Contact**,
- **Logout**.

### Top Menu Bar

By default, the top menu bar contains the following menus: **My Work**, **Projects**, **Task Types**, **Search**, **My WebCenter**, **Create** (if you are a Project Manager) and **Upload** (see [The Default WebCenter Menus](#) on page 566 for more details). An administrator can customize the menus.

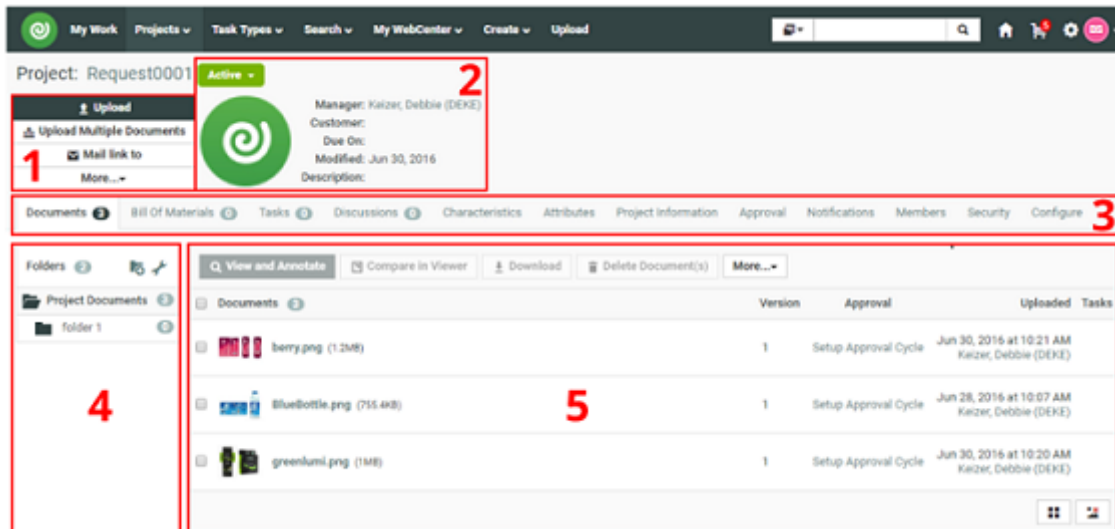


If you have the optional Task Management module and the **User Can Create Task Type** permission, **Task Types** also appears in the top menu bar.

### Documents Pages

Below is a sample of project's **Documents** page, in grid layout, for a user who is a Project Manager.

**Area 1** is the project actions area, allowing you to perform actions on the whole project (for example, mail a link to the project to a reviewer, add the project to your favorite projects...)



- **Area 2** is the Project Details area, containing the project icon, the name and description of the project, the project status...
- **Area 3** shows links to the project pages. For example, click **Members** to view the project members. The page you are on is shown in bold.
- **Areas 4** and **5** are part of the content pane, that changes depending on the project page you are on. Here, on the **Documents** page, they show the project folders and documents.
- **Area 4** is the Folders pane, showing the projects folders. Click a folder to see the documents it contains.
- **Area 5** is the document pane, that can show the documents in a list or grid view, with or without thumbnails.

**Notes**

- To act on many documents at once, select their check boxes and then choose an action in the **Actions** menu.
- To select all documents in the current folder, select the check box before the **Documents** header.
- To switch to a list layout, click **Show as List**.
- Hovering over a thumbnail shows a larger version of it in a pop-up window.

For Graphic documents viewable by the WebCenter Viewer, you can click the zoom icon to show an even larger thumbnail (500 x 500 pixels). This is applied to all Graphic documents on which you hover until the page is reloaded.

The pop-up window closes when you move the cursor off the thumbnail.

There is usually more than one way to accomplish a task by using a combination of menu entries, action menus, and clicking status messages. Many methods will lead to the same result.



**Note:** This layout is the default layout. However, your layout might be different depending on your customization.

### 4.2.3. The Default WebCenter Menus

#### My Work

##### What is displayed?

Your **My Work** page lists the documents waiting for your approval, as well as the Tasks assigned to you, or to a group you are in.

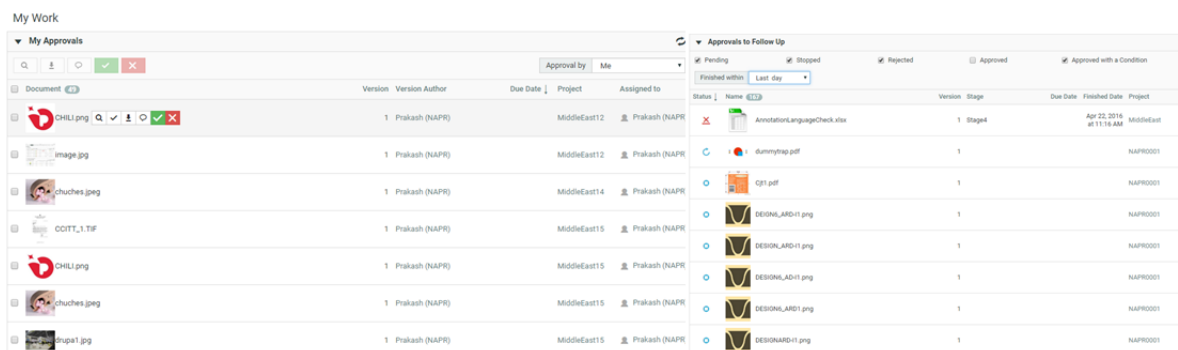
Documents that are overdue have red due dates. Documents whose due dates are within the next day have orange due dates, and documents that have far-off due dates have gray due dates. You can also view the **Discussions** and messages in the discussions that you are part of, if you have chosen to view discussion in **My Work** page.



**Tip:**

If you have a long list of items to attend to, use the filter options in each panel: for example you can limit the display to items assigned directly to you (**Me**), to one of the groups you are in (**A Group I Am In**), or both (**Me or Group I Am In**).




If you are an **Approval Master**, you can filter the approvals you need to follow up by status (for example, to only show the approvals still **Pending**), by due date, etc.



##### Working from My Work page

- Click a document name to go to the document, or click the project name to go to the project. Note that the behavior may be different in case you are using a **simplified My Work** page.
- To load multiple documents into the Viewer, select their checkboxes and click **View and Annotate** in the actions menu.

You may then navigate between the documents by using the controls in the Viewer header.

- To approve, reject or comment multiple documents, select their checkboxes, and click ,  or  (choose a status that applies to all the documents you selected).

In the pop-up that opens, enter your comment (if applicable) and your password (if required by your server) and click **Commit**.



**Note:** For Page List documents, the My Work page also displays the number of pages that have already been approved, as well as the total number of pages.

### Indirectly Assigned Group Tasks

If you are a Group Representative, you will be the preferred assignee when a Role is assigned to this Group. So the related approvals and tasks appear in your **My Approvals** or **My Tasks** sections on My Work page.

When the Group Representative is absent, any of the Group Members can do the tasks on his or her behalf. To do this,

1. Go to **My Work > My Approvals > / > My Tasks**.
2. Click on the drop down **Documents waiting for Approval** and select the **Me Indirectly** option.

When you select this an additional drop down **On Behalf Of** will be displayed.

3. Select the Representative on whose behalf you are approving the document or doing the task. All Documents / Tasks to which he / she is assigned through a Role or on behalf of a Group are loaded in this page.

You can now do the Approvals from the **My Approvals** section.



**Note:**

Project History will indicate that those **Approvals / Tasks** were executed on behalf of the Role that is represented by the Group.

To know more about how to setup your **My Work** page, read [My Work Setup](#) on page 567

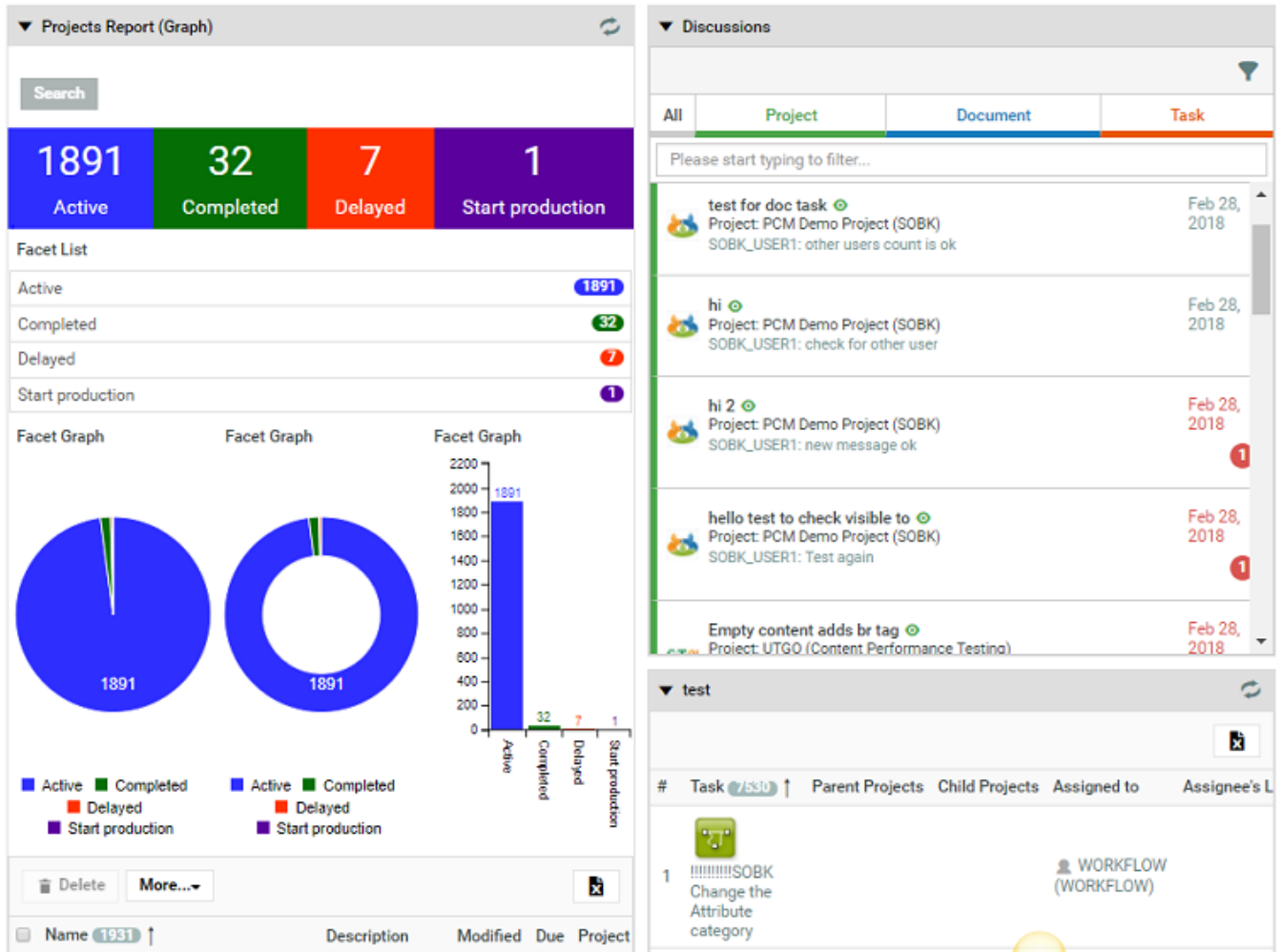
### My Work Setup

This is where you can customize your **My Work** page. To do this, click **My Work > Edit My Work Setup**. Select the blocks you want to be displayed and drop it to **My Work** panel.

My Work

[Edit My Work Setup](#)

This text can be translated



The screenshot displays the 'My Work' dashboard. On the left, the 'Projects Report (Graph)' shows a summary of project statuses: 1891 Active, 32 Completed, 7 Delayed, and 1 Start production. Below this is a 'Facet List' and three 'Facet Graph' visualizations (two donut charts and one bar chart). On the right, the 'Discussions' section lists messages with details like project names and dates. Below the discussions is a 'test' section with a task list.

You can also select **Show simplified My Work page** (with no links to projects or documents) or you can choose **Reset to Default** option. To know more about My Work page set up, read [Edit the Default My Work Page](#) on page 128

Click **Save** when you are done.

Admin users can now create Dashboards with **My Work** context, which are suitable for all users. These dashboards are visible in the gallery, **My Work (custom)** category.

You can drag the Dashboards block from the gallery to the **My Work** Dashboard. You can switch the selected Dashboard to another Dashboard with the **My Work** context, in the configuration panel.

**Projects**

The **Projects** menu contains the following menu items:

- [Favorite Projects](#) on page 569,
- **Projects** (shows all projects visible to your user),

- [Projects I Am Invited to](#) on page 570,

If you are a Project Manager, you can also see:

- [Projects I Manage](#) on page 569,
- [Create Project](#).

### Favorite Projects

**Favorite Projects** shows those projects for which you have clicked **Add to Favorites** in the project's **Actions** menu.

The Favorite Projects' **Actions** menus contains **Remove from Favorites**, **Add to Cart**, and **Update Project(s)**.

- Filter the list of projects by entering a filter in the **Show Projects** field, or by changing the value in the **Modified** list, and clicking Go.
- To sort the list of projects, click the column header of the field on which you want to sort. For example, click the Created column header to sort on project creation date. This preference is saved in your profile, so it will become your new default sort option.
- To **view** a project, click its name.
- **Add to Favorites** adds the selected projects to your list of Favorite Projects.
- The **Cart** lets you download multiple projects or documents at once, and also lets you e-mail links to projects and documents. The recipients must have user names and passwords for your WebCenter site in order to view the information when they click a link. The Cart retains its contents only until you close the browser window or until you log off.
- **Update Project(s)** checks the version of each visible document in the selected projects and updates each document to its latest version if needed.

To remove a project from the Favorite Projects list, select it and click **Remove from Favorites** in the **Actions** menu.

### Projects I Manage

**Projects I Manage** shows those projects for which you are the Project Manager, or which are managed by a group of which you are a member. It only appears in the menu if you are a Project Manager (either individually or through your group memberships).

In the **Actions** menu are **Delete**, **Update Project(s)**, **Add to Favorites**, **Add to Cart** and **Change Manager**.

- Filter the list of projects by entering a filter in the **Show Projects** field, or by changing the value in the **Modified** list, and clicking Go.
- To sort the list of projects, click the column header of the field on which you want to sort. For example, click the Created column header to sort on project creation date. This preference is saved in your profile, so it will become your new default sort option.
- To **view** a project, click its name.

- **Add to Favorites** adds the selected projects to your list of Favorite Projects.
- The **Cart** lets you download multiple projects or documents at once, and also lets you e-mail links to projects and documents. The recipients must have user names and passwords for your WebCenter site in order to view the information when they click a link. The Cart retains its contents only until you close the browser window or until you log off.
- **Update Project(s)** checks the version of each visible document in the selected projects and updates each document to its latest version if needed.

**Delete** deletes the selected projects.

To have somebody else manage one of your projects, select the project, click **Change Manager** in the **Actions** menu, then select the new Project Manager and click **Finish**.

### Projects I Am Invited to

Projects I am invited to shows all the projects of which you are an invited member.

In the **Actions** menu are **Add to Favorites**, **Add to Cart**, and **Update Project(s)**.

- Filter the list of projects by entering a filter in the **Show Projects** field, or by changing the value in the **Modified** list, and clicking Go.
- To sort the list of projects, click the column header of the field on which you want to sort. For example, click the Created column header to sort on project creation date. This preference is saved in your profile, so it will become your new default sort option.
- To **view** a project, click its name.
- **Add to Favorites** adds the selected projects to your list of Favorite Projects.
- The **Cart** lets you download multiple projects or documents at once, and also lets you e-mail links to projects and documents. The recipients must have user names and passwords for your WebCenter site in order to view the information when they click a link. The Cart retains its contents only until you close the browser window or until you log off.
- **Update Project(s)** checks the version of each visible document in the selected projects and updates each document to its latest version if needed.

### Task Types

You will only see this menu if you have the Task Management license. See [Task Management in WebCenter](#) on page 832 for more information.

### Search

#### Searching Content in WebCenter

When searching for projects or documents, you can use normal searching or keyword searching.

The normal method searches more fields than keyword searching, but keyword searching may be more useful when you know less about the desired results.

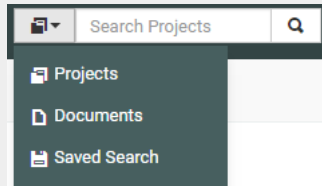
Both are accessed by clicking **Search** in the main menu.





**Tip:**

Keyword searching is also available in the header of every WebCenter page, at the top right under **Welcome, Contact, Logout...** You can search for **Projects, Documents** or **Saved Searches** in this search bar.



By combining with the **OR** keyword, you can also search for properties which are empty have a specific value, **EMPTY OR** some value.

**Normal Searching**

1. In the **Search** menu, click **Projects, Documents** or **Tasks and Approvals**, depending on what you want to search.
2. When using **normal searching**, you see multiple fields to fill in. Click **Keyword Search** to search on keywords alone.

To switch from keyword to normal searching, click the **More options** link.

3. Enter search terms in the fields as desired.



**Note:**

- To search for **Documents** or **Projects** based on attributes:
  - click the **Attributes** link,
  - select the **Attribute Category**,
  - specify the values of the **Attributes** you are searching for,
  - and click **Add** to return to the **Search** page.
- To search for **Documents** or **Projects** based on **characteristics**:
  - click **Characteristics**,
  - select the desired items in the characteristics tree or **Find more characteristics**.

You can choose to search on **any of** or **all of** the items selected. Click **Add** to return to the **Search** page.

Searching on attributes and characteristics is available only using normal searching.



**Tip:**

You can search for documents based on their **Approval Status**: select either a single approval status or:

- **All Approved** to select documents with any approved status (**Approved**, **Approved with comments**, **Force Approved** or **Force Approved with comments**).
- **All Rejected** to select documents with any rejected status (**Rejected** or **Force Rejected**).
- **All Completed** to select documents with any approved or rejected status.



**Tip:**

You can search for document **revisions**. The **revision** field can be shown in the search results and can be used to sort the results.

You can search for revisions only if your administrator has set this up for you. Read about this in [Configure Search Crawler Setup](#) on page 423.

You can specify the **revision** you want to search for from the drop down. Select:

- **Latest Revision** to search the latest revision of the document you are searching for. Only the latest revision will appear in the results. A document can appear multiple times in the search results if multiple versions are linked to different projects.



**Note:**

The search results will show only the document revisions linked to at least one project. If a version is linked to a project, all the revisions prior to that can be found in the search.

For example, a document has three revisions (Base- versions 1, 2 and 3; Revision A- versions 4,5 and 6 and Revision B-version7).

If the revision indexing is not enabled, the search will find only version 7 if this is the only version linked to a project currently. When revisions are indexed, all the latest versions of the previous revisions will appear in the search results. The search will find version 3 (Base), 6(A) and 7(B).


- **All Revisions** to display all revisions of the document.
- **Base Revision** to search for the first revision of the document.
- **Specific Revision** and specify the revision letter in the field.



**Tip:**

**Searching based on Project Status:**

You can specify **Project Status** as a criteria in Project Search. To do so, select the **Project Status** from the drop down. Read more in: [Searching based on a Project Status](#) on page 184

To type in a custom value (or to use wild cards /AND/ OR etc.) click the edit  button.



**Tip:** When you are searching for **Tasks** based on task specifications:

- click on the link **Task Specifications** and start typing the name of the specification
- or select from the drop down listing all specifications.

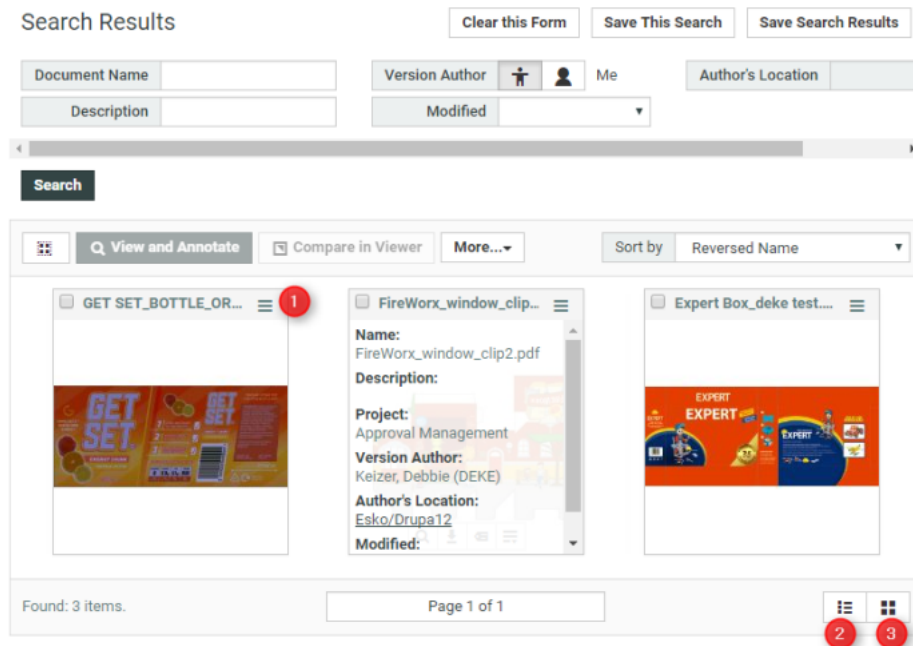
4. Use the [Search Results Options](#) to determine what you want to see in your search results and in what order.
5. You can also:
  - clear all fields: click **Clear this form**.
  - save the search query for future use (see [To Save a Search](#) on page 582).
6. Click **Search** to search using the criteria you entered.




**Note:** For normal searches, WebCenter searches all the fields available on the **Search** page. Each document type in the **Search for** list has different searchable fields.

The **Search Results** page shows your results.

- You can view your Project search results in a **List** or a **Grid** or a **Card**, and choose to view the thumbnails or not.
- Task and Approval Searches can be viewed only as a List
- Document searches can be viewed as **Card** or **List** or **Grid**.



When using **Card** search, you have a catalog like view of your Documents. To view the related information, click .

The number of items displayed in Card, List or Grid is set in [Preferences](#).



**Note:**

It is possible to configure a specific Saved Search to always show up as card view in the Search Results Layout options.

The Card style Search provides a new way of displaying Document Search results. The new Card style is more image-centric and allows to hide additional metadata initially.



**Note:** Search results display only projects or documents for which you have **View** permission.

**Use Basic and Advanced Search Character**

**Basic Search**

You can type in multiple words separated by spaces when searching and generally these words do not need to be in a particular order. However, when in Document, Project, Template and Task names or Attribute related fields, the order of the words is respected.



**Remember:**

If there are no search characters (\* ? " ), basic or advanced, the search adds stars (\*) around every word. The results will show anything that starts, ends or contains the word you are looking for. Text attributes have an exception that the stars are not added automatically.

For example, if you search for box company, it will return results which include both words but it could also find boxed instead of box.

The basic search characters \*, ?, NOT, OR, AND, EMPTY, "" are always available when searching.

**Searching with NOT** You can use either **NOT myvalue** or **\*NOT myvalue\***

**Search AND /&& , OR /|| , NOT operator priority order**



**Note:** If you have a saved search before WebCenter 20, where you use a combination of AND, &&, OR, || or NOT without brackets in a single filter, then you might need to add brackets to get the same behavior as before.

The new operator order is:

1. NOT
2. AND / multiple parts without operator (implicit AND)
3. OR

**Example:**

EMPTY OR "esko webcenter" NOT test AND production will become: (EMPTY OR ("esko webcenter" AND (NOT test) AND production))

In the example, first the part with NOT is executed, then executes everything next to each other (including AND, words, wildcards and parts surrounded by quotes) and combine those parts with AND. Lastly both sides of the OR are compared, to return the documents that match any of the two sides. Add brackets to influence the order of execution.

**See other examples below:**

box company

The search results will contain both box and company in no specific order. The results may also contain boxed.

If you would like to search for a string with multiple words, type them with a space in between them. The order is not important. The search will return results containing both words.

"box company"

If you need the words to be exact (so not sub-strings) and to be in a particular order, use "" around the words.

box comp\*


If you want to only find results for prefix or suffixes, you can use stars. The search will only look for the substrings for the words where you added a \*.

A search with box comp\* will find "company" and "box" but will not find "boxed".

com?any

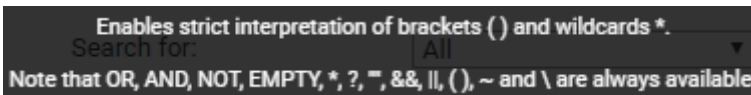
Use ? as a placeholder for an unknown character.

The search will not find substrings when you use ? .

box OR company	<p>A search with com?any will find "company".</p> <p>If you don't need the results to contain all words but want to find results that contain any of them, use OR (uppercase!).</p> <p>The example will find results that contain "box" or "company" (or both).</p>
box AND company	<p>Use AND to combine words in the search.</p> <p>The example will find all results containing both "box" and "company".</p>
box NOT company	<div style="border: 1px solid gray; padding: 5px;">  <b>Note:</b> This is the default behaviour when you type in two words together.         </div> <p>Use <b>*NOT</b> to exclude results that contain the term after the <b>NOT</b> from the results.</p> <p>For example you want to find all documents containing box but not company.</p>
EMPTY	<p>You can search on the keyword <b>EMPTY</b> which allows you to search for any documents, projects or tasks where some text attribute or other text property is not filled in.</p> <p>For example, to search for projects that are not created from a template, search with keyword <b>EMPTY</b> on the <b>Project Template</b> field.</p> <div style="border: 1px solid gray; padding: 2px;"> <span>Project Template</span> <input type="text" value="EMPTY"/> </div> <p>By combining with the OR keyword, you can also search for properties which are empty or have a specific value.</p>

### Advanced Search

If you want to perform a more precise search, enable **Use Advanced Search Characters**.



**Note:**

When using the advanced search characters, the search won't include the sub-strings. If you would like sub-strings to be included, add \*.

(box company) OR (apple raspberry)	<p>Use ( ) to group queries. This example search will find all documents containing box and</p>
------------------------------------	---

<p>company~0.9</p>	<p>company along with all documents with apple and raspberry.</p> <p>Use ~ after a word to find words which might contain typing errors.</p> <p>In the example, the search will find all words that have a 90% match with "company". This will also find "company" or "company".</p>
<p>"company boxes"~3</p>	<p>Combine "" and ~ to search for words in a particular order with some flexibility.</p> <p>The example search will find "company" and "boxes" in that order with up to 3 other words between them. It will find "company that produced boxes".</p>
<p>Jean\ -Luc or "Jean Luc"</p>	<p>If you need to search for a special character, you can use "" around it. You could also escape the special character with the "\ " character like: Jean\ -Luc.</p>
<p>box &amp;&amp; company</p>	<p>&amp;&amp; does the same as AND,    does the same as OR.</p>

### When Advanced Search Character option is OFF

When the option **Advanced Search Character** is not chosen, the search will try to guess whether you want to use a special search character or not.

For brackets for example, typing: **Esko (Belgium)** will still search for the text "Esko (Belgium)" (brackets are interpreted as text).

However, searching for **(Esko (Belgium) OR Esko (Spain)) AND WebCenter** will consider the first and last brackets as special characters to group the OR while the other brackets are considered text.








**Note:** When searching for Attribute values, the strict interpretation of **Advanced Search Characters** is always on.

### Search Result Options

Use the **Search Results Options** to determine what you want to see in your search results and in what order.

## Search for Projects

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

		Search Results Options				
		View	Column Order	Editable	Sort	Order
<input type="checkbox"/> Use Advanced Search Characters 						
<input type="checkbox"/> Search Panel Design	<input type="checkbox"/> Enable SmartNames 					
Project Name	<input type="text"/>	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1 ▲
Description	<input type="text"/>	<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Project Status	<input type="text"/>	<input checked="" type="checkbox"/> 	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Project Calendar		<input type="checkbox"/> 				
Created	<input type="text"/>	<input type="checkbox"/> 			<input type="checkbox"/>	
Started	<input type="text"/>	<input type="checkbox"/> 			<input type="checkbox"/>	
Modified	<input type="text"/>	<input checked="" type="checkbox"/> 	4		<input type="checkbox"/>	
Due	<input type="text"/>	<input checked="" type="checkbox"/> 	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Completed	<input type="text"/>	<input type="checkbox"/> 			<input type="checkbox"/>	
Duration	= <input type="text"/> +/- <input type="text"/> days	<input type="checkbox"/> 			<input type="checkbox"/>	
Time Left	= <input type="text"/> +/- <input type="text"/> days	<input type="checkbox"/> 			<input type="checkbox"/>	
Project Status Started	<input type="text"/>					
Project Status Due	<input type="text"/>					
Project Status Completed	<input type="text"/>					
Project Status Duration	<input type="text"/>					
Project Status Time Left	<input type="text"/>					
Customer/Location	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>	
Salesperson	  <input type="text"/>	<input type="checkbox"/> 		<input type="checkbox"/>	<input type="checkbox"/>	
Project Creator	  <input type="text"/>	<input type="checkbox"/> 			<input type="checkbox"/>	
Project Manager	   <input type="text"/>	<input checked="" type="checkbox"/> 	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

### View








Select the information you want to see when viewing the results.

For example, when selecting **Description**, **Created** date and **Project Manager** (the **Project Name** is always shown), your results are displayed as below.



Search Results Save This Search Save Search Results


Delete
  Change Due Date
  Change Project Manager
  Change Project Status

<input type="checkbox"/> Name ↑	Description	Modified	Due Date	Manager
<input type="checkbox"/>  Briefing_mgolpcm (01)		May 31, 2016		Graca Oliveira, Miguel (MGOL)
<input type="checkbox"/>  Briefing_PDCO PCM (01)		May 31, 2016	May 31, 2016	Da Costa, Patrick (PDCO)
<input type="checkbox"/>  Briefing_PDCO_PCM01 (01)		May 31, 2016		Da Costa, Patrick (PDCO)
<input type="checkbox"/>  PCM Artwork Library	This project contains all the artworks.	May 17, 2016		ADMINS <Group>
<input type="checkbox"/>  PCM Template Library	This project contains all the artwork templates.	May 20, 2016		ADMINS <Group>
<input type="checkbox"/>  PCM Text Library	This project contains all the text content files.	May 17, 2016		ADMINS <Group>
<input type="checkbox"/>  PCM Text Templates	This project contains all the content documen (...)	May 4, 2016		Daemen, Karsten (KADA)

Found: 7 items. Page 1 of 1



**Note:**

If the Administrator has enabled **Editable** items, you get an Edit  button next to the selected items in the List View.

You can also show the time in the search results for the **Project Due / Modified / Created** dates by enabling **Show time in search results**.

**Column Order**

Use the **Column Order** column to define how to display the information for each Project found: enter numbers to order the columns (in **List View**) or the text under the project icon (in **Grid View**).



**Note:** The first column is always the **Project Name**.

**Sort**

Use the **Sort** column to define how you want your results sorted. First click the check box of the first sorting criterion, then the check box of the second, etc. WebCenter shows numbers indicating the sorting order.

For example, if you want your results to be sorted first by Project Manager then by date created, first click the **Sort** check box for **Project Manager** (this shows a **1** beside it), then the **Sort** check box for **Created** (this shows a **2**).

Read more about sorting in [Sorting Search Results](#) on page 210.

**Order**

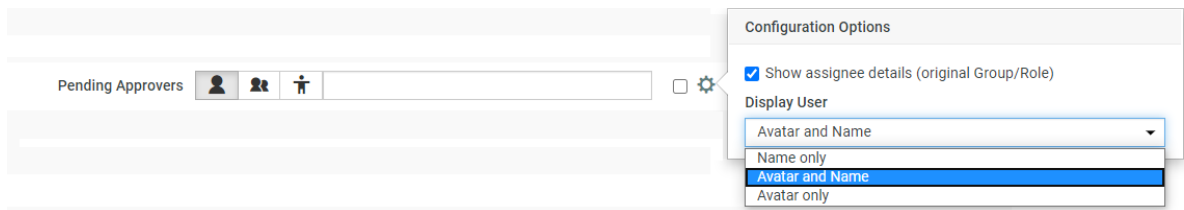
The order column shows the sorting order (**1, 2...**) but also allows you to sort by **ascending** or **descending** order.

- Ascending order ↑ sorts **from A to Z** (for alphabetical fields like **Project Name**) and **from old to new** (for chronological fields like **Created**).
- Descending order ↓ sorts **from Z to A** (for alphabetical fields) and **from new to old** (for chronological fields).

### Configuration Options

#### Display User

To enable the navigation and filtering for specified users in the search results, you can choose to configure fields like **Project Manager**, **Project Creator**, **Sales Person**, **Version Author**, **Pending Approver** in the **Search Results Options**. You can choose to show the results either as **Name** or **Avatar and Name** or **Avatar only**.



Similarly for Task Status, you have an option to show the results as Label only or Icon only or Label and Icon in the search results.

#### Sorting Search Results

You can sort the **search results** in the **List / Grid** view based on sort-enabled search columns.

##### In the List Layout:

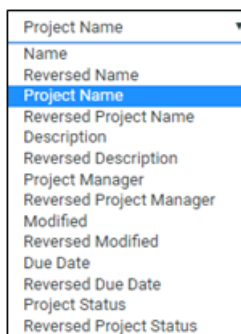
You can click on the primary sort field header ↑ / ↓ to switch between ascending and descending. All sortable fields will have the sort icon next to their header text.

To change the primary sort field, click on the sort icon next to it.

- Up arrow ↑ in the column header indicates that the results are sorted on this field in ascending order. To sort the results in the reverse order, click ↓.
- Down arrow ↓ indicates that results are sorted on this field in descending order. To reverse the order, click ↑.

##### In the Grid Layout:

If the search results are in the **grid layout**, you will see a drop down with sortable fields instead of the sort icons.



For example, sorting by **Name / Reversed Name** will make the name field in the ascending or descending order.



**Note:**

The configured *sort fields* will be applicable in both the **grid** and **list** layouts.

You can navigate to the page number you want by typing the page number in the footer. If there is only one page to show the results, then there is no footer shown.

**Keyword Searching**

You can use the Search setup page to search based on a vast array of parameters. However, it is also possible to search using a single **Keyword**.

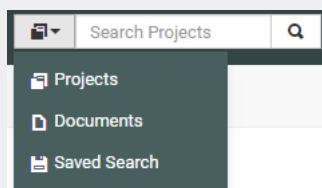
It is also possible to setup a Keyword search in the Search Panel. This is useful when you want to create Saved Searches with a Keyword field.

- The easiest way to access the search is using the top right menu bar. Enter the terms to search in this **Keyword Search** field.



**Tip:**

Keyword searching is also available in the header of every WebCenter page, at the top right under **Welcome, Contact, Logout...** You can search for **Projects, Documents** or **Saved Searches** in this search bar.



- Alternatively, in the **Search** menu, click **Projects, Documents** or **Tasks**, depending on what you want to search. From the normal Search page, you can use either:
  - the **Keyword Search** link.
  - or the **Keyword** field.
- Click the link **Try Keyword Search** to get a simplified page.
  - a) When using keyword searching, you see the **Keyword Search** field.

- b) Type in your **Keyword** and click **Search**.
  - For keyword search of projects, WebCenter searches the project name, project description, project characteristics, the modification date, and text attributes.
  - For keyword search of documents, WebCenter searches the document name, document description, document characteristics, project names, approval status, and text attributes.
- c) Click **Search** to search using the keyword(s) you entered.
- If you'd like to use SmartNames in the **Keyword** field or if you want to create a Search Panel with the Keyword field, use the Normal Searching page.

The **Search Results** page shows your results. If you want to save the search, click **Save Search As...**

Alternatively, you can choose **Save Results to Excel** to download your search results in excel format.

You can choose your desired view of results by clicking **Show as List, Show as Grid, Show Thumbnails** or **Hide Thumbnails**.



**Note:** Search results display only projects or documents for which you have **View** permission.

### Advanced Searches

Use the **Search** menu to search content in WebCenter. You can search for:

- **Projects**
- **Documents** including their **revisions**.
- **Tasks**
- **Reports**

You can create **Saved Searches** based on your chosen search criteria. If you are an administrator, you can create advanced asset browsers this way. Read in [Searching and Browsing Assets](#) on page 584

#### To Save a Search

1. In the **Search** menu, click **Projects, Documents** or **Tasks**, depending on what you want to search.
2. Define your search criteria.

For more information, see [Search](#) on page 570.

3. Click **Save Search As** and the search results are downloaded in the excel format.

The **Save Search** page appears.

Alternatively, you can also **Save Results to Excel** .

4. Do one of the following:
  - To create a new saved search, type a **Name** for the saved search.
  - To update/change an existing saved search, select it from the **Your previously saved searches** list.
5. Administrators have to select one of the following **Search scope** options (other users can only save personal searches):
  - **Personal**, if only you should be able to see this saved search.
  - **Global**, if all users of the system should be able to see this saved search.
6. Click **Save**.

You can read more about working with Saved Searches in [Creating Advanced Saved Searches](#) on page 193.

After editing an existing Saved Search, click **Save** to update the search and **Save As** to create a new Saved Search.

### Downloading Search Results

You can download the results of your search as an Excel file (.xls).

1. In the **Search Results** page, click **Save Search Results**.
2. In the pop-up that opens, choose to **Open** the resulting Excel file in your spreadsheet application, or **Save** it to your hard disk.

When the **Save Search Results** are generated to save in an Excel, a progress indicator is shown on the button. This feature is currently not available in Safari Browser.

### Creating Advanced Saved Searches

Normal and keyword searches may be saved for future use as a **Saved Search** and can be plugged into menu items (of the main menu or Project details menu), **My Work** and as a document source during project creation and in document referencing.

To access saved searches, click **Search > Saved Searches**. Shown below is a sample Saved Searches page.

Searches can be saved as:

- a **Personal** search visible only to the individual user.
- a **Global** search visible to all WebCenter users.

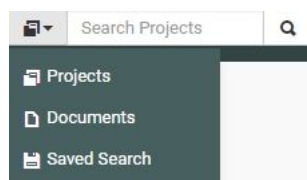





**Note:**

1. For each Global Saved Search, an Administrator can determine a set of Groups/Companies/Locations whose members can view this Saved Search.
2. It is not possible to set Visibility for Personal Saved Searches.


Saved Searches can be configured with advanced [Drilldowns](#) and extensive and visually enhanced [Dashboards](#). You can plug these

- To execute a Saved Search, simply click its name from the **Saved Searches** page. Or select it from the Search window in the menu bar.




- To edit a saved search, click  **Edit Search**.
- To **Make Search Personal**, click 
- To **Make Search Global**, click 

**Smart Names** enabled Searches do not have the **Make Search Personal** option.


- To create Global Saved Searches dedicated to a company or group, click **Edit Visibility**  link. In the next window, select the **Available Groups, Available Companies/Locations** to whom you want to give the exclusive visibility. In this case, if you assign the visibility to a group, a company or location, the search will be visible to either the group or the company or both.


Visible to all  
 Visible to selected Groups and Companies

Available Groups

Please select or start typing... 

Available Companies/Locations

Please select or start typing... 

All Locations 

**Add**



**Note:**

If you select a company without specifying any of its locations, all the company locations will be able to access the saved search.

If you remove the **Available Groups/Companies /Locations**, the visibility settings will be modified.

- To delete saved searches, select them and click **Delete**. Use **Select All** and click **Delete** to delete all of them.

**Running Reports**

You can run pre-configured reports from the **Search** menu if your Admin has given you access to these reports (see the Administration Guide for more information).

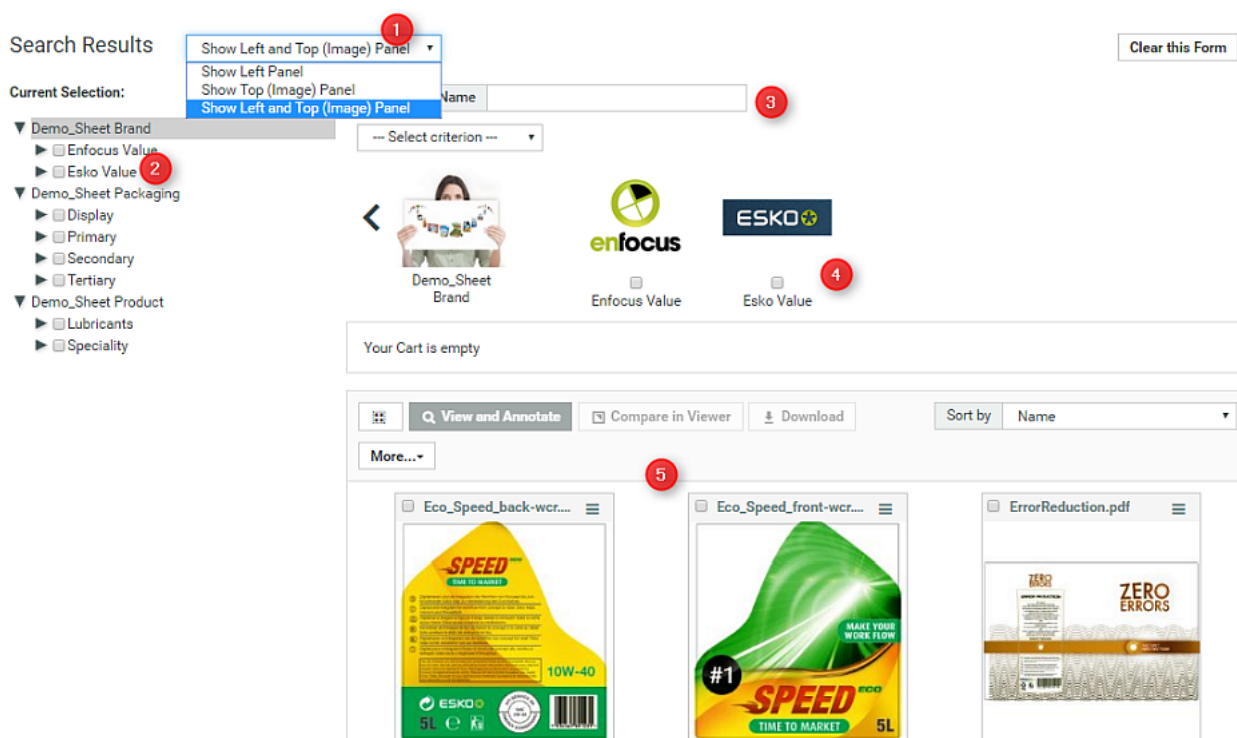


**Note:** This only includes system-wide reports. [Project reports](#) are available from within the project.

1. Go to **Search > Reports**.
2. Click on the desired report name on the **Reports** page.
3. If the report requires parameters, the **Run Report** page appears. Specify the report parameters (the mandatory parameters are marked by an \*) and click **Run Now**.

**Searching and Browsing Assets**

The asset browser is a user-friendly feature to search and find assets in a large collection of WebCenter assets. The administrator can customize the Asset Browser into a Menu for easy access. You can use the configured Asset Browser to browse for assets stored in the WebCenter.



In the Asset Browser you can:

1. Select the browsing options in the Asset Browser. You can choose to see the left Panel (the browsing tree) or the top panel (with images). You can also choose to have both options.
2. Browse the tree(s) on the left panel to select the items based on the visible attributes.
3. You can use the options in the Search Panel at the top to refine the Asset Browsing (Searching) results in addition to the tree selection.
4. If you opted for the image panel, you can browse through the image representations.
5. Select the assets from the results to download or view them (by clicking the **Actions** menu).

You can select the assets and start actions directly from the action list menu if you have all the assets that you need in one single page. You can download the assets, view them or start a new projects with the selected assets from action list.

If the Cart is configured in the Asset Browser, you can use it to collect items from several rounds of searching. You can then download or start with a new project from the Cart.

### Tree Browsing in the Asset Browser

You can see an example for tree browsing in Asset Browser below.

Search Results Clear this Form

Current Selection:



- SAS\_Master Data ~ Design ~ Esko ~ DeskPack
- SAS\_Master Data ~ Design ~ Esko ~ Visualizer
- SAS\_Master Data ~ Design ~ Esko ~ Studio
- SAS\_Master Data ~ Design ~ Esko ~ Dynamic Content

▼ SAS\_Master Data

- Alcohol
- Automation
- CAD
- CAM
- Color
- ▼ Design
  - Esko
    - DeskPack
    - Dynamic Content
    - Neo
    - Store Visualizer
    - Studio
    - Visualizer
  - Pantone
  - X-Rite
- Flexo
- Non Alcohol
- Palettisation
- Preflight
- Prepress


Document Name:


Category: "Design" Brand: "Esko" Approval Status:

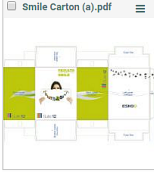
 

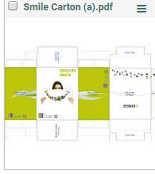
Your Cart is empty

View and Annotate Compare in Viewer Download Add to Cart More... Sort by Name









Found: 4 items. Page 1 of 1

- There are different trees with multiple branches for each of these as well.
- If you want to select the sub-brands of **Esko**, select them one by one. In this example, **DeskPack**, **Dynamic Content**, **Studio** and **Visualizer** are selected. Note that if you select the main branch, all the sub-branches will be automatically included.
- Refine other criteria from other trees according to your needs.
- Click on **Search** to get the assets filtered to your criteria.



**Note:** If the **Search** button is not available in your Asset Browser, your results will be automatically set according to your modified criteria.

You can see your selection on the top left hand side.



**Note:** You can change the result layout from card layout to grid or list layout by clicking on one of the buttons at the bottom right.

### Graphical Browsing in the Asset Browser

Graphical Browsing is possible when the administrator has configured the **Attributes** with associated images. Image browsing is straightforward like tree browsing and an example is given below.






Search Results Clear this Form

Current Selection:











- ▼ SAS\_Master Data
  - ▶  Alcohol
  - ▶  Automation
    - ▶  Enfocus
    - ▶  Esko
  - ▶ CAD
  - ▶ CAM
  - ▶ Color
    - ▶  Pantone
    - ▶  X-Rite
  - ▶ Design
    - ▶  Flexo
    - ▶  Non Alcohol
    - ▶  Palætisation
    - ▶  Preflight
    - ▶  Prepress

Document Name

Category  Brand  Approval Status

Your Cart is empty

Name	Project	File Type	Category	Brand	Product	Market	Business Unit	Location	Approval Status
 Speed Label Blue (back).pdf	S0014 - Enfocus - Connect YOU (Twins (Sleeve0))	Artwork	Automation	Enfocus	Connect YOU	EMEA	Belgium	Gent (HQ)	
 Speed Label Chili (back) Chili.chp	S0014 - Enfocus - Connect YOU (Twins (Sleeve0))	Artwork							Setup Approval Cycle
 Smile Carton (a).pdf	S0014 - Enfocus - Connect YOU (Twins (Sleeve0))	Artwork	Automation	Enfocus	Connect YOU	EMEA	Belgium	Gent (HQ)	Setup Approval Cycle
 Speed Label Blue (back).pdf	S0002 - Esko - Studio (Slices)	Artwork	Design	Esko	Studio	EMEA		Paris	
 Speed Label Blue (back).pdf	S0004 - Esko - Studio (Four Packs (sleeve0))	Artwork	Design	Esko	Studio	EMEA		Paris	
 Speed Label Chili (back) Chili.chp	S0002 - Esko - Studio (Slices)	Artwork							Setup Approval Cycle
 Speed Label Chili (back) Chili.chp	S0004 - Esko - Studio (Four Packs (sleeve0))	Artwork							Setup Approval Cycle

- There are three **lists** (Brand, Packaging and Product) in this example. You have multiple **Attributes** under each of these **lists**. For graphical Asset Browsing, you need images configured for the **lists** and **Attributes**.  
Administrator rights are necessary for adding images to **Attributes** and **lists**.
- To select sub-brands, click on the image representation. This will bring out the images representing sub-brands on the top image pane. Note that if you select the main branch, all the sub-branches will be automatically included as search criteria.
- Refine other criteria from other **lists** according to your needs. In this example all **Attributes** under **Packaging** and **Product** are selected by selecting the **list** images.

You can use the triangular back  button to go back one step at a time.

- Click on **Search** to get the assets filtered to your selections.



**Note:** If the **Search** button is not available in your Asset Browser, your results will be automatically set according to your criteria.

### Using the Cart from the Asset Browser

You can use the Cart in the Asset Browser to assemble the assets selected from the Asset Browser. From the Cart, you can:

- start the viewer
- download the assets
- start a new project with these assets
- modify the assets.

You can do several rounds of searching and browsing to add documents one by one to the Cart and then proceed with the actions listed above.



**Note:** The Cart has to be configured by the administrator while determining the settings of the Asset Browser (the **Saved Search**). Read more in [Configuring the Cart in the Asset browser](#) on page 232

You can read more about Cart in [Using the Cart](#) on page 605

### Creating a Project from the Asset Browser

Your Packaging Projects often involve modification of existing packaging or creation of new packaging with recurring elements. You can use a template for the recurring elements. Asset Browser will help you to browse for these templates and existing packaging projects. You can start creating a project directly from the Asset Browser. You can do this by:

- using the **Cart** to collect items and starting a project using **Create Project from Cart** link.
- or by selecting the **Create Project from Selected** option from **action list** menu.

This will lead to the WebCenter project creation user interface.



**Note:** The administrator has to enable project creation this in the **Saved Search** settings. Read more in [Configure Project Creation from the Asset Browser](#) on page 234.

### Bulk Editing in Search Results

Fields selected as editable in the **Search Results Options** page during configuration are available in the header of the **Search Results** page. You can also click on the pencil icon next to the field name in the search results to perform bulk edit.



**Note:** Only Admin Users or Project Managers can set the fields to **Editable** for **Project** searches whereas all users can select for **Document** and **Task and Approval** Searches. Admin users can also enable [Bulk editing](#) in the Search Results Layout option.

You can select the item(s) for bulk edit in the pop-up or select the pencil icon next to any of the editable field(s) in the header and choose the change both for the field and the rows.

You can add/remove items in the selection, sort columns or move to a different page of the search without losing the current selection. While selecting, filtering and sorting, you will see an upto date preview of the changes done.



**Note:** Inline editing of individual field is not possible when bulk editing is in progress.


A Warning is displayed, if the edit is not possible due to the permission not available for the user.

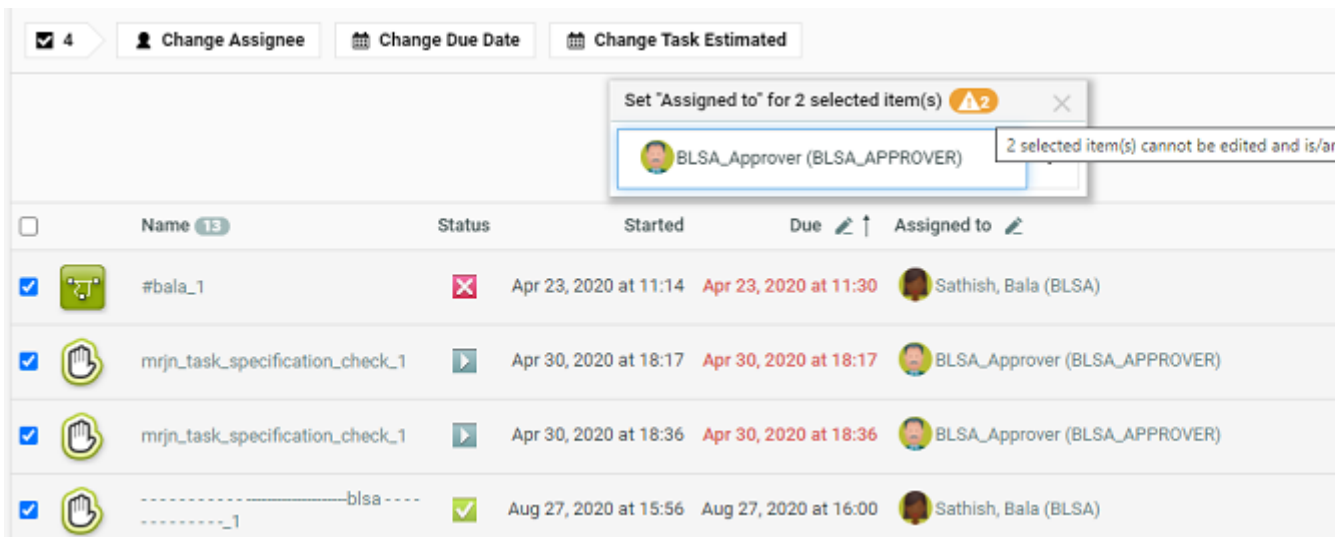
**Fields editable in Search Results**

Search Results can be edited in Bulk by all the users (based on permissions) in **Project** or **Document** or **Tasks and Approval** Search results. Only the Admin user can set certain fields like Task Specifications and Attributes as **Editable**.

You can edit the following for

- **Project Searches:** Project Description, Project Status, Project Due date, Project Manager Project Salesperson, Attributes
- **Document Searches:** Document Description, Attributes
- **Task Searches:** Task Description, Task Assignee, Task Due Date, Task Specifications, Task Estimated Date, Task Status

 **Note:** Tasks that require password for completion cannot be done in bulk editing.



An example of re-assigning tasks in bulk is shown in the image above. You can select some tasks and bulk change the assignee. For the tasks you selected, changes are shown immediately and warning message is displayed when changes are not done.

**Bulk Operations in Saved Search**

**Updating Attribute Category, Project Member or Project Permissions in Bulk**

You can change the Project Attribute Category of multiple projects from Project Search results in one go. Also, you can add Project Members to multiple projects and set their permissions.

1. Go to **Search > Saved Searches**. Select one or more projects from the Saved Search Results.
2. Select the **Projects** for which you want to change the Project Parameters.
3. Use the buttons **Change Attribute Category** or **Manage Members/Permissions** in the table header.

- Delete
- Change Attribute Category
- Manage Members/Permissions
- Change Due Date
- Change Project Manager
- Change Project Status

- To change the **Attribute Category**, pick an attribute category from the list.
- To add a **Project Member**, first choose whether you want to add a **User, Group** or **Role**. After that, select a user, group or role from the list, or start typing to find the one you want. Once you have selected your desired new project member you can immediately modify the new member's project permissions.

You can specify Custom folder permissions for inviting Project Members in the bulk operation. Use **Add folder** link to add a new line. Specify a set of permissions for the folder by typing in the folder name inside the provided edit field. Only the specified folders' permissions will be changed. Permissions on folders that do not exist in a given Project will be skipped

You can take out the Root permissions from the list. If no Root is in this list but the member is new to the project, he will only get view rights on the Root.

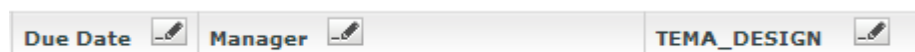


**Note:** The selected User, Group or Role will be invited if it is not yet present in the Project.

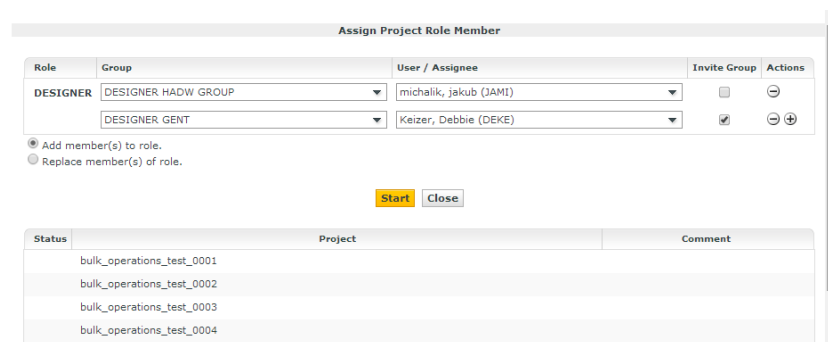
- Click **Start** and wait for the action to complete. You will be notified of any issues regarding the operation.
- Click **Close** to close the dialog. Your search results will automatically update.

### Updating Role Members in Bulk

- Go to **Search > Saved Searches**. Select one or more projects from the Saved Search Results.
- Select the **Projects** for which you want to change the Project Parameters.
- Click the pencil icon for the **Role** you want. Or select the desired bulk action from the table header.



Assign Project Role Member dialog will open.



4. In this window, you can **Add members to role** or **Replace members of role**.
5. Change the value of the desired parameter:
  - a) Select a User and/or Group to assign to the role.
  - b) You may add multiple assignments using the **actions** buttons.
  - c) Select whether to add the members to the group and replace the members.  
 If the members are replaced, all blocking tasks and approvals will be moved to the first of the new members.
6. Click **Start** and wait for the action to complete.  
 The dialog will indicate which projects were successfully modified. It will also list all of the problems.
7. Click **Close** to update your search results.

## Searching on Documents

### Search by Document Size

Users can search for documents which are of a certain size range using **Version Size**.

Version size will only show the size of the version of the document shown in the results. The size of the previous version of the document is not shown.

The **Version Size** criterion is available for all document types. You can search, sort and facet on the size of the document version (in bytes).

### Search by Document Created Date

You can search the documents based on the creation date in a range or in the specified previous number of days and make it hidden or visible or available in the results.

### Folder Search

You can search for the folders and it is described in detail [here](#).

### Live Text in Document

You can search for a text within a PDF, AI or Structured Content document using **Live Text in Document**. This field is available for search, based on the setting in the [Search Crawler configuration](#) set by the Admin user.



**Note:** Searching for Live Text in Structured Content documents requires the Structured Content license.

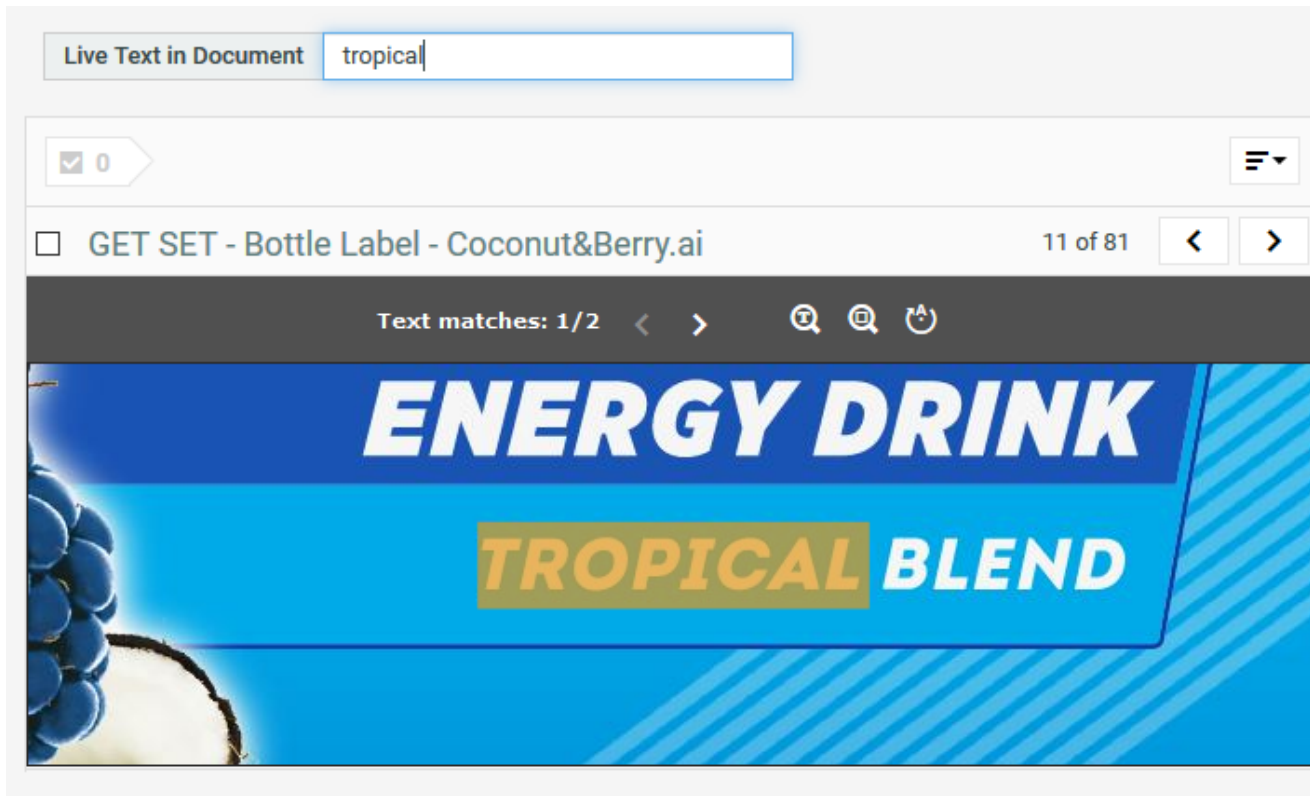


**Note:** Searching for Live Text will not produce results if the text is present within an image or outlined text.

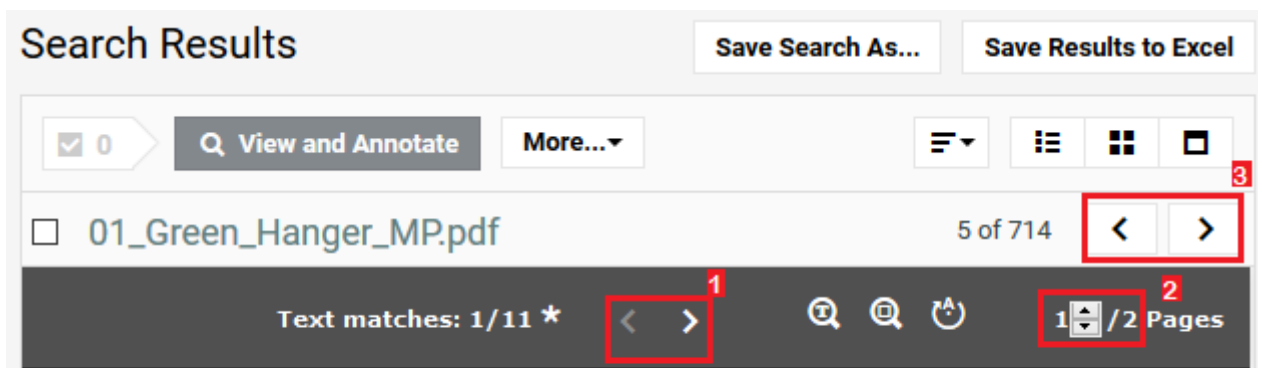
When the search results are shown as a [Focus layout](#) with a viewer block, the matches for the searched text are highlighted in the document. You can navigate through the matches to see where the searched text occurs. The number of instances of the text occurring in the document are shown in the header.



**Note:** This field does not support right to left text used in languages like Hebrew, Arabic.



You can navigate through the matches to see where the searched text occurs.



1. Navigate through the text matches within the document
2. Navigate through the pages within the same document
3. Navigate to the next document in the search results

The number of instances of the text occurring in the document are shown in the header. When multiple pages contain a match for the searched text, it is indicated with an asterisk and navigating through the matches will also navigate through the different pages. By hovering over an arrow, you can also see the number of pages containing a match.

Search for Live Text in Document only works on left to right text. For example, text in Arabic or Hebrew are not supported yet.

**Searching for Text Content Document**

**Search and Select Text Content in Search Menu**

To search for Text Content, go to **Search > Documents > Search for > Text Content**.

Search for Documents

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

Search for:

Use Advanced Search Characters [i](#)

Search Panel Design  Enable SmartNames [i](#)

**TEXT CONTENT INFORMATION**

Element Type

Document Status

**Statement**

Language	Danish	<input type="text"/>
Translation		<input type="text"/>
Text		<input type="text"/>
Modified		<input type="text"/>
Document Name		<input type="text"/>
Version Author	<input type="text"/>	<input type="text"/>
Author's Location		<input type="text"/>
Description		<input type="text"/>

*Note: The 'Modified' dropdown menu is open, showing options: today, yesterday, before today, this week, last week, this month, last month, this year, last year, more options...*

You can search based on the Text Content Criteria such as:

- **Element Type:** To search for a document based on its Element Type, select it in this field. Smart Names are available when **Enable SmartNames** is selected. Read more in: [Element Types](#).
- **Document Status:** To search documents based on its status, select the status (**Draft / Signed Off**) from the drop-down.
- **Statements' criteria:** These fields allow you to select and search based on:

- **Language** of the Text Element. For example, select `English - United States` to search for Master statements in English (US).
- Whether the Element is a **Translation** or **Master**. It can be specified in the **Translation** drop-down.
  - The directionality of the text will be based on the language selected. You can search both **Master** and **Translation** languages for right to left languages like Arabic or Hebrew.

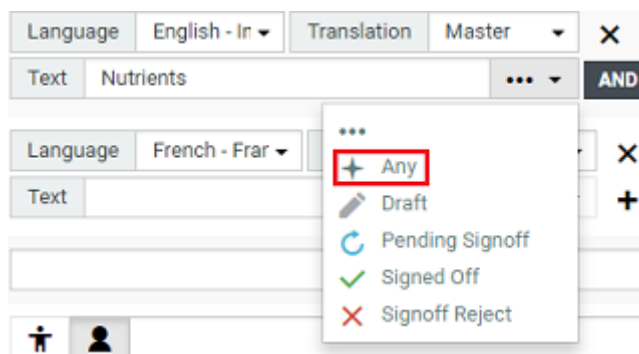


**Note:** You can also leave these fields blank. If the language field is blank, all languages (both Master and Translated) are searched for.

- Actual **Text** from statements: Type the word you want to search in the **Text** field.
- **Text Element Status:** Click `...` and select the status from the drop-down. For example, you can search for Signed-off statements with a particular text piece.
- Modified: Specify the time line you wish to search for like today, yesterday or last month etc .
- A combination of Text Statements' criteria

You can add new rows for additional search criteria by clicking `+`. When you have multiple rows, you can use either **AND** or **OR** operation to refine the Search.

You can also ignore the search criteria mentioned and only display the results by choosing `***` icon or you can choose the **Any** option to show results of text documents in any of the status.



In the example screen shot, the **Search** will find all Master Statements with `Nutrients` in its content **AND** with French- France as Translation.

**Configuring Text Content Documents Search Results**

The Search Results page shows all Text Content Documents that match the specified criteria. Each **statement** row selected to **View** is represented as a single column in the Results.



Search Results Save This Search Save Search Results

View and Annotate Compare in Viewer Download Add to Cart

Name	Description	Project	Element Type	Document Status	Master: English - United States	Version Author
Content claim.wcc	Briefing_deketest (01)	Briefing_deketest (01)	Content claim		WITH 26 NUTRIENTS	Keizer, Debbie (DEKE)
Content claim.wcc	Briefing_KADA Test (01)	Briefing_KADA Test (01)	Content claim		WITH 24 NUTRIENTS	Conway, Antony (ACON)
Content claim.wcc	Drupa16_BO Library	Drupa16_BO Library	Content claim		WITH 24 NUTRIENTS	Conway, Antony (ACON)
Content claim.wcc	PCM Text Library	PCM Text Library	Content claim		WITH 24 NUTRIENTS	Conway, Antony (ACON)

Found: 4 items. Page 1 of 1



**Note:** You can save Text Document Searches in Excel. The document statuses are not included in the Excel export.

### Search Results Options

To customize the Search Results, select your criteria in the **Search Result Options** fields. The **Document Name** is selected by default but can also be removed by unchecking the box. Read in: [Search Result Options](#) on page 577.

### Search Panel Design

As an Admin, you can setup a Text Content Search with a [Design Panel](#) just like other document saved searches. The users can select individual Library text statement criteria in the Panel to filter the search results.



**Note:** When smartname is selected for the language field, to view each resolved language in a separate column in the Search Results page, select the view as visible.

Search Results Clear this Form Save This Search Save Search Results

Document Name  Document Status  Element Type

Search

View and Annotate Compare in Viewer Download Add to Cart

Name	Description	Project
1 Active Ingredients Declaration Kalyogga General wcc		- THE RISING STARS - 00001 - requestor 2



- Note:**
- If no **Statement** language is selected from the language drop down, you will not be able to view it as a separate column. The results will then match Text statements of any language.
  - If the language chosen for the text has the directionality right to left or a custom font, then the text is also rendered right to left or in the custom font in the search results.

### Saved Search for Text Content Search

Text Document Searches

- ActiveIngredients
- ANKR\_TextContent\_search

To view My Saved Searches, go to **Search > Saved Searches**, you can view the saved search in the table under **Text Document Searches**. Saved Search for Text Content Document behaves exactly like any other document saved in the WebCenter.



**Note:** Only an Admin can modify the visibility of a Global Search.

**Searching for Structured Content Segments**

**Search and Select Segments**

To search for Segments, go to **Search > Documents > Search for > Structured Content > Content Type > Segments**.

The **Content Type** filter allows you to filter results as follows:

- **Structured Content:** filters the results to include Structured Content documents such as ditamap and dita documents.
- **Text Content:** filters the results to include PCM documents.
- **Segments:** filters the results to include Segment documents.

The **Language Code** filter accepts one or multiple language codes. This filter will limit the results to content which contains one of the specified language codes.

The **Text In Document** filter allows you to enter a string that will be used to search the actual content of a document. If any hits are found within the document content that Document will be returned.

**Search for Documents**

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

Search for:

Use Advanced Search Characters

Search Panel Design  Enable SmartNames View

**STRUCTURED CONTENT INFORMATION**

<b>Content Type</b>	<input type="text" value="Segment X"/>	<input type="checkbox"/>
<b>Content Language Code</b>	<input type="text"/>	<input type="checkbox"/>
<b>Text in Document</b>	<input checked="" type="checkbox"/> Segment <input type="checkbox"/> Structured Content <input type="checkbox"/> Text Content	

### Search Strings Examples

Shown below are different search phrases and their results. For more extensive help on searching, click [Help](#) in the Search page.

Sample search string	Results	What it does not find
box	box products box company box co. inc.	bottle holders
bo*	box products box company box co. inc. bottle holders	
box NOT "box company"	box products box co. inc.	box company bottle holders
box AND company	box company	box co. inc. box products bottle holders
"box company" OR "box co."	box company box co. inc.	box products bottle holders
box AND (products OR company)	box company box products	box co. inc. bottle holders
* NOT *company*	box products box co. inc.	box company

### My WebCenter

The **My WebCenter** menu contains items specifically related to your user.

#### My Profile

**My Profile** is where you set your name, your e-mail address, your phone numbers, your function, picture and your company/location.

#### User Avatar

You can choose to upload your picture or select one of your previously uploaded picture as an **Avatar** which is reflected in all places in WebCenter like Dashboards, Discussions My Work and so on.



**Note:** Your Administrator can also change your picture.

### My Password

The **Password** field is where you change your password. Enter the new password in the **Password** and **Confirm Password** fields and click **Change**. To set a blank password, enter nothing in the fields and click **Change**.



**Note:** This presents a security risk and is therefore not recommended.

If the **Passwords must meet complexity requirements** option is enabled by the Admin user, then your WebCenter password:

- May not contain the user's username, first name, or last name
- Must be at least "X" characters, where the minimum password length "X" is defined by your Admin user.
- Must contain characters from three of the following four categories:
  - English uppercase characters (A through Z)
  - English lowercase characters (a through z)
  - Base 10 digits (0 through 9)
  - Non-alphanumeric characters (for example: ! \$ # %)
- Must be different from the previous "**Number**" password(s), where the number of previous passwords is defined by your Admin user.

If the option is not enabled, then the only requirement is that the new password is not blank and not the same as the previous password.

### Single Sign-On Settings

You can view the Single Sign On settings specific to your User account in the **My WebCenter > My Password** page. This page will display the Single Sign On Instances that are enabled for your User account.

You may modify configuration details of the Single Sign On Instance depending on your permissions to do so. If you have permission to modify, all your values will be saved.



**Note:** User specific settings are possible when the Single Sign On Instance supports user specific configuration.

### My Preferences

In **My Preferences** you set the unit system used to display data, the language used, the display of thumbnails, your start page, and the grid size for search results (for Esko ArtiosCAD and Graphics documents) and discussions.

#### General

- **Language** sets the language used by the user interface.
- **Start Page** sets the page that appears when you log on. You can, for example, select a Saved Search with a visual Dashboard as the starting page.
- **Units** sets units for all measurements to either Metric (mm, cm, dm, m) or Imperial (in, ft, yd).

- **Thumbnails:** selecting **Show thumbnails** shows thumbnails in document lists by default.
- **Cart: Clear Cart on Logout** is always enabled by default. Disable this option if you want to access **Cart** contents in future sessions.
- **Your Browser Timezone** shows the timezone used by your browser and WebCenter.

### Project Lists

- **Show ... Rows** sets the number of projects displayed in the List layout.

### Document Lists

- **Default Layout** sets the default view for document lists: **Grid** or **List** or **Card** layout.
- **Show in Grid** sets the number of documents displayed on a single page in the Grid layout (defined as a number of **Columns** and **Rows** in the grid).
- **Show in List** sets the number of documents displayed on a single page in the List layout (defined as a number of **Rows** in the list).

### Search Results- All

**Show in List** sets the number of documents displayed on a single page in the **Search** results List layout (defined as a number of **Rows** in the list).

### Search Results- Documents

- **Default Layout** sets the default view for document **Search** results pages to **Grid, List** or **Cards** layout.
- **Show in Grid** sets the number of documents displayed on a single page in the Search Results Grid layout (defined as a number of **Columns** and **Rows** in the grid).
- **Show Cards** sets the number of the documents displayed in Card View on a single page in the Search Results.

### Search Results- Projects

- **Default Layout** sets the default view for project **Search** results pages to **Grid** or **List** layout.
- **Show in Grid** sets the number of projects displayed on a single page in the Search results Grid layout (defined as a number of **Columns** and **Rows** in the grid).

### Discussions

- **Discussions per Page** sets the number of discussion threads displayed per page on the **Discussions** pages.
- **Postings per Page** sets the number of discussion posts displayed per page on a **Discussions** page.

### Viewer

- **Viewer Workspace:** Select any workspace from the dropdown or **Create new Workspace** by selecting the option. Select the gear icon to open the Workspace Configuration pop-up window and view the options available in workspace selected or to edit the configuration in the workspace.  
You can choose to add or delete any tool or widget to the workspace or altogether delete the workspace itself.
- **Unregistered User Viewer Workspace:** A workspace is configured specifically for unregistered users who access WebCenter Viewer, when they are shared with a document to view or to approve.

Other workspaces or tools/ widgets are not visible apart from the workspace configured by the Admin User. Admin user can also create a new workspace specifically for this purpose.

- **Annotation Color** sets the color in which annotations will be displayed in the Viewer (you can set **Viewer Default** or choose a color from the list).
- **Annotate Approved Documents** sets if and how the users are allowed to annotate documents that are already approved.
  - Select **Enabled** if you want the users to be allowed to annotate approved documents.
  - Select **Warn if Approved** if you want to display a warning before allowing the users to annotate approved documents.
  - Select **Read-Only if Approved** if you don't want the users to be allowed to annotate approved documents.
  - Select **Warn if Approved or Rejected** if you want to display a warning before allowing the users to annotate approved or rejected documents.
  - Select **Read-Only if Approved or Rejected** if you do not want the users to be allowed to annotate approved or rejected documents.
- **Annotate Documents under Approval** sets who can add annotations in the documents under approval.



**Note:** A document version is considered under approval as soon as an approval cycle is started

Choose from the following settings:

- **All Users:** This is the default setting. All users with view access to a document can annotate that document once the approval cycle has started.
- **All Approvers and Approval Master:** The Approvers and Approval master defined in the document approval setup (all stages) for the current version can annotate during the approval cycle.
- **All Approvers:** All approvers defined in the document approval setup (all stages) can annotate the document while it is being approved.
- **Pending Approvers and Approval Master:** Only an approval master or approvers who can submit an approval state (Approve or Reject) for the current version can annotate the document during the approval cycle.
- **Pending Approvers Only:** Only approvers who can submit an approval state (Approve or Reject) for the current version can annotate the document during the approval cycle.
- Specify the **Viewing Quality** as:
  - **Best Performance** (Default): In this mode, the Viewer uses less compression to transfer images. These images are transferred faster but may contain small compression artifacts.
  - **Best Quality:** In this mode, the Viewer uses less compression to transfer images. It takes longer to transfer these images. However, you can view them without compression artifacts.
- **Settings for Automated Artwork**



**Note:** The below options are visible only when Automated Artwork license is enabled.

- **Task Type for Bulk Text Replace:** Choose from the list of task types shown. The selected task type is used in the **Files marked for Edit** widget when editing Artworks in the Viewer.
- **Text Replace Library:** Choose from the list of Text Document Saved Searches shown. The selected Saved Search is used in the **Action List** Widget. Read more about it [here](#).



**Note:** This option requires Packaging Content Management License.

- **PCM Attribute for linking Text Statements:** Choose from the list of document reference attributes shown. The selected document reference attribute is used to attach text content documents (such as .wcc) when saving a graphic file modified with **Action Lists** in the viewer.



**Note:** This option requires the Packaging Content Management License.

- **Log out user when inactive** Select this option, to log out the users whose sessions are not active for a period of time. Option is given to log in again and continue when the user returns to the viewer.
- **Stream video through WebCenter proxy** Enable this option to open video files located in Asset management system in the HTML5 viewer.
- **Show Discussions in Viewer** Enable this option to view discussions widget in the viewer and view all the discussion posts about the document viewed.



**Note:** Project Managers who can Force Approve or Force Reject is not considered an approver. They can add annotations only if the setting is **All Users**.

### ArtiosCAD

To open your document in the ArtiosCAD desktop application directly from the WebCenter server, you need to set the **ArtiosCAD Preferences** accordingly.

#### Open ArtiosCAD Documents

- **No Application:** This is the default **Preference**. When this is selected, you cannot open the documents in the ArtiosCAD desktop applications.
- **ArtiosCAD Standard Edition:** Select this setting to be able to download ArtiosCAD documents and open them in your ArtiosCAD desktop application.
- **ArtiosCAD Enterprise Edition:** Select this to open your ArtiosCAD documents in the installed ArtiosCAD Enterprise Edition directly from WebCenter.

The documents will open in the **managed mode** allowing you to make modifications to the file and update it without having to browse to the corresponding project and folder.



**Note:** This option is only supported from ArtiosCAD Enterprise 14 onwards.

#### Document Upload Preferences

- **Allow raising Document Revision when uploading a new Document Version:** Enable this to allow the users to raise the **revision** while uploading a new **document version**.
- **Allow Instant uploading when selecting documents:** X Choose this option to start uploading documents immediately when they are selected, while the rest of the page is still being filled in or other documents are still being selected.

•

**Workflow Editor**

By default, HTML5 is used as Workflow editor.

**User Creation**

To create a new approval User from an approval page quickly, you can select and apply a particular user's settings as the **Approval User Template**.



**Tip:** If you do not want to take up a license for a Template User, deactivate the user by unchecking the **Active User** option in the Profile page.

It is possible to configure this at two levels.

- To specify a global template, go to **Admin > Preferences > General > User Creation Preferences**. Select a particular user existing in the system as your **Approval User Template**.

This template will be set as the system wide approval user template. However, it is possible to override this in **My WebCenter > My Preferences > User Creation Preferences**.

- To specify a template for a User who can create other users, go to **My Preferences > User Creation Preferences** and specify an **Approval User Template**. You have the following options and your choice will override the admin settings:

- **Do No Use a Template**
- **Use Global Approval User Template** to apply the user template specified in the **Admin Preferences**.



**Note:** If you have not explicitly selected the **Do not Use a Template** option or has any other user specified as the template, the global template will be applied by default.

- You can select a particular user as your template. In the drop-down you will see your own Users if you are a Project Manager and all Users if you are an administrator.

The following Preferences and settings of the template are copied to the newly created user:

1. Preferences:
  - **Language**
  - **Units**
  - **Start Page**
  - **User Menu**
  - **My Work Setup**
  - **Viewer Preferences**
  - **Collada Viewer Preferences**
  - **Workflow Editor Preferences**
  - **Document Upload Preferences**



- **ArtiosCAD Preferences**
  - **Download Formats**(copied only if the user creating the new user is an Administrator)
  - **Group Memberships**(copied only if the user creating the new user is an Administrator)
  - **Other Preferences** are the user preferences not mentioned above (for example: show thumbnails or not, search results layout, etc.).
2. The Authentication Settings ([Deactivation](#), SSO, etc.)

### My Locked Documents

**My Locked Documents** shows documents you have locked to indicate that you are currently working on them. If other users try to download a locked document, they will have to confirm that they really want to download a locked document.



**Note:** In order to lock a document you need specific permissions.

Only the person who locked it, or the Project Manager, or a member of the Admins group can unlock a locked document.

To unlock a locked document, select the checkbox to the left of its name and click **Unlock**. The function **Upload New Version** of the document also unlocks the document.

My Locked Documents

**Unlock**

<input type="checkbox"/> Document	Project	Locked Date
<input type="checkbox"/>  Conbury_Cookie_Template3.chp	 NAPR0004	Sep 3, 2015



**Note:**

Unlocking a document without uploading a new version does not make any changes to the document. In order to change it, you must lock it, download it, change it as desired, and upload it as a new version.

### My Users

In case you are a project manager with **Create User** rights, you can see the users that you have created on the **My Users** page.

### My Group's Tasks

In case you are the Group Task Manager for one or more groups, you can find the tasks assigned to your group(s) on **My Group's Tasks** page.

### My Group's Members

If you are a Group Manager of a specific Group (or multiple Groups), you can use **My Group's Members** to manage your Group members.



**Note:** The administrator has to give you the Group Manager permission to access the Group members.

- If you are the Group Manager for more than one group, specify the group by the **Group Name**. This will allow you to see the members of the selected group.
- From this page, you can:

**Manage Group Members**

Group Name: NAPR\_CAPP\_GROUP2

Notification settings:

Group E-mail Address:

Group E-mail Language:

Username	Last Name	First Name	Company, Location
NAPR_CAPP_USER2	NAPR		
NAPR_CAPP_USER3	NAPR		CGI India, Bangalore
NAPR	Prakash		Napr_company1, bangalore

- **Remove User(s)** from the members of the group.



**Note:** The group manager cannot remove himself / herself from the list.



**Remember:** If there are dependencies such as a pending approval associated with the member being removed, the removal will not be effective. You will be warned about those dependencies during your attempt to remove a member.

- **Add Users** to the group. Your permissions and visibility determine the potential users whom you can add as the group members.

If you are a :

- **Project Manager**, your Visibility settings affect whom you can add as members.
- **Normal User**, you can add the Users associated with the same Company..
- Select from **Notifications settings** to **Send notifications to a Group e-mail Address**. You can set the **Group E-mail address** and the language to be used in the group **Group E-mail Language** by selecting from the drop-down menu. All notification mails will be sent to this e-mail address.

### My Delegates

If you have added delegates, you can view the delegates and the details of delegation on this page. See below:

- The name of your delegate(s)

- The start and end date of your delegation(s).
- Permanently active delegation(s) which are the delegations without a specified end date.
- Comments
- An option to Delete the delegation in progress
- An option to notify new delegates. This option when checked notifies the delegate of any changes you made to the relevant delegation.

**Create**

You can use this menu to create projects or users. You can only see it if you are a Project Manager. See [Project Management in WebCenter](#) on page 774 for more information.



**Upload**

Use this menu to upload documents into any WebCenter project for which you have upload permissions.

See [Different Ways to Upload Documents](#) on page 609 for more information.

**4.2.4. Filtering Content**

As more information is managed over time by WebCenter, some pages can potentially show large amounts of information. To reduce the time needed to show the page when it first loads, some pages have a filter.

To use the filter, enter a search string with an asterisk either before it, surrounding it, or after it in the **Search** field, and click . For example, on the **Companies** page, to only see those companies with the word Containers in their name, enter \*Containers\* and click .

When filtering users, use the last name of the user.

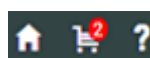
To show all the items, up to the truncation limit, click  with nothing in the field.



**Note:** The truncation limit prevents lists of thousands of items from impacting response time; if you know in advance that your search will return that many items, refine it with the filter. The truncation limit can be changed; contact Professional Services at your local Esko office for more information.

**4.2.5. Using the Cart**

**My Cart** is a dedicated placeholder for a single user to gather a specified set of Projects and Documents. You can add them to the Cart from the Project or the Document **Actions** menu. The Cart also lets you **Mail link to**, **Mail Download Link** **Remove** or **Download** multiple items at once.

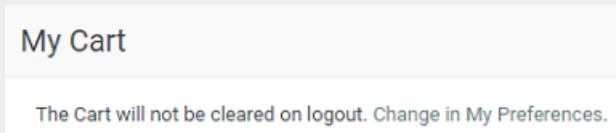


The contents of the Cart (the count is displayed next to the cart icon) are retained only for the current login session by default.



**Note:**

Your **Cart** contents can now be saved. You can disable the option **Clear Cart on Logout** in **My Preferences** to save the Cart contents for future sessions.



Click **Change in My Preferences** to clear/save cart on logout.

The Cart contents can also be cleared by clicking **Clear Cart** option on the top-right corner.



**Note:**

Downloading multiple documents at once or downloading projects requires having a decompression utility, or operating system support for opening compressed archives.

Mac OS X, Microsoft Windows XP, and Microsoft Windows 2003 Server have built-in support for opening compressed archives.

When e-mailing an object from the Cart, only a link to that object is placed in the body of the e-mail message. The recipient must have a username and password for your WebCenter site, so he or she can log in to the site and see the object after clicking the link.





Shown below is a sample Cart.

My Cart
Clear Cart

The Cart will not be cleared on logout. Change in My Preferences.


**Documents**

View and Annotate Compare in Viewer Mail link to Download More...

	Documents	Version	Description
<b>Image</b>			
<input type="checkbox"/>	 pinklumi.png (992.1KB)	1	
<input type="checkbox"/>	 BlueBottle.png (755.4KB)	1	
<input type="checkbox"/>	 GreenBottle.png (867.5KB)	1	
<input type="checkbox"/>	 berry.png (1.2MB)	1	

**Projects**

Mail link to Download Remove from Cart

	Projects	Description	Manager	Modified
<input type="checkbox"/>	 DEKE_Show & Tell Sprint 70		Keizer, Debbie (DEKE)	Apr 13, 2016

You may start the Viewer on documents in the Cart by selecting the desired documents and selecting **View and Annotate** or **Compare in Viewer** from the **Actions** menu.

## 4.3. Working with Projects and Documents

---

This section contains information on using WebCenter from an everyday use (non-Project Manager's) perspective.

### 4.3.1. View a Project

- To view a project, click its name in **Search, Search Results, My Work, Favorite Projects, Projects I Manage Projects I Am Invited to**.
- Click an underlined item to see more information about that item.
- Click a folder name to open a folder.
- Click a document name to see the Document Details page.

By default, clicking the document name leads to the Document Action History page, but if you click a different page, WebCenter associates that desired page with the document type for the duration of the session.

- You can use the **Actions** menu to perform various actions, based on the security settings you have in the project.
- To view a document in a project, you can either click its name on any of its Details pages, or you can download it to your computer if you have download permission. If you click its name, it will be handled by your browser's default method for files of that type.

### 4.3.2. Add Documents

One of the main functions of WebCenter is sharing documents between project members in a safe and traceable way.

#### How Documents are Organized

Any document in WebCenter is placed at least in one project. The same document can however be used in different projects at the same time, and are called linked documents. Linked documents are used, when the same design needs to be re-used and synchronized between projects. If synchronization is not needed, it's better to copy the document and each of the documents are placed separately in WebCenter. The vast majority of documents are in just one project.

Projects are organized in folders. Documents are put into a folder or on the root folder of the project.

**Note:**

Currently, WebCenter only allows going one level deep. In most circumstances, this is not a real limitation, unless you try putting too many documents into the same project. WebCenter is well equipped to work with extreme amounts of projects so it's better taking advantage of this than creating projects with entire sub-projects put into a folder structure.



**Note:**

Document names within a project are unique. When trying to upload a second document with the same name in a different folder of the same project, you will get an error message.

WebCenter is fully “version enabled”. This means that each document can have multiple versions. By default, you’ll only see the latest version, but you can go back to previous versions. In addition, there is an action history showing when versions are uploaded and what actions took place on these versions (for example approval actions). The viewer also allows comparing versions graphically.

## Document Types

The following document types can be uploaded in WebCenter:



**Note:** You can hover on any viewable file to view the expanded thumbnail. You can further click on the **Zoom** icon on the right top corner to view a larger thumbnail.

- **Graphic file:** WebCenter supports most common graphic formats. PDF, PS, EPS, AI, AP, EPF, DCS, PSD, CT, LP, TIF, TIFF, PAF, GRS, PNG and JPG will all be recognized.

After upload, WebCenter will calculate preview data for the WebCenter Viewer.

If you don't want this, you need to upload the graphic file as an “other” file type. Typical examples are office-based PDF files (manuals, quotes...) which are better viewed in Adobe Acrobat.

- **LENX:** LEN is a bitmap file format developed for Esko's Cyrel Digital Imager ("CDI"). LENX is a special version of the LEN file format developed for Esko's CDI Crystal Imager series and Crystal screens.



**Note:** You can also upload a ZIP file containing graphic files (a set of TIFF or LEN files, or LENX files or a PDF, GRS or AP file with external images) as a "graphic file", and view it directly in the Viewer.

- **ArtiosCAD:** Native files of Esko ArtiosCAD. The standard extension are .ARD(Design) , .A3D(3D) , .MFG (Manufacturing) and .ACD(Canvas).
- **Cape:** Cape is a program to calculate pallets and truckloads. WebCenter allows two ways to upload files from Cape:
  - uploading a triplet of files (You need at least 2 files: the CLF and XML files. The report / diagram file (usually a JPG) is optional).
  - uploading a single ZCP file.

When you have uploaded a ZCP file, check the **Cape Information** tab in the In the **Document details** page to see the information from the XML document. To view the report / diagram file, click on the document thumbnail.

- **Collada:** Collada is an interchange file format for interactive 3D applications. Regular Collada files have .DAE extension, Zipped Collada files use .ZAE.
- **Page List:** a multi-page document that will be treated like a Page List in WebCenter. A Page List represents an imposed multi-page document, the individual pages of which can be approved and version-controlled separately in WebCenter.
- **CHILI Package:**

This is CHILI WebCenter document type. A CHILI Package version is linked to a native CHILI document on the CHILI server. Read more about [CHILI](#) on page 137 in Administrator Guide.
- **Text Content**

This Document Type is for Text Content in WebCenter. When **Text Content** Document Type is enabled, a .wcc will be recognized as Text Document.

- **Component:** Component is a unique file type which has no physical presence but acts as a placeholder for all the documents related to the product. Read detailed about Component file type [Component File Type](#) on page 609 here.
- **Other:** any other file. Mostly these are office files like Microsoft Word, Excel, PowerPoint etc. Video files must also be uploaded as "other".
- **URL:** Here you can enter a link to another document anywhere on the network or on the Internet. WebCenter does nothing else than remembering this link and allowing to define attributes.

### Component File Type

The Component document type in WebCenter is a document type for holding only a set of attributes. This can represent a non-file packaging component like a Copy Sheet or a Barcode, an alternative to a project or a placeholder document for holding a packaging specification.

For example a collection of all assets required for a Product Content Sheet(PCS), that includes images, symbols, Barcode, text statements, CAD files, 3D, Collada files and so on.

The Component document type shares most properties with other document types, but there are a few exceptions like

- This file type does not have a physical file and have zero size.
- Document type will change depending on the extension of the uploaded document, when a new version is uploaded
- Opening a Component will open a view of the Default attribute category

### To Create/ Upload a Component Document

In the **Upload** page, choose the file type **Component** to create a new component type document. When the mandatory fields are filled, click **Save** to create a new Component document.

You can restrict the file that can be uploaded by specifying a file type for the first version.

When no extension is defined for the first version, the document type is changed according to the extension of the uploaded document.

Opening a Component document will allow you to view or update the attributes of the document.

### Search for Component Document type

Component file type is available in the **Search for** drop down selector in the **Document Search** page.

The available criteria are the same as for the **All** selector, but the results are filtered with the **Component** document type.

### Different Ways to Upload Documents

There are multiple ways to upload documents to WebCenter:

- Upload via **Upload Document:** use this if you only have a single document to upload, or to upload documents one by one.
- Upload via **Upload Multiple Documents:** use this to upload multiple files at once, if you do not want (or are not able) to use a Java applet.
- Upload via **Advanced Upload Applet:** This opens a HTML5 applet allowing you to browse or drag-and-drop multiple files. These files are all uploaded in one go.

- Upload from a workflow system:** Automation Engine can also upload documents to WebCenter. In many cases, it is beneficial to upload graphic files using a workflow system, because:
  - It is quicker and automated.
  - The workflow system can do calculation in advance.
  - You have better control over the generation of the view data (when using Automation Engine).
- Upload from ArtiosCAD.** Use this to upload CAD files. You can only upload one document at a time but you can make the project selection and document name automatic. This makes uploading a one-click operation.
- Upload by Drag and Drop** Documents can be uploaded to projects or one of the folders of the project by dragging and dropping them from the user's file browser.

### Uploading a Document via Upload

- You can either go to the project/folder you want to upload the document into and click the



button, or just click the **Upload** menu item from anywhere.

When instant upload is configured by an Admin user, and a file is chosen for upload, the upload of the file starts immediately. You can view the progress of the upload and there is an option to pause or stop the upload.

Drag files in here or click below Target Folder

Name	Progress	Actions
<b>Browse: InstallerChanges.mp4</b> (6.85 MB) Change File	100%	
InstallerChanges.mp4	Description	
<input type="button" value="Upload Test"/>		
<b>Browse: WebCenter_18_1_1_Complete_Documentation.pdf</b> (44.36 MB) Change File	20%	
WebCenter_18_1_1_Complete_Documentation.pdf	Description	
<input type="button" value="Upload Test"/>		
<b>Browse: AutomatedArtworkInternalDocumentation.pptx</b> (8.7 MB) Change File	68%	
AutomatedArtworkInternalDocumentation.pptx	Description	
<input type="button" value="Upload Test"/>		
<b>Browse: Home_And_Design_Trends_May_2020_desk.pdf</b> (26.04 MB) Change File	30%	
Home_And_Design_Trends_May_2020_desk.pdf	Description	
<input type="button" value="Upload Test"/>		
<b>Browse: LPMI_May-2020.pdf</b> (12.58 MB) Change File	53%	
LPMI_May-2020.pdf	Description	



**Note:** You can also drag and drop multiple files into the upload button, with the above option selected.

- On the **Upload** page, select the **Project** and **Folder** you will upload the document into (if you are already in the project/folder, those are filled in automatically, but you can still **Change the Destination**).

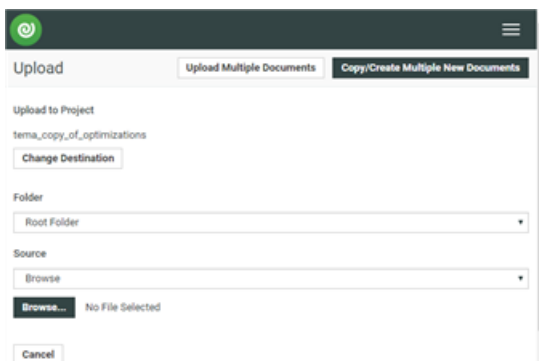




**Note:**




You can also select:

- **Upload Multiple Documents** to use the [HTML5](#) upload. Just drag and drop files to upload them.
- **Copy/Create Multiple New Documents** to [add multiple documents at once](#) (either from your computer, from another project or from a template).



3. Select the document to upload as explained below.

If you want to...	do this...
<p><b>Upload a document saved on your computer or network.</b></p>	<p>Select <b>Browse</b> in the <b>Source</b> list and click the <b>Browse...</b> button to open a browser dialog.</p> <div> </div> <p><b>Note:</b></p> <p>If you are uploading Cape files, you can upload a single <code>.zcp</code> file.</p> <p>If you are uploading a <b>Page List</b> document, you must also specify the <b>Name</b> and <b>Starting Index</b> of the Page List.</p>

If you want to...	do this...
	<p> <b>Attention:</b></p> <p>Graphic files must be self-contained and may not contain references to external files such as fonts or placed images. Make sure fonts are embedded.</p> <p>In case you upload native files (GRS or PDF Native), you should use the Automation Engine <b>Publish on Web</b> task.</p> <p>If you need to upload manually anyway, first make a self-contained file with Outright. You can also convert to PAF and upload the PAF file.</p>
<p><b>Copy a document from another project.</b></p>	<p>Select <b>Copy</b> in the <b>Source</b> list, then select the project to copy the document from, and the document to copy.</p>
<p><b>Add a link to a document.</b></p>	<p>Select <b>URL</b> in the <b>Source</b> list and type in or paste the URL to the document.</p>
<p><b>Create a document placeholder from a document template.</b></p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> This is only available if the project has been created from a project/template containing document templates.</p> </div>	<p>Select <b>New</b> in the <b>Source</b> list, select the document template to use in the pop-up, and fill in any attributes that may be required.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> The document template's document type will be used for the document placeholder (except if that document type cannot be copied, like Page List).</p> </div> <p>See <a href="#">Document Templates</a> on page 171 in the Administration Guide for more information about document templates, and <a href="#">Assigning Document Attributes</a> on page 626 for more information about attributes.</p>

4. If you browsed to a document, copied it from another project or created a placeholder from a template, the **Document Type** and document **Name** are automatically detected.  
You can still change them if needed (you cannot change the **Document Type** of a placeholder or a copied document).
5. Enter a **Description** (optional but strongly advised).
6. If you want to add this document to the Project's [Bill of Materials](#) on page 473, select **Add to BOM**, then enter the **Count** of this document (how many copies are needed for the BOM).



**Note:**

You can only do this if:

- you are an Administrator,
- you are the Project Manager,
- you have the **Change BOM** permission.

7. If the document has attributes, fill them in (at least the required ones).



**Tip:** The document has the attribute category associated with its document type in the **Configure > Document Creation** tab of the Project (see [Document Types](#) on page 176).

8. If you want to use the **default** approval settings of the project/folder for the document, select **Apply Default Approval Settings** (this is not available for document URLs).



**Note:**

You can also:

- Set the approval **Due Date** (only if you have the **Change Approval Setup** permissions): enter a date or pick one in the calendar, then choose an hour.
- Start the approval cycle.

9. Click the **Upload** button.

10. If you want to define approval settings **specific to this document**, click **Setup document approval**. This will bring you to the **Approval** tab of the document details page.

If you have the task management license, you can also upload a document to a task in a project.

You can upload documents the same way as described and the document will immediately be linked to the task.



**Note:** TIFF and JPG bitmap files using indexed color spaces or RGB are not supported by the WebCenter Viewer.



**Note:** When you try uploading a document which already exists in the project, the upload of this document will fail. You won't get a new version. Use **Upload new version** instead.

The first time you save a project document, you enter all its database information. The next time you work on that document, you can:

- [lock a document](#)
- [upload a new version or revision](#)

It is up to you to decide if it is a draft, revision, or version according to your company's best practices. Some people publish minor changes as revisions and major changes as versions; others do the opposite, and yet others just save drafts.

**Copy / Create Multiple Documents**















1. You can either go to the project/folder you want to upload the document into and click the



button, or just click the **Upload** menu item from anywhere.

When instant upload is configured by an Admin user, and a file is chosen for upload, the upload of the file starts immediately. You can view the progress of the upload and there is an option to pause or stop the upload.

Drag files in here or click below Target Folder

Name	Progress	Actions
<b>Browse: InstallerChanges.mp4</b> (6.85 MB) Change File	100%	 
InstallerChanges.mp4	Description	
Upload Test		
<b>Browse: WebCenter_18_1_1_Complete_Documentation.pdf</b> (44.36 MB) Change File	20%	  
WebCenter_18_1_1_Complete_Documentation.pdf	Description	
Upload Test		
<b>Browse: AutomatedArtworkInternalDocumentation.pptx</b> (8.7 MB) Change File	68%	  
AutomatedArtworkInternalDocumentation.pptx	Description	
Upload Test		
<b>Browse: Home_And_Design_Trends_May_2020_desk.pdf</b> (26.04 MB) Change File	30%	  
Home_And_Design_Trends_May_2020_desk.pdf	Description	
Upload Test		
<b>Browse: LPMI_May-2020.pdf</b> (12.58 MB) Change File	63%	  
LPMI_May-2020.pdf	Description	




**Note:** You can also drag and drop multiple files into the upload button, with the above option selected.


- On the **Upload** page, select the **Project** and **Folder** you will upload the document into (if you are already in the project/folder, those are filled in automatically, but you can still **Change the Destination**).
- Click **Copy/Create Multiple New Documents**.



**Note:** From this page, you can also click **Upload Multiple Documents** to use the [HTML 5 Upload](#) to upload multiple documents.

- Add a document as explained below.

If you want to...	do this...
<p>1.</p> <p><b>Upload a document saved on your computer or network.</b></p>	<p>Click <b>Upload</b> then click the <b>Choose File</b> button to open a browser dialog.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> You cannot upload CAPE files, or upload PDF files as page lists when uploading multiple documents. Please use the normal <b>Upload</b> option for this.         </div>
<p>2.</p> <p><b>Copy a document from another project.</b></p>	<p>Click <b>Copy</b>, then select the project to copy the document from, and the document to copy.</p>

If you want to...	do this...
<p><b>3.</b></p> <p><b>Create a document placeholder from a document template.</b></p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <p><b>Note: This is only available if the project has been created from a project/template containing document templates.</b></p> </div>	<p>Click <b>New</b>, select the document template to use in the pop-up, and fill in any attributes that may be required.</p> <p>To collapse a document's attributes, click the square minus sign in front of the document. To collapse all documents' attributes, click <b>Collapse All</b> at the top of the page.</p> <p>See <a href="#">Document Templates</a> on page 171 in the Administration Guide for more information about document templates, and <a href="#">Assigning Document Attributes</a> on page 626 for more information about attributes.</p>

Documents


Source	Document Template	Name	Description
Upload: <input type="button" value="Choose File"/> berry.png	<input type="text" value="Please Select..."/>	<input type="text" value="berry.png"/>	<input type="text"/>
<input type="button" value="New"/>	Box1.ard	<input type="text" value="Box1.ard"/>	<input type="text"/>

Select a Board:

Length:  mm      Width:  mm      Depth:  mm


IsStandard

5. Repeat for each document you want to upload.



**Note:** If you want to remove a document, click the delete button behind it.

6. If you want to use the **default** approval settings of the project/folder for these documents, select **Apply Default Approval Settings** (they will not be applied to document URLs).




**Note:**

You can also:

- Set the approval **Due Date** (only if you have the **Change Approval Setup** permissions): enter a date or pick one in the calendar, then choose an hour.
- Start the approval cycle.

You cannot setup document-specific approval settings for several documents at once.

7. Click the **Upload** button.



**Note:** When you try uploading a document which already exists in the project, the upload of this document will fail. You won't get a new version. Use **Upload new version** instead.

### Upload Multiple Documents via the Upload Applet

You can **Upload Multiple Documents** in two ways:

1. Click **Projects** on the Menu Header. Select the **Project** you want to upload the document to.
2. Click the [📁 Upload Multiple Documents](#) option. Select the **Target Folder** from the drop-down menu.
  - You can also select menu **Upload** and upload multiple documents. In this case, select the **Project** and the **Folder** you want to upload the documents to and click **Upload Multiple Documents**.
3. You can either **Select Files** (one by one or by selecting a few) or drag-and-drop from any file browser into the applet window.

You can change the destination Folder of each document if you want to.

4. If you want to use the default approval settings of the project / folder for these documents, select **Apply Default Approval Settings**.
  - Set the approval **Due Date** (only if you have the **Change Approval Setup** permissions): enter a date or pick one in the calendar, then choose an hour.
  - Start the approval cycle.

You cannot setup document-specific approval settings for several documents at once.

5. Click **Upload**.

The upload will start and you will see a progress window. Depending on how many files and how big they are, this can take a while.



**Note:** You cannot upload ZIP files, individual CAPE files, or upload PDF files as page lists with the upload applet. Please use the normal **Upload** option in the Project for this.



**Note:** When you try uploading a document which already exists in the project, the upload of this document will fail. You can, however, upload it as a new **Version**.

### Upload from a Workflow System

You can upload documents to WebCenter from:

- a Automation Engine workflow, using the **Publish on Web** task.



**Note:**

You can also start an approval cycle on your uploaded document directly from the workflow. It uses is the default approval cycle, inherited from the project or folder you upload the document into.

If you have the **Change Approval Setup** permission, you can also set the approval due date.

For details on how to upload documents from Automation Engine, please see the corresponding user manual.

### Upload from ArtiosCAD

For details on how to upload documents from ArtiosCAD, please refer to the ArtiosCAD user manual.



**Note:** You cannot start an approval cycle from ArtiosCAD.

### Upload by Drag and Drop

You can upload documents by Drag and Drop. To do so, you can

1. Add a document into a project or folder by dragging from your browser.
2. **Upload Files to (Project Name)** window is opened along with the document that is dragged.
3. You can add more documents by dragging into this window or use **Select Files** to browse. Select **Upload** to add the documents to the project.

## 4.3.3. Working with Documents

Once a document has been uploaded to WebCenter, you perform a number of basic operations on it, such as copying, deleting, updating or locking it, to ensure it completes its lifecycle within the system.

### Move a Document



**Note:**

When a document with approval settings is copied or moved to another project, the approval settings are not copied or moved.

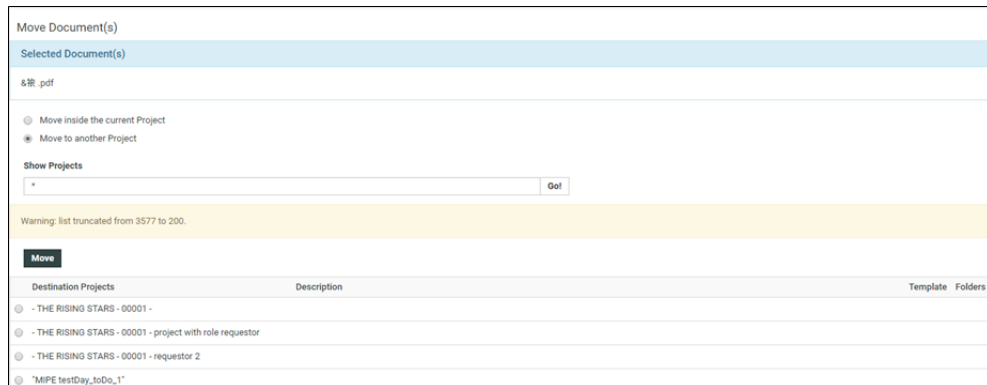
A document with a started approval cycle may not be moved or copied as a link until the approval cycle is stopped.

A locked document cannot be moved.

1. Open the project and folder containing the document to copy and select it. If desired, select more than one document by selecting their checkboxes.
2. Click **More....** Select **Move Document(s)** from the drop-down menu.
3. Choose to either **Move inside the current Project** or **Move to another Project**.
4. Do one of the following:

If you chose to move the document	Then you must...
in the same project,	Select the folder into which to move the document.
to another project,	<ul style="list-style-type: none"> <li>• Choose the project into which to move the document.</li> <li>• If that project has folders, choose the folder into which to move the document.</li> </ul>

5. Click **Move**.



### Copy a Document

1. Open the project and folder containing the document to copy and select it. If desired, select more than one document by selecting their checkboxes.
2. Click **More....** Select **Copy Document(s)** from the drop-down menu.
3. Choose to either **Copy inside the current Project** or **Copy to other Project(s)**.
4. Select **Copy as Link** to copy a link to the destination folder or project.



**Note:** If you opt to **Copy as Link**, you will not be able to **Rename Document** or be able to **Copy Viewer Annotations**.

5. Do one of the following:

If you chose to copy the document	Then you must...
<b>in the same project,</b>	Select the folder into which to move the document, or provide a new name for the copy in the <b>Rename Document</b> field.
<b>to another project,</b>	<ul style="list-style-type: none"> <li>• Choose the project into which to copy the document.</li> <li>• If that project has folders, choose the folder into which to copy the document.</li> </ul>

6. Click **Copy**

The document is now available in both the source and target projects.



## Delete a Document



**Note:** A document with a started Approval Cycle cannot be deleted. The Approval Cycle must be stopped before you can delete the document.

A locked document cannot be deleted.

If a document is used for a document reference attribute, it cannot be deleted


1. Open the project and folder containing the document to delete and select it. If desired, select more than one document by selecting their checkboxes.
2. Click **Delete Document(s)** in the **Actions** Header.
3. Click **OK** to confirm the deletion.

The selection is deleted. If any selection is a linked document, only the particular link that was selected is deleted; other instances of the link are not deleted.


## Lock a Document

Locked documents are documents you have flagged as being in use so that other users do not download them and work on them at the same time.

1. Open the project and folder containing the document to lock.
2. Select the checkbox of the document to lock and click **More...**Select **Lock** from the drop-down menu. To lock more than one document at a time, select more than document. You may not lock URLs. The latest version of the document is selected for locking.

The document is now marked as locked . If other users try to download it, they will be asked to confirm downloading a locked document.

## Unlock a Document

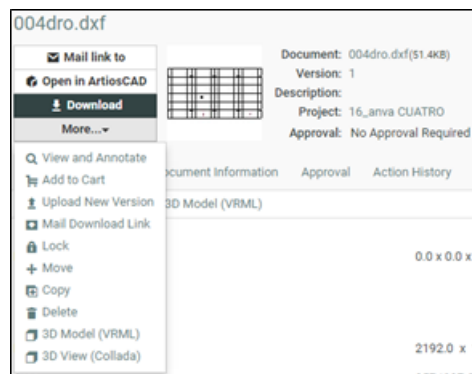
1. Click **My WebCenter > My Locked Documents**.
2. Select the document(s) to unlock.
3. Click the **Unlock**  **Unlock** button. The document(s) will no longer be shown on the list.

## Upload a New Version or Revision of a Document

1. Open the project and folder containing the document to which you will **Upload New Version** or **Raise to Revision**.
2. In the **Documents** list, either:
  - Hover over the document link and click **More** or the **Upload** button to **Upload New Version**.



- click **Upload New Version** in the Actions Header.



Make sure you use the buttons on the document's row.

- 3. Browse** to select the new version of the document.

For document types that have more than one file, specify multiple files as needed. The filenames can differ from the original file names, but they must of the same type (i.e. have the same extension) as the original document.



**Note:** By default, if the file name of the new version of the document is different from the filename of the previous version, WebCenter will use the filename of the original or previous version when you download the new version. This behavior can be changed; contact Professional Services for assistance.

- 4.** In the **Version comment** field, enter your comments regarding the new version.
- 5.** You can make the new version a **Revision** by enabling **Raise to Revision A**. This is only available if the admin has enabled this for you.



**Note:** The revisions will be denoted as A,B,C following the version number.

- 6.** If this is a linked document, select the project(s) to check the document into.
- 7.** When you upload a new version of a document which has an approval cycle ongoing, the approval cycle stops automatically. If you want to have the approval cycle restart immediately, select **Start approval cycle on new document version**.
- 8.** If you have the **Change Approval Setup** permission, you can adjust the approval cycle's due date (in the **Specify New Due Date** option).



**Note:** If the document was in a **staged** approval cycle, **where** the cycle restarts from depends on the **When a new version is uploaded** setting. See [Define How to Handle a New Document Version](#) on page 805.

9. Click **Finish**.

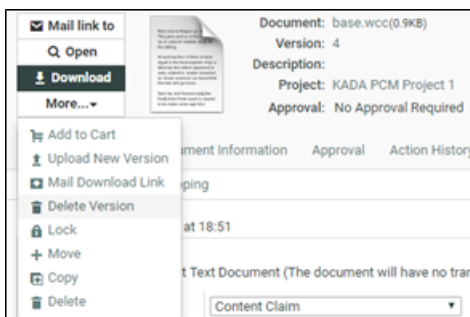


**Note:** To access a previous version of the document, click its number in the **Version** column on the **Action History** page for that document.

### Delete the Last Version of a Document

You can delete the last version of a multi-version document if:

- you are the Project Manager for the project containing that document, an Admin, or a project member with **Delete** permission
- the project containing the document is active
- the document is not checked out by another user
- the document has more than one version
- On the Document Details page, click **More Actions...** then **Delete Version**.



Confirm your choice by clicking **OK**.



**Note:**

If that document version is in a running approval cycle, WebCenter will show this message: There is a running approval cycle on this document version. Are you sure you want to delete this document version?

Clicking **OK** stops the approval cycle for that document version.

If the document came from Automation Engine, the Pilot will indicate the deletion.

If the deleted document version was linked in other projects, the link is updated (to link to the previous document version)

The document record indicating the last version index is decreased by one.

### Update a Document across Projects

If you have a document that is linked in many Projects, and upload a new version into only one Project, the links in other Projects continue to reference the prior version.



**Note:** Project Managers may update entire Projects at once, not just the contents of a single folder.

To update a document in a Project to ensure it references the latest version, do the following:

1. Open the project and folder containing the document to update.
2. Select the document to update. To update more than one document at a time, select as many as desired.
3. Click **Update** from the **More** drop-down menu.

All documents in the folder that you selected for which you have Update permission are updated. A list is shown of the updated document(s), the containing Project, the old version number, and the new version number.

### Open a Document

Opening a document means having WebCenter open the document using the document’s default application as defined in the Web browser. You need **View and Download** permissions to **Open** the document.

1. Navigate to the document by searching for the document and clicking its name in Search Results, or by clicking its name in a project.
2. Click **Open** on the Document **Actions** Header.
3. The **Open** button has different behavior for different document types.

Document Type	Behavior
CHILI	Opens CHILI Viewer in new window
PDF	<b>Open</b> button unavailable. Use <b>Open in Acrobat</b> .
ArtiosCad Design, Manufacturing, Canvas or 3D	<b>Open</b> button unavailable. Use <b>Open in ArtiosCAD</b>
Graphics	<b>Open</b> button unavailable. Use <b>View and Annotate</b>
Other (text,xml, MS Word, MS Excel...)	If the browser has a plug-in for the document format extension, it shows the contents of the file in a new window. If no plug-in is available, the document is downloaded.



**Note:** You can hover on any viewable file to view the expanded thumbnail of the document. You can further click on the **Zoom** icon on the right top corner to view a larger thumbnail.

### Download a Document

1. Navigate to the document by searching for the document and clicking its name in Search Results, or by clicking its name in a project.
2. In the **Document** list, either:
  - Click **Download** in the **Actions** Header.
  - Hover over the document link and click **Download**



- If it is an ArtiosCAD document, choose the format in which to download it and click **Download**. You may only download in formats for which you have the **Download** permission.
- If it is a CHILI document, choose from the download options (CHILI Package, CHILI XML, PDF), and click **Download**.
- If it is a Structured Content document the document is downloaded as a zip file along with all the referenced topics, images, etc, of the selected document.

You can enable the notification for **Document downloaded** to keep track of who downloaded a Document.

The document is downloaded and may be manipulated as desired.

## Documents in Esko Cloud

It is now possible to store and retrieve documents from the Esko Cloud. This has been enabled with the help of work flow nodes. This requires an Asset Management connection to be setup for Archiving service.

Status of the document location is indicated in the document information with an icon.

### Upload and Download from Esko Cloud

With an existing connection for Archiving, documents can be uploaded in a workflow using the **Upload to Asset Management System workflow** node.

You can select the **Only archive old Versions of a Document** option to upload all the versions that are no longer linked from within a Project in WebCenter. Uploaded documents have an indication in the document header with a cloud icon and the document information tab has the cloud connection link along with the external document id.

You can select the **Remove Document from Filestore after upload to Esko Cloud** option to remove the Document from the WebCenter Filestore after a successful upload to the Esko Cloud. After running a Workflow with this option configured, the Document will still be useable in WebCenter. It is still possible to download/generate view files for this Document, however the document data will be served from the Esko Cloud. Read more about the work flow node [here](#).

### Restore from Esko cloud

You can restore the file back to WebCenter in a workflow using the work flow node [Restore from Esko cloud](#).

Choose the right archiving connection where the document is located and on execution the document is back in the Filestore.

## Download Multiple Documents

You can download several documents on a same page (in a Project or a Search Result page) in one go.

When you select multiple documents for download, WebCenter automatically adds them to a compressed archive, and then the archive is downloaded (WebCenterDownload.zip).

To download multiple documents, do the following:

1. Select the checkboxes of the documents to download.
2. Click **Download** in the **Actions** Header.

Use a decompression utility to extract the documents from the archive. The documents are now on the hard drive and may be manipulated as desired.



**Note:** To download all of a project's documents, click **More actions...** then click **Download** in the header of the Project Details page.

## Download Documents from Multiple Locations

To conveniently download documents from several projects, you can use the **Cart**. You can add documents to download to the cart as you are browsing the projects, then download them in a zip archive when you are done.

1. For each document that you want to download, click **Add to Cart** in the **Actions** Header.
2. Click the **Cart** button in the top row menu or next to a document name to go to the **Cart**.
3. Select the checkboxes of the documents to download.
4. If you are downloading ArtiosCAD or CHILI documents, choose the format in which to download them and click **Download** in the Actions Header. You may only download in those formats for which you have permission, and you may only choose one download format for designs and one for manufacturing files, respectively.

Use a decompression utility to extract the documents from the archive. The documents are now on the hard drive and may be manipulated as desired.

## Viewing and Printing a Document's Annotation Report

You can view the annotation report page with an overview of annotations done in a document without opening the document in the viewer. To view the annotation report, go to:

- **Document details > Annotations.**



**Note:** This feature is only enabled for graphic files.

You can view all the details related to the annotations in this page. In addition, you can also filter based on **Review** status, **User** and **Report style**.

Click the **Print** link to print the Annotation Report.



**Note:** The print layout will follow your annotation filters.

This feature only works correctly in browsers supporting the HTML5 Canvas feature.

## Online Document Editing with CHILI

### Open CHILI Document in Editor

When a user opens a document, it will be opened in the CHILI Editor. In the editor, the user will be able to edit the parts of the document, based on Workspace and Constraints. Read also [Dynamically assign workspaces and constraints to CHILI Documents](#) on page 140

In the header bar, some document information will be shown. Below, the buttons "Return", "Save as Draft" and "Save as New Version" are shown. If the user who opened the editor is an approver, he can see the approval options and from there, he can do all available approval actions. When the user approved/rejected the document, the action button list will be updated.

NOTE: "Save as Draft" button is only available if the current User has 'CHECKOUT' permission for the CHILI document; "Save as New Version" button is only available if the current User has 'ADD' permission for the CHILI document.

### Save a CHILI Document

When a user saves his document as a draft, it will be saved on the CHILI server. When he then reopens the document in the editor, the changes are still there. However, when downloading the document from WebCenter, the changes will not be visible. They are only visible in the editor.

In the document details page (header), a warning should be shown that there is a draft version of the document.

When a user saves his document as New Version, it will be saved on both the CHILI server and WebCenter. The previous version will be restored to its original state in case there was a draft version.

When saving as a new version, a version comment is required. It is also possible to start approval and set a due date. When saving a linked document, the user will also get the option to select in which projects the document needs to be updated.

### Using and Updating WebCenter Attributes from the CHILI editor

In a CHILI document, variables can be defined. Filling out those variables will change certain fields in the document.

When loading the document in the CHILI editor, attributes can be pushed to the editor. If an attribute in WebCenter (either project or document attribute, where document attribute gets priority) has the same name as a variable in the CHILI document, the value in CHILI can automatically be filled out. The user will be asked if he wants the variables to be updated when opening the editor on a clean document (without a draft version). After this, the user will always be able to synchronize the values on demand by clicking the "load attribute values" button. This update button can be clicked at any time.



**Note:** This panel and button will only be shown when there are actual matches between attributes and variables.

When an attribute name and a variable name match, and that variable is edited, it is possible to save these values back into the attribute category again when saving as a new version. When saving the Document as a new version, a popup window will come in which the user can specify a version comment and restart approval. In the same window you will have two check boxes to specify if you want to update project and document attributes. Note that for linked documents, it is not possible to save project attributes.





**Note:** For a lot of the variable types, conversions are foreseen in WebCenter. However, there are some limitations:

- There is no conversion between the WebCenter Rich Text Attributes and CHILI's Formatted Text variable.
- Multivalued Text attributes in WebCenter cannot be imported into the CHILI editor's list variable.

### Viewing References of a Document

If your current Document (including all versions of the Document) is being referenced in other Documents, you can view the details in the **References Tab**.

This tab will list the Documents referencing the current Document Version as a Document Reference.

Design Information	Document Information	Approval	Action History	Annotations	Projects	Attributes	References	Characteristics	More... ▾
Version 3 (Current Version)									
Documents	Project	Version	Uploaded						
 Sandwich Salmon & Soft Cheese.pdf (11.7MB)	KSJ Document Reference test	1	Jul 3, 2016 at 12:34 PM ADMIN (ADMIN)						
<input checked="" type="checkbox"/> Show parent references for all versions									
Version 2									
Documents	Project	Version	Uploaded						
 Sandwich Salmon & Soft Cheese 2.pdf (11.7MB)	KSJ Document Reference test	1	Jul 3, 2016 at 1:31 PM ADMIN (ADMIN)						

This tab provides a view of:

- the Documents in which they are referenced,
- the Projects in which those Documents reside,
- the Version
- and details on who Uploaded the Document (Version)

If the document has additional versions and one or more of these are explicitly referenced, a checkbox **Show parent references for all versions** will be displayed. Enable this to view a list for each version that are referenced.

### 4.3.4. Assigning Document Attributes

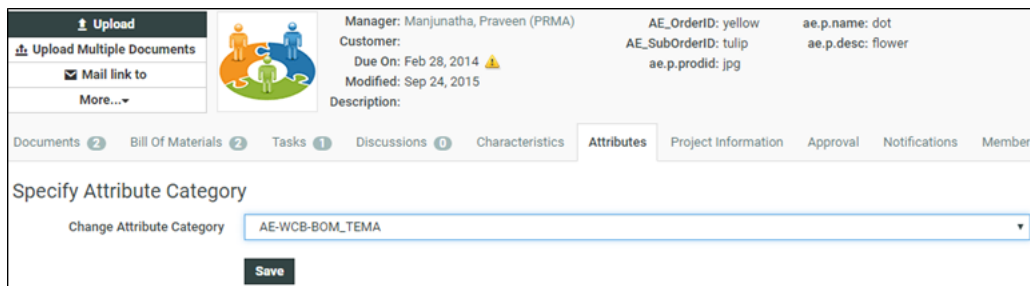
**Attributes** are a way to assign user-configurable fields and their values to documents and projects. They can be restricted to a group of preset values, or can be prompted so that the user has to set a value each time it is used.

Attributes need to have been created by an Administrator before you can use them (see the Administration Guide for more information).



### Assign Document Attributes

1. Open the project and folder containing the document to change and click its name.
2. Click **Attributes**.



3. **Specify Attribute Category** by selecting from **Change Attribute Category** drop-down. Click **Save**.
4. In the **Attributes in Category** page, fill in the desired values for the Attributes and click **Save**.

### Change Document Attributes

1. Open the project and folder containing the document to change and click its name.
2. Click **Attributes**.
3. Change the Attributes values as desired and click **Save**. The values are changed.

### Change an Attribute Category

**Attribute Categories** are related Attributes grouped together for convenience. If you change an Attributes Category, the previous values are not saved.

1. Open the project and folder containing the document to change and click its name.
2. Click **Attributes**.
3. Click the **Change Category** link.
4. Select the new Attributes Category to use and click **Save**.
5. Enter the values for the new Attributes and click **Save**.

### Export Attributes to JDF

To make working with other systems easier, you can export and import document Attributes by using JDF (Job Definition Format) files. You can export the Attributes, modify them in another system, and then import their changed values back into WebCenter.

Note that you cannot add more Attributes to a document this way; this only lets you change the values for existing Attributes.



**Note:** Option to Import from or Export to JDF buttons are enabled only when **Allow importing from/exporting to JDF** is enabled in the WebCenter Security Preferences by the Administrator users.

1. Navigate to the document with the Attributes to export.

2. Click **Attributes**.
3. Set the values for the Attributes as desired and click **Save** to set them. If they are already set as desired, skip this step.
4. Click **Export...**  
 WebCenter automatically names the file `<document name>_attrs.jdf`. Any periods in the document name will be converted to underscores.
5. Save the file in the desired location.

### Import Attributes from JDF



**Important:**

If you want to import Attributes that are not generated by another WebCenter system, you should generate a sample JDF file for the people using the other system to use as a reference, so that they format their JDF file correctly.

The important lines are the ones similar to `<eg:SmartName Name="Attribute Name" Value="Value"/>`; there must be a Value tag for each Name tag.



**Note:** Option to Import from or Export to JDF buttons are enabled only when **Allow importing from/exporting to JDF** is enabled in the WebCenter Security Preferences by the Administrator users.

To import a JDF file containing Attributes with changed values for a document, do the following:

1. Navigate to the document with the Attributes to import.
2. Click **Attributes**.
3. In the **Import from JDF file** field, enter the path and name of the file, or click **Browse...** and select it that way.
4. Click **Import**.

The values for existing Attributes are updated if necessary. If there are either too few or too many Attributes defined in the file as compared to the document, WebCenter will mention it in a status message.

### 4.3.5. Viewing Document References of a Document

### 4.3.6. Assigning Document Characteristics

Characteristics are descriptive tags that can be assigned to projects or documents to make them easier to find.

Characteristics are hierarchical. This means there can be different levels of characteristics for various product lines so that you can drill down through the information to find the exact characteristic desired when searching the database.



**Note:**

Characteristics are linked to the document itself and not to a specific version.

So changing the characteristics of a linked document will affect all versions of the document, in all projects that have the document linked (including inactive projects).

You can only assign characteristics to a document if:

- you are an Admin,
- you are the Project Manager,
- you have **Change Properties** rights for that document.



**Important:** If the project is inactive, you will not be able to edit a document's characteristics if your Admin has not enabled **Allow changing attributes and characteristics of inactive projects** in the Preferences (see the Administration Guide for details).

1. Open the project and folder containing the document to change and click its name.
2. Click the **Characteristics** tab of the Document Details page.

You can also find CAD design Characteristics (associated to ARD files) in the **Characteristics** tab.

When using ArtiosCAD Enterprise, the CAD design Characteristics you assign in WebCenter will be reflected back in ArtiosCAD.

3. Select the checkboxes of the desired Characteristics. The selected Characteristics will appear in the list of Characteristics. Click the **+** plus sign next to a Characteristic to see its child Characteristics.
4. Click **Save**. The selected Characteristics will be associated with the document.

To remove Characteristics from a document, do the same as described above, but deselect the checkboxes of the Characteristics to remove them from the list.

### 4.3.7. Downloading a Project




**Note:**

Only those documents in a project for which you have **Download** permission are included when downloading a project.

To download a project:

1. Open the project.
2. Add the project to the **Cart** by clicking **Add to Cart** on the **Projects** Header bar.

You can also select multiple projects in a project list and click **Add to Cart** in the **Header** bar to download them all at once.

3. Click the **Cart**  button.
4. Select the project(s) to download and click **Download** in the **Header** bar.
5. If prompted, choose where to save the files and click **Save**.

The project is saved as a compressed ZIP archive with the same name as the project. Use the decompression software of your choice to open it; some operating systems can open compressed archives without the need for a separate program.

When downloading multiple projects, individual projects are compressed into their own archives and then those archives are nested together in one master archive.

Your system may be configured to download and open the archive automatically, in which case you can extract the files as desired.

### 4.3.8. E-Mailing Links to Documents and Projects

You can send links to documents and Projects with any MAPI-compliant messaging program.




**Note:**

The recipient(s) must be able to log in to your WebCenter system and have the appropriate permissions to view the Documents or Projects referenced by the links. You can **Mail link To** single or multiple Documents and Projects.

1. To **Mail link To** single Project or Document:
  1. Navigate to the Document or Project.
  2. Click **Mail link To** from the Project or Document details page.
2. To **Mail link To** Multiple Projects or Documents:
  3. Select the Documents/Projects you want to send. Click **Add to Cart** in the **Document** or **Project** Header bar.

You can also add multiple documents or Projects to the cart. Simply repeat this step.

4. Click the **Cart**  button.
5. Select the Documents or Projects you want to send.
6. Click **Mail link To** in the **Header** bar.

The screenshot shows the 'My Cart' interface with a 'Clear Cart' button in the top right. Below the title, a message states: 'The Cart will not be cleared on logout. Change in My Preferences.' The interface is divided into two main sections: 'Documents' and 'Projects'.

**Documents Section:**

- Buttons: View and Annotate, Compare in Viewer, Mail link to, Download, More...
- Table with columns: Documents, Version, Description.
- Items:
  - clientdftt.pdf (0KB) - Version 1
  - [Creation Date\_MM.dd.yy]\_Order\_Summary.pdf (156.9KB) - Version 1, Description: WcReport\_Demo\_-\_Order\_summary

**Projects Section:**

- Buttons: Mail link to, Download, Remove from Cart
- Table with columns: Projects, Description, Manager, Modified.
- Items:
  - ACadDefaults\_14.0.1\_en\_napr - Manager: Prakash (NAPR), Modified: Apr 7, 2015
  - AUTOSDK\_PROJECT\_03 - Description: Project for autonaming AUTO SDK Testing, Manager: ADMIN (ADMIN), Modified: May 10, 2016
  - All other document types that a native Apple I/O view

A message opens containing links to the documents or Projects in the body of the e-mail.

7. Address the message as desired and send it as usual.

**Tip:**

To send only one message containing links to both Documents and Projects, leave both messages open and cut and paste links between messages as desired.

### 4.3.9. E-Mailing Links to Download Documents

You can send a link to download a certain document (or multiple documents) to non-WebCenter users. This link will only enable the recipient to download one specific file and has a fixed validity (number of days that the link is available).

To use this functionality, an Admin user first needs to enable it and set the validity for the download link (see the Administration Guide for details).

This functionality is available to Project Members that have Download permission for a given Project Document Version and to the Project Manager of the parent Project.

The following steps describe how to send a download link(s) to a non-WebCenter user:

1. Select the checkboxes of the document / documents to download.
2. Choose **Mail Download Link** from the **Header** bar.  
Your default e-mail client will open with an e-mail containing a link (URL) generated by WebCenter.
3. You can add a recipient and edit the content of the e-mail message.
4. Send your e-mail.



**Note:** You can also **Mail Download Link** from the pages below:




- **My Cart**
- **Document Search Results**
- **Project Details** documents
- **BOM** documents
- The recipient of the e-mail will be able to use the download link to download the file for as long as the link is valid. In case the link is no longer valid, the recipient will be informed it has expired.
- When a recipient clicks a link that is invalid, expired or tampered with (for example if the URL was changed), he/she will see a web page stating that the link is invalid.

### 4.3.10. Viewing the Action History

The **Action History** page for a document shows all actions performed on the document such as version Uploads and Approval Actions.

- To view the action history, click the **Action History** link on a document.

The page displays these document details:

Version	Event	Status	Stage	Date	User	Comment
	Lock Document			May 9, 2016 at 2:50 PM	Prakash (NAPR)	
▼ 1	Upload Document			May 4, 2016 at 5:12 PM	Martinez, Teresa (TEMA)	
<b>Stage Stage2 Overview - Pending</b>						
	Approval stage started			May 9, 2016 at 2:10 PM	Prakash (NAPR)	
	Approval requested for User				Prakash (NAPR)	--
<b>Stage Stage1 Overview - Approved</b>						
	Approval stage started			May 9, 2016 at 2:10 PM	Prakash (NAPR)	
	Approved		Stage1	May 9, 2016 at 2:10 PM	Prakash (NAPR)	
<b>View Generation</b>						
	Check and register			May 4, 2016 at 5:12 PM		Finished Successfully May 4, 2016 at 5:12 PM <a href="#">Show Task Details</a>

- **Version:** An overview of document versions
- **Event:** An overview of:
  - Details of Upload Document/Upload Document Version, Approval, Lock document...
  - **View Generation** (for Graphics only) with a link to **Show Task Details**.
  - **Annotations** which display date, time, user and annotation comments.



**Note:** The document uploaded event also includes the description of the document. When a document is copied from another project to the current project, the source project information is also mentioned.

- **Status** displays the current status of the document (Approved, Rejected, Locked...) and their icons.
- **Stage:** displays the Approval stage
- **Date** displays both Date and Time of action performed.
- The **User** that uploaded the Document/Document Version.
- **Comment:** displays Version/Approval/Annotations comments.



**Note:** The Document **Action History** varies according to the document types. Some display page information too.

The changes done to the attributes of a document when uploading the document are also tracked in the project history (under the attribute changed event type)

You may print a printer-friendly report of the **Details** page by clicking **Print** in the header. A new page will open showing the entire Action History which you can print using the browser's **Print** command.

### 4.3.11. Viewing ArtiosCAD meta-data

You can see the meta-data associated with the new ArtiosCAD Design (ARD) and Manufacturing (MFG) documents uploaded via the WebCenter interface or via an ArtiosCAD Enterprise client version 14.0.2 (or later).

In the **Design Information** tab (for design files) or in the **Manufacturing Information** tab, you can see:

- the **Grain / Flute Direction**
- the **Default Side** for the Design (ARD) and Manufacturing (MFG) documents.


Document: acad\_00001.ard

✉ Mail link to

🔍 Open

⬇️ Download

⋮ More...



Document: acad\_00001.ard(20KB)

Version: 1

Description:

Project: tema\_admin\_20292\_project

Approval: Cycle Started - Pending ↻ Stop Cycle

**Design Information** | Document Information | Approval | Action History | Annotations

Geometry | 2D View | 3D View (Collada) | 3D Model (VRML)

### Design Information

Length x Width x Depth: 0.0 x 0.0 x 0.0 mm

Blank Size: 234.35 x 224.95 mm

Area: 296.5943 sq cm

Rule Length: 4663.16 mm

Grain/Flute Direction: ↔ Horizontal

Default Side: 🏠 Outside

Board Code

Description

Caliper: 0.41 mm

Flute



**Note:** You can also view the 3D Model of this document in the **3D View (Collada)**.

- the **Die Side** for the Manufacturing (MFG) documents.

SR011506\_OK.MFG

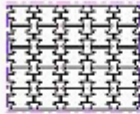
Mail link to

Open in ArtiosCAD

View and Annotate

More actions...

Download



Document: SR011506\_OK.MFG(18KB)

Version: 1

Description:

Project: prma\_prjCreation\_Test\_Sprint53\_12

Approval: No Approval Required

Manufacturing Information

Document Information

Approval



Action History

Annotations

Manufacturing

Print Items

View

Width x Length	940.0 x 754.0 mm
Run Length:	0
Die Press:	wijze van uitvoeren
Printing Press:	XL105
Grain/Flute Direction:	↔ Horizontal
Default Side:	 Outside
Die Side:	 Back
Board Code:	Material
Description:	Material
Caliper:	0.0 mm
Flute:	



**Note:**

Older document versions or document versions uploaded from ArtiosCAD Enterprise client 14.0.1 or earlier will not show these data.

### 4.3.12. Viewing Project History

You can view the history of various events in the Project by navigating from **View History** page. You can navigate from **Project > More > View History**.

Any user with access to a Project, can see the events history of the particular project. Based on the notifications setup for the project or the template for various events, records are added to the project history.

Events are added when a Project was created and information like Project name, Project description, customer, customer location and Project Manager of the project are logged.

Any change of the information status, due date, attribute, attribute category or permission changes are also logged as events in the project history.



You can filter or sort the events by the date, time, user, or event type. You can also print the **View History** page.

### 4.3.13. Running a Project Report

You can run pre-configured project reports from the projects you have access to if your Admin has given you access to these reports (see the Administration Guide for more information).



**Note:** This only includes project reports. *System-wide reports* are available from the **Search** menu.

1. In the project, go to **More actions... > Run Project Report**.
2. If you can run several reports for this project, select the desired report on the **Run Report for Project** page.
3. If the report requires parameters, specify them (mandatory parameters are marked by an \*) and click the **Run Now** button.

## 4.4. The WebCenter Viewer

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### 4.4.1. The HTML5 Viewer

#### About the HTML5 Viewer

The HTML5 Viewer is a fast and comprehensive viewing tool introduced in WebCenter 14.

From WebCenter 21.07 onwards, the HTML5 Viewer is the only supported WebCenter Viewer.

#### What does the HTML5 Viewer offer you?

- Speed: fast viewing for Graphics and CAD files. High speed 3D viewing (14.1 and later).
- Compatibility: high speed performance on the new client browsers.

Browser	Supported Version - Windows OS	Supported Version-Mac OS
Microsoft Edge	Latest	-
Firefox	4.0 or higher	4.0 or higher
Chrome	5.0 or higher	5.0 or higher
Safari	-	5.0 or higher

- Reliability: high accuracy in displaying your data.
- Detail: advanced zoom to see finest details, measuring exact distances. Fast zooming.
- Customizable widgets. You can even restrict access to certain features depending on the user preferences.
- Keyboard shortcuts. To see all of them, press **?**
- Easy access to help and knowledge base. Search in the **Help** widget or press **F1** to access help.



**Note:** The HTML5 Viewer does not offer live collaboration or working together at the same time. You can use [annotation threads](#) for discussions.

## The Simplified Viewer

Two types of desktop layouts can be viewed when you open the viewer in a normal browser: the HTML5 Normal Viewer and the Restricted (New Look)/ the Simplified Viewer. This new viewer presents a cleaner, less complicated and clutter-free look.

### Viewing Simplified Viewer

The leaner viewer offers easy navigation through some of these features:

- The Simplified Viewer comes with all the enhanced features available in the HTML5 Viewer.
- In the Simplified Viewer the side panels are collapsed by default. You can open the specific widgets that you need.
- The new viewer allows you to resize the opened widgets (even as the side panels remain collapsed).
- With some configuration, it also allows each widget to be hidden.

### Opening the Viewer in Simplified Mode

In **Viewer Preferences**, select the Restricted (New Look) as the **Viewer Style** to open the Simplified Viewer layout. It is set to **Normal** by default.

This layout consists of four sections: center, top bar, right and left side panels:

- The Information bar on the top consists details of the document, the user and buttons to execute other actions [The Information Bar](#) on page 641
- Below the information bar, you have the top tool panel with all the toolbar components. Activating these help you perform different functions on the document. Read more in: [Top Tool Panel](#) on page 644
- You have the View area in the center.
- The collapsible side panels contain the **Viewer Widgets** which are collapsed by default.

### Ordering and Collapsing Widgets in the Side Panels

The widgets display document information and help perform different functions. To facilitate ease of view, you can adjust them in many ways:



- Click the **Widget Header** to collapse or expand the widget.
- You can drag the widgets to either of the two side panels. The height of each widget is automatically adapted by the side panels.
- The side bars do not disappear on collapsing but remain as a thin bar containing the widgets icons that represent the widgets. Click the icon needed. It opens next to the side bar.



**Note:** You can open only one widget per side bar at a time. If you click another icon on the same bar, the first widget closes.

### Collapsing and Resizing Side Panels

The side panels contain all the widgets and can be manipulated in different ways to maintain the leaner look:

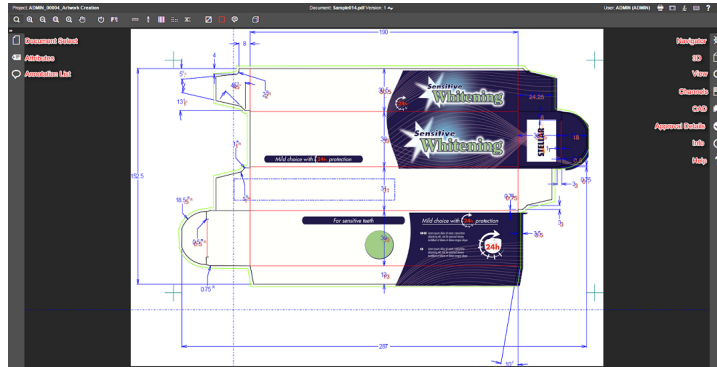
- Resize and collapse side panels by using the  or  **Toggle Right/Left Side Bar**. The side panel becomes a thin bar containing only the icons.
- When you click the expand toggle, the panels expand to fit in both side panels and the viewport.
- To revert the side panels to their original size, click the toggle button.

### Resizing Widgets in the Simplified Viewer

You can choose to have a full or partial view of the widgets when you:

- Resize opened widgets even when the side panels are collapsed
- Drag the widget borders horizontally or vertically. You can also resize by dragging the bottom corner. The width and height are saved and the widget will retain these dimensions when you open the viewer the next time.
- Restore the widget to its default size by double clicking the respective icon on the side panel.

### Tools in Simplified Viewer

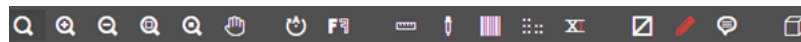


The Simplified Viewer offers tools that are similar to the Normal Viewer:





- [The Information Bar](#) on page 641



- [Top Tool Panel](#) on page 644



- Use or to Toggle Side Panels.
- To open the widgets, click the corresponding icons:
  - [Navigator](#) on page 668
  - [3D View](#) on page 668
  - [View](#) on page 670
  - [Channels](#) on page 680
  - [CAD](#) on page 683
  - [Approval Details](#) on page 666
  - [Info](#) on page 669

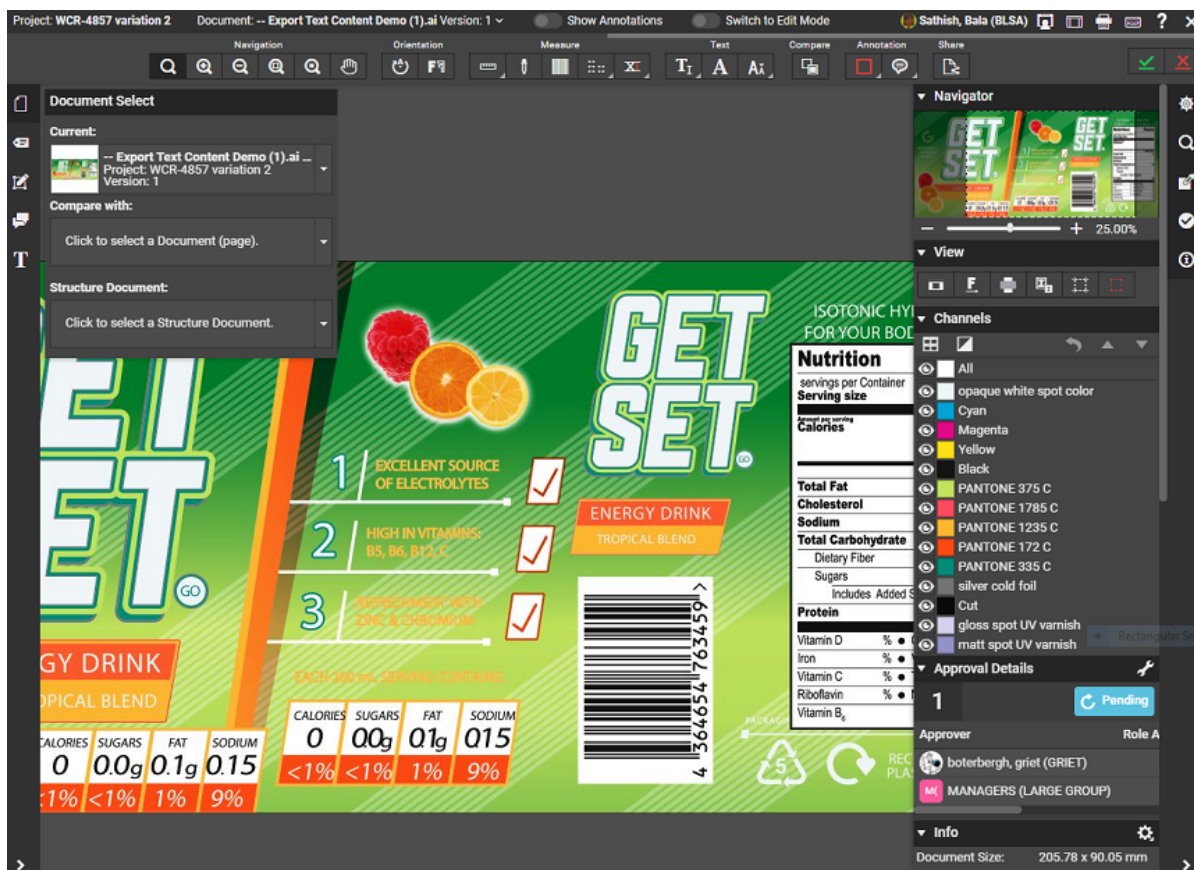
-  [Help](#) on page 686
-  [Document Select](#) on page 660
-  [Attributes](#) on page 679
-  [Annotation List](#) on page 664

## The Viewer Window

The HTML5 Viewer comes with a number of powerful tools that make it easy to navigate, view and compare your artwork and design files.

In the Viewer Window, you can:

- quickly scan for information regarding the active document. For example, you can view the document size, resolution and the axes in the [Info](#) widget.
- inspect the document using the [top tools](#) and [the Navigator widget](#). The channels of the document will be visible in the [Channels](#) widget.
- compare the document to a reference selected via [the Document select widget](#).
- browse and inspect individual pages of your Page List using [the Page List widget](#).
- view the [approval details](#) of your document.
- [approve or reject](#) your document
- view CAD design and CAD layout files. You can see the available layers in the [CAD](#) widget.
- [view the annotations](#) and comment on them. You can also [annotate](#) on your documents.
- [view, compare, annotate](#) and [approve](#) Page Lists and multi-page documents.
- view [CAD Overlay referred in Graphics](#).
- view [document attributes and document reference attributes](#), edit and save them.
- open the [HTML5 Collada Viewer](#) to view documents in 3D. [Viewing 3D in the HTML5 Collada Viewer](#) on page 730



1. [The Information Bar](#)
2. [Top Tool Panel](#)
3. [Toggle Side Bar](#)
4. [Document Select](#)
5. [Attributes](#)
6. [Annotation List](#)
7. [Approval Details](#)
8. The View area
9. [3D View](#)
10. [Navigator](#)
11. [View](#)
12. [Channels](#)
13. [CAD](#)
14. [Info](#)
15. [Help](#)

See also: [HTML5 Viewer video tutorial](#).

### The Viewer Window Layout


The Viewer window will be in the desktop layout if it is opened in a HTML5 compatible desktop browser. When you open the Viewer in a tablet or a smart phone, you will get a mobile optimized layout.

This example layout has:

1. the top panel containing [the information bar](#) and [the top tool panel](#).
2. the central panel where you will see the document / image being viewed.
3. the left sidebar
4. the right sidebar
5. collapsed widgets.
6. a modal widget

### Customizing the Viewer Window Layout

You can customize your window to suit your needs. You can:

- click-drag:
  - a widget to the center of the window (outside of the side panels).  
This will make this widget a modal window. You can make a widget modal when you want this to always appear in the Viewer even when the browser window becomes small. The widget will remain modal even when you restart the Viewer.
  - a widget up or down in the same panel.
  - a widget from one panel to the other.
- collapse or expand a widget by clicking on its header. The sizes of the widgets in the side panel will adjust according to its contents. The scroll bars will help you navigate within the widgets.
- adjust the width of the side panels by dragging the border line.
- use the **Toggle Sidebar**  option to collapse the sidebars.



**Note:** Your layout settings will be saved for your next use.



See also [The Viewer Window](#) on page 638.



**Note:** If your browser window becomes too small, the sidebars will be collapsed automatically. Make your window larger to view the sidebars again. The modal widgets will stay in its location.


### Opening a Document in the HTML5 Viewer

To **View and Annotate** in the HTML5 Viewer, you have to set your **Viewer Type** in the Preferences.

- To open a document in the Viewer, click the document's thumbnail or the  button.  
You can do this from:
  - the **My Work** page (under **My Approvals** if you have documents to approve or under **Approvals to Follow Up** if you are an **Approval Master**)
  - the **Documents** tab in the project
  - the header of the Document Details page.
  - the **View and Annotate** link in the Documents/Bill Of Material page
- To load multiple documents into the Viewer, select them and choose **Actions > View and Annotate** .
- To open a document in 3D, click  from the [CAD](#) on page 683 widget or the [Document Select](#) widget. Read more in: [Opening Documents in the 3D Viewer](#) on page 733 and [Viewing 3D in the HTML5 Collada Viewer](#) on page 730.

### The Information Bar

The Information bar displays:

- The **Project** name
- The **Document** name
- The **CAD info icon**: If your CAD files were saved using ArtiosCAD 14.0.2 or newer, you will see CAD info icons . The icons are:

- Grain/Flute direction (Horizontal or Vertical)



- Side (Inside or Outside)
- Die Side (Die Knife Side or Back Side, only for MFG files)
- The **Version** number and the **Revision** letter.



**Note:**

In **Compare** mode, the two document names and version (revision) details will be visible separated by **/**.

**compare1b.pdf (Version: 1) / compare1a.pdf (Version: 1)**

- **Show Annotations** toggle button to make annotations visible in the document viewed.
- **Switch to Edit Mode** to enable editing functionality for AI (Adobe Illustrator) or PDF documents. This option comes with the Automated Artwork license.
- **Switch to Deep Zoom Mode** to enable Deep Zoom functionality on AI (Adobe Illustrator) or PDF documents. This option comes with the WebCenter Cloud Viewer license.
- The **User Name**



**Note:** This will be used in **Annotations** and **Approvals**

- **Configure Workspace** to customize workspace according to the user preference or switch to another workspace according to the user role. Read more about Workspace in Viewer [here](#).




**Note:** You can also switch between 'light' and 'dark' style viewers in the workspace configuration.




- **Page Navigator** :

This is only available when a multi-page document is active.


Use this to navigate through the pages of open documents. Or navigate to a page by typing in the number and pressing **Enter**.


Read also [Viewing Multi-Page Documents and Page Lists](#) on page 719

- The **Print**  button. This opens the [Print Dialog](#).

- The **Reset**  button. Use it to reset the layout of the viewer to the default.
- The **Show Keyboard Shortcuts** button .  
Click this or type in **?** to see the keyboard shortcuts.
- To **Display Help Pages**  button to open help pages.



**Tip:** To access online help, use the keyboard shortcut **F1** or click .

- The **Close** button . Use this to close the viewer and return to WebCenter. If changes have been made to *annotations* or to the *approval* state, the user will be prompted to save or discard the changes.

### Viewer Workspace

A Viewer Workspace is a customizable set of tools and widgets for a user in the viewer. Every user has a workspace assigned based on the role of the user in the project, a personal workspace or the system default and same can be customised by the user in the Viewer.

Admin users can choose to change the default workspaces to show/hide more widgets and tools for each User or Role. To make the change to the workspace in the Viewer, navigate to the **Information Bar > Configure Workspace** option.

Read more about Workspace configuration by Admin Users [here](#).

#### Choosing a Workspace in Viewer

When the user is present in more than one role in any of the projects the document is present in, then a drop- down with all the available user roles and its respective workspaces are available for selection. You can choose the workspace you want to use in the Viewer.

#### Widgets and Tools Configuration

To customize a workspace as per your requirement, select the option **Configure Workspace**. A pop up window is available to make changes to the workspace.





Firstly choose the workspace that you wish to use and configure. You can also choose the **Color Theme** of the viewer specific to the workspace.

Tools and Widgets set to Available or Visible for the workspace by the Admin user are shown. You can further configure to suit your requirements.








- **Visible:** Check box is selected for for the tool or widget and is currently available in the viewer.
- **Available:** Check box with a dash or dot ( depending on the viewer). Tool or Widget is available but unchecked and can be checked and added from the viewer.
- **Hidden:** These are not available in the Viewer Workspace at all and means it is a unselected by the Administrator in the Setup.

Any configuration changes made to a workspace does not have any impact on other users and are saved only for the specific user. You can undo the changes made to your workspace by selecting **Reset Workspace**.

### Top Tool Panel



The Top Tools Panel contains some of the Viewer's most used tools. They help you in document interaction.

#### Navigation Tools

-  Zoom tool
-  Zoom in tool
-  Zoom out tool
-  Zoom to 1:1 Pixel
-  Zoom to Actual Size
-  Fit Document in View tool
-  Pan tool






See [Interactive Zooming](#) on page 646 for more information.

#### Orientation Tools

-  Rotate view tool
-  Mirror view tool

See [Rotate and Mirror](#) on page 648.

#### Measure Tools

-  Ruler tool to [Measure Distances and Angles](#) on page 648
-  [Measure Color Percentages](#) on page 651 (densitometer) tool
-  [Check Bar Codes](#) on page 654 tool
-  [Check Braille](#) on page 651 (Powered by Global Vision) tool
-  [Caliper](#)




#### Text

- **Select Text**
- **Detect Font**
- **Check Font Sizes**

### 3D Tool





- If you have opened a document in the [HTML5 Collada Viewer](#) once, the top tool panel will show an **Open 3D View**  button.

### Annotation Tools

-  [Hide Annotations](#) on page 697 tool
-  [Add Annotation](#) on page 686 tool
-  [Note Annotation](#) on page 690 tool







See [Annotating in the Viewer](#) on page 686 for more information.

### Page List Tools (only when viewing a page list / multi-page document)

-  Reader Spread view  
Read more in [Reader Spread View](#) on page 720
-  Arrows to navigate between pages or spreads
-  Mark the active page. A yellow star indicates that the active page is marked.
-  Clear Mark from the active page.

### Compare Tools (only when comparing)

You can only see the **Compare** tools when you have two documents open to compare (see ).

-  View Current Version
-  View Reference Version
-  View Both- Blinking
-  View Both-Show on Top
-  View Both-Show Difference
-  View Both- Side by Side

See [Compare Documents in the Viewer](#) on page 704 for more information.

### Share Files

-  **Share for Viewing**



### Approval Tools (only when an Approval Cycle is set up)

The Approval tools are only available when an **Approval Cycle** is set-up and you are an approver for the document. The number of Approval tools may vary depending on the approval setup.

-  Approve

-  Reject
-  Forward
-  Comment

If you are the Project Manager in WebCenter, you have tools to


-  Force Approve
-  Force Reject


See [Approval](#) on page 701 for more information.


### Interactive Zooming

You can use the **zoom** tools from the [Navigation Tools](#) to view the fine details of your file.


#### Activating the zoom

Select the Zoom tool  to activate the zoom. Alternatively, activate the Zoom tool by pressing the **Z** key.

When Zoom is activated, the mouse pointer changes to  icon. Use the following shortcuts to effectively use the zoom function.

Click	Zoom in by a factor of two
Right -click	Zoom out by a factor of two
<b>Alt + click</b>	Reverse the zoom to Zoom out 
scroll	Zoom in/out with the location of the mouse as center.



**Tip:** Double-clicking on the zoom tool  will fit the document back to view from whatever zoom factor it was in.

#### Zooming into a specific area

Use Click-drag action to zoom into a specific area to examine the finest details of your document. When you hold the left mouse button and drag, a selection rectangle will appear. You can change the size of the selection rectangle by dragging the mouse without releasing the left mouse button.


To move the selection rectangle around, hold the left mouse button and **space** bar while dragging.

When the left mouse button is released, the viewer zooms to fit this rectangle.

If you are zoomed in with a ratio 1:10 or more, each document pixel is displayed with a small border as a grid. In compare modes, you will see the active document area as grid.

#### Zoom to 1:1 Pixel

When you have artwork with a defined resolution, you can use it to zoom to the image resolution.

- Right-click on  and select from:
  - **Zoom to 1:1 Pixel:** use this to view the image in its rasterized resolution.

- **Zoom to Actual Size:** use this to view your artwork or image in the size corresponding to the printed size. You may need to set your monitor resolution to make this accurate.




**Note:** When the monitor resolution is not set or when the image resolution is not set, the Viewer takes 72ppi as default.

- **Set Monitor Resolution:** use this option to set your monitor resolution. Your set monitor resolution will be stored in the Viewer.
  - You can specify the resolution as a decimal number (e.g. 36.05 ppcm) or as a fraction in the `pixels / size` format. Read more about this in the [Knowledge Base article](#).




**Note:** Your settings will be saved for your later use.

### Using the Pan Tool

To pan the view, click the  Pan tool or activate the Pan tool by pressing the **H** key. The pan tool lets you grab a location in the document and drag it to a new location.



**Tip:**

- You can pan the document by holding the **space** bar and dragging a line in the Viewer window. When you release the **space** bar, it returns to the previous mode.
- For a single pan action, use the .



**Tip:**

- While panning, you can zoom in/out with the mouse point as the center in the following ways:
- double-click to zoom in
  - right-click to zoom out
  - scroll to zoom in/out

### Using the Navigator



When you are zooming in the document, the navigator shows the highlight area as the zoomed area. To pan the document, hold the mouse and drag this selected rectangle around. The central view port will display the area correspondingly. Clicking outside the rectangle will move the rectangle to the clicked point and update the current visible area.

When the **zoom** is not activated, you may use these short-cuts to work with the zoom.

<b>Ctrl + / Cmd +</b>	Zoom in one step
<b>Ctrl - / Cmd -</b>	Zoom out one step
<b>Ctrl 0 / Cmd 0</b>	Zoom to fit. This will adapt the zoom to fit the entire image in the current window.
Double click the zoom tool	Zoom to fit

### Rotate and Mirror

You can rotate or mirror the document in view using the [Orientation tools](#)

-  **Rotate view:** Rotates the current view by 90 degrees clockwise.
-  **Mirror view:** Mirrors the current view.

Use this to flip the document vertically from the center of the screen. If you are zoomed into an area, the center of this area will be used as the reference.



**Tip:** The shortcut **Ctrl+M** can be used to flip the view.

### Measure Distances and Angles


The **Ruler** tool calculates the distance between any two points in the work area with a click-drag-release action.




When you measure from one point to another, a line is drawn and you can see measurement information such as:

- The starting location (X and Y).
- The angle measured relative to the axis (A).
- The total distance (D), the Horizontal Distance (W) and the Vertical Distance (H).

in a pop-up in the View.





#### Measuring the distance

1. Select the  Ruler tool.
2. Specify the measurements in the pop-up tool bar that appears below.


- : Displays the Angle (A) and the Distance (D)
- : Displays the starting and end location (X and Y)
- : Displays the horizontal (W) and vertical (H) distances traveled from the x- and y-axes.



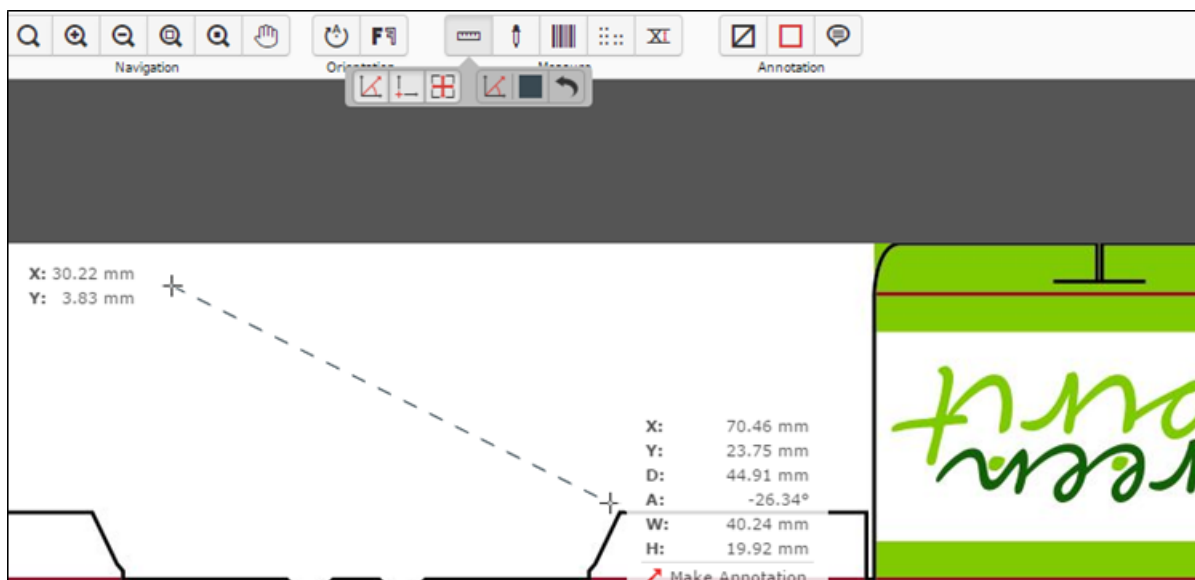
**Note:** You can choose to display all of the measurements by selecting all of the above. If you select just one, corresponding measurements will be displayed.

- : Displays the Angle (A) positive upwards (Counter Clock Wise)
- : Displays the Angle (A) positive downwards (Clock Wise)
- : Changes the color of the Ruler line in the View
- : Resets the color of the Ruler

3. Drag from the start to the end point.

An information pop-up located at the end point will display the measurements. The location  will be visible at the start point.

You can drag the line to another point and the ruler will update its measurements. To move, drag the start or end point to another location.

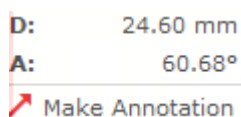


**Note:** While viewing CAD data, then the **Ruler** will snap to the end points of most line segments in the CAD drawing.





**Tip:** The Ruler tool can be combined with different view tools. You can for example indicate a certain point, then change the view by zooming out, navigating, and then indicate the second measuring point.

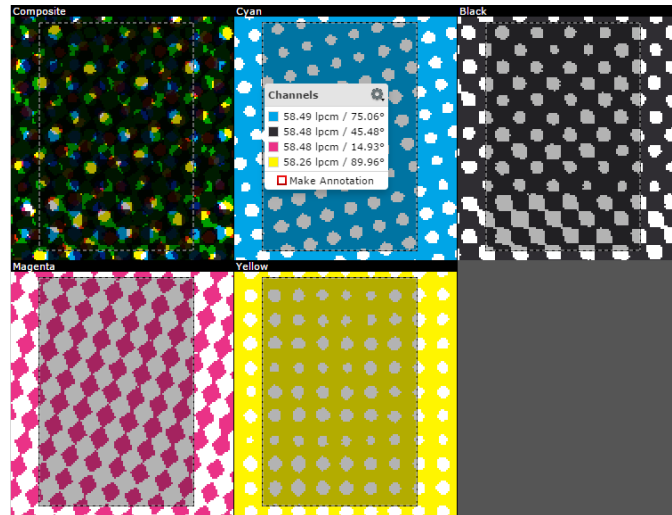
To make an annotation from this pop-up, click on the **Make Annotation** option. You will get an arrow annotation with the current measurements as its content.




### Measure Screen Ruling

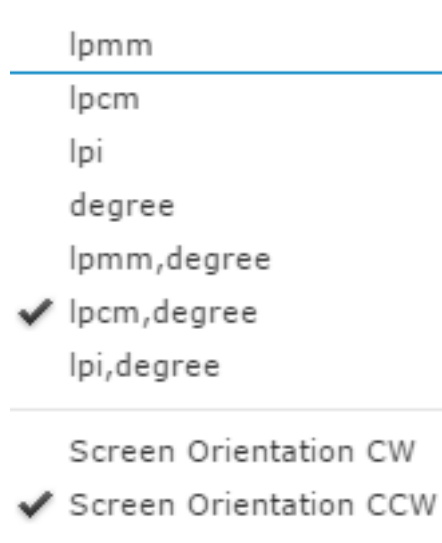
You can use the **Screen Ruling and Angle**  tool to measure the ruling and angle in digital film files.

Click  to activate the tool and then select a point in your file or drag it to measure within an area. The measurements are shown in [the Channels panel](#) and in a pop-up near the point or area you measured.




For each measured channel, you can see the lines per millimeter (lpmm) and the angle (degrees) of the line in the pop-up. When there is no screen in a channel, the value will be blank.

You can change the units of the measurements from the information pop-up. Click the **settings**  button and select your preferred units. Your units will revert to the User Preference settings when you close the active session.




To change the orientation of the angle to either clockwise (**Screen Orientation CW**) or counter clockwise (**Screen Orientation CCW**).

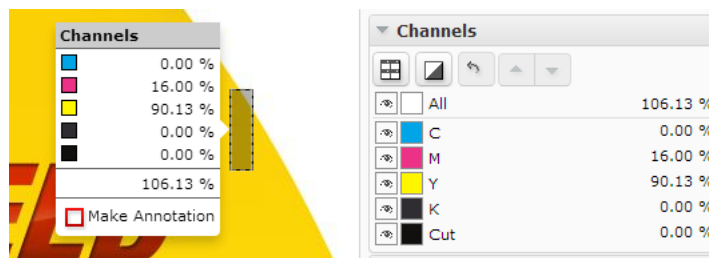
To make an annotation from this pop-up, click on the **Make Annotation**  option. You will get a rectangle annotation with the measurements as its content.




### Measure Color Percentages

You can use the densitometer  tool to measure ink coverage at a certain point or at the selected area.


Click in your file with the densitometer tool to measure the color percentages at a certain point, or drag it to measure densities within an area. The densities are shown in [the Channels panel](#) and in a pop-up near the location you measured.




You can also click the  tool button to make a measurement based on the current view. In this case, the densities are only visible in the **Channels** panel.




**Note:**

While viewing Digital Film files, you can change the units of the information pop-up. Click the **Unit Settings**  button and select your preferred units. Your units will revert to the User Preference settings when you close the active session.


To make an annotation from this pop-up, click on the **Make Annotation**  option. You will get a rectangle annotation with the measurements as its content.

### Check Braille

**Check Braille**  tool allows you to analyze and interpret the Braille text in the selected language.



**Note:** The tool is visible only when the system has an Advanced Approval License.

Select the area around the Braille text with a click-drag-release action. You can also select the Braille text area and click the  tool to interpret the selection. The result appears in [The Channels Panel](#) and in a pop-up near the location you measured.



You can choose the language from the language list by clicking on the current language visible under the braille tool.



**Note:** By default, English is selected. See also: [Braille Languages Supported in the Viewer](#) on page 652

The tool checks the validity according to the Marburg Medium Braille Specification. A green tick-mark indicates a valid Braille. If the selected Braille contains at least one regional code that doesn't pass these checks, you will see a warning.




**Note:**

The validation check has a Tolerance of +/- 0.1 mm and a dot diameter range of 1.3 – 1.6 mm. See details below:

- 2.5 mm horizontal dot to dot
- 2.5 mm vertical dot to dot
- 6.0 mm from cell to cell
- 12.0 mm from cell to cell with single space in between
- 10.0 mm line spacing

When multiple lines are present in the Braille text, a line number in square brackets will be shown before the text of each line. For example, [1] for the first line.

■ [1] boots cold and flu [2] relief echinacea

To make an annotation from this pop-up, click on the **Make Annotation**  option. You will get a rectangle annotation with the measurements as its content.

**Braille Languages Supported in the Viewer**



// 1: English

// 2: French

// 3: Polish  
// 4: Portuguese  
// 5: Russian  
// 6: Spanish  
// 7: Finnish  
// 8: German  
// 9: Italian  
// 10: Latvian  
// 11: Romanian  
// 12: Slovene  
// 13: Swedish  
// 14: Hungarian  
// 15: Dutch  
// 16: Maltese  
// 17: Danish  
// 18: Greek  
// 19: Bulgarian  
// 20: Czech  
// 21: Estonian  
// 22: Lithuanian  
// 23: Irish (Gaelic)  
// 24: Albanian  
// 25: Basque (Spain)  
// 26: Belarusian  
// 27: Catalan (Spain)  
// 28: Croatian  
// 29: English (UK)  
// 30: Faroses (Denmark)  
// 31: French (Traditional)  
// 32: Galician (Spain)  
// 33: Greenlandic  
// 34: Icelandic  
// 35: Kazakh  
// 36: Norwegian  
// 37: Serbian  
// 38: Slovakian

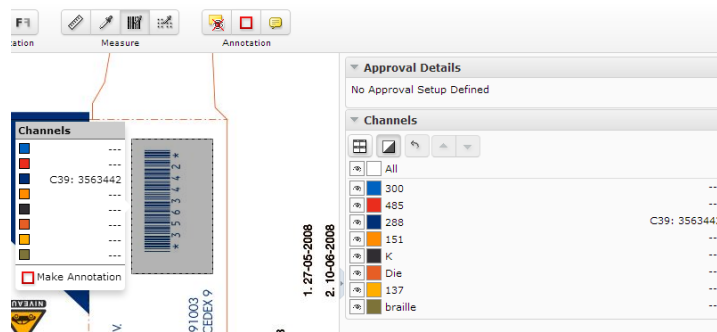
- // 39: Turkish
- // 40: Ukrainian
- // 41: Uzbek

**Check Bar Codes**

Use the Check Bar Code  tool to analyze and interpret the Bar Code text in the selected language. Select the area around the bar code with a click-drag-release using the left mouse button. You can also select the area and click the  tool to check the bar code. The result appears in [The Channels Panel](#) and in a pop-up near the bar code.

The following information will appear in a pop-up:

- **Type:** The bar code type
- **Value:** The encoded value
- **Magnification:** The bar code magnification in percentage (visible only when the value is not 100%).
- **Bar Width Reduction:** The line width compensation in mm. (visible when the value is not 0).




**Note:** The information will be displayed in the following order :


<Type>: <Value> <Magnification> % [<Bar Width Reduction> mm]






The tool is visible only when the system has an Advanced Approval License.

To make an annotation from this pop-up, click on the **Make Annotation**  option. You will get a rectangle annotation with the measurements as its content.

## Caliper

Use the **Caliper**  tool to measure and standardize the height or width of aligned objects in the Viewer. For example, you can use this to check the text height in your artwork. You can create a **Preset** to customize your Caliper to your standardization and compliance needs.

Click the Caliper  button from the **Measure** tools to activate the tool. You will get the **Free** style as the default Caliper form. In the sub tool bar, you can:

- select the **Style**. Choose from the **Style** options:
  - **Free** (Default)
  - **Fixed**
  - **Preset**
- specify the **Gap** Size which is the distance between the start and end lines. If your selected **style** is:
  - **Free**, changing the **Gap** size will alter the end line.
  - **Fixed**, the distance between the start and end lines update according the **Gap** size.
  - **Preset**, the saved **Gap** size will be applied
- define the orientation as either vertical ( **H**) or horizontal ( **W**).
- **Save** the **Gap** size and orientation as a **Preset**. The saved **Presets** will be added to the **Style** drop down. Use the **Delete Gap** option to delete the saved **Presets**.

### Free (Default option):

- Hold down the left or right mouse button to draw the start line and drag to the end line. Release the mouse when the desired width or height is achieved.
- To adjust the height / width, simply drag the lines. You may also move the caliper form from one location to another.

If the horizontal distance between two selected points is larger than the vertical distance, you will get a vertical form to measure the width.

If the vertical distance measures more than the horizontal, you will get a horizontal form to measure the height.



**Note:** The Caliper tool will switch to horizontal or vertical orientation corresponding to the direction of your mouse movement.

A pop up will display the current gap size and the X / Y coordinate of the end line. The information is updated when you move the lines of the Caliper.

- You can **Save/Delete** the **Gap** size and the H / W as a **Preset** on your profile. This allows you to have a customized Caliper form for your future use.

### Fixed:

In this mode, you can specify a fixed **Gap size**. Use this when you want to standardize your artwork object to a pre-determined size. For example, if you have a certain text height needed in the artwork, specify that as the gap size and check the artwork text.

- Specify the **Gap** size.

- Use **H** or **W** button to fix the Caliper orientation.



**Note:** When it is fixed, the your mouse movement will not alter the Caliper orientation.

- Hold down the left or right mouse button to draw the start line and the end line will be drawn according to the **Gap** size.
- Click **Save** to create a **Preset** with the current measurements (the gap and the orientation).

**Preset:**

Select your saved **Preset** in the **Style** selector. Hold down the mouse to draw the lines with your preset **Gap** size and **Style**.



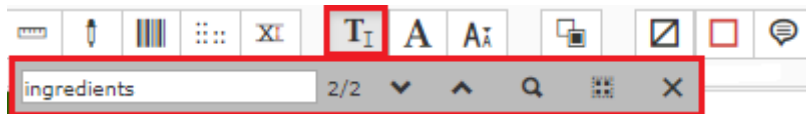
**Note:** In the **Fixed** and **Preset** mode, you can grab the start or end line to drag the form to another position.

Press **Esc** to revert to initial state (no lines drawn).

**Text Selection in Viewer**

You can select the text in the document by clicking on **Text Selection** button for any PDF, AI files and documents with SVG perspective in the Viewer.

When you select the text, you can also



- **Search in text:** Search for specific text in the sub toolbar of the text selection tool. The searched text is highlighted which you can zoom to or navigate to the selected text using the previous and next buttons in the sub toolbar.
- **Select all text:** Select all the text statements in the document using the **Select All** . You can also alternatively select all the text using Ctrl+A keys in the keyboard. Right click on the selected text to either highlight the text or add an annotation or copy.

You also have an option to find the font and the font sizes used in the document.

- **Detect Font :** Click on this icon and then click on a selection of text to detect the font in the selected text. A pop over is shown with the Font, Font Size, Selected text and an hyperlink to make annotation.




- **Check Font Sizes:** Click on this icon and then select the font size using the text box or slider to detect text which text is smaller than the selected font size.

## Text Edit Mode

### Switch to Edit mode

You can edit the text in the artwork document by enabling the **Switch to Edit Mode** option. This allows you to correct or change the text instantly from the WebCenter Viewer.

Click on the **Switch to Edit Mode**  icon, to switch to edit mode. Following widgets are enabled when you Switch to Edit mode.

- Annotation Widget
- **Files marked for edit widget**
- **Actions widget**
- Channels widget
- Navigator widget
- Info widget
- Help widget
- Zoom/Pan tools
- Rotate/Mirror tools
- Text Selection tools
- **Switch back to view mode and save button**

You can choose the files where the text has to be edited in bulk in **Files Marked for Edit** widget.

### Deep Zoom Mode

You can load the artwork document in Deep Zoom Mode by clicking the **Switch to Deep Zoom Mode** option. Deep Zoom functionality allows you to view Vector Graphics details with more accuracy. Apart from that, Deep Zoom Mode brings some additional functionality.

### Layers Widget

When a graphical document containing layers is opened in the Viewer's Deep Zoom mode, the Layers widget becomes available, showing all the layers of the opened document. If no layers are defined in the document, the Layers widget is hidden. Each layer can be enabled or disabled by clicking the eye checkbox. The header contains an option to enable/disable all layers. Right-clicking an individual layer's eye icon will only show that specific layer and disable all other layers.

The Layers widget also displays which layers are printable. When opening the application only the printable layers will be enabled. The user has a reset arrow button available in the header of the widget to return to this initial state at any time.

Some layers also have a type (or Processing Step), and a checkbox if the layer is marked as printable. By default, when opening the application only the printable layers are enabled. If at least one layer has a type specified, the user has a filter icon in the type header that allow him to disable/enable the processing steps by type.


### Color Management Widget

When viewing a document in Deep Zoom mode, the Color Management widget is available. This widget allows you to enable and disable color managed viewing. When enabled, it will load the embedded color profile and display the name of that profile.

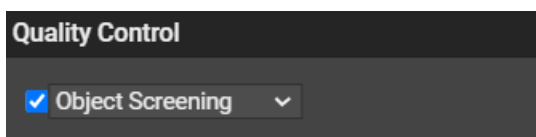
If no color profile is embedded, it will fall back to "ISO Coated v2 300% (ECI)".

**Quality Control**

The Quality control widget is used to check the print readiness of a PDF document. This widget is not available by default. The widget is displayed whenever the Administrator enables it to a user in the Viewer Preferences of Share and Approve.

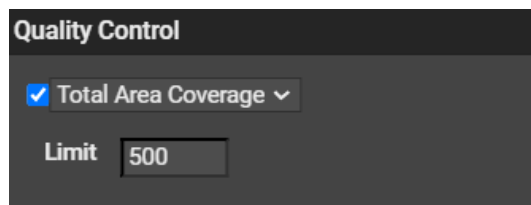
To enable the Quality Control, click the Quality Control tool  and select the views from the drop-down.

**Object Screening**



Using the Object Screening Preview, which is the default option, you can get an indication of what Screening Set is used on what objects. Objects using a specific screen set is shown in the document window. Areas where multiple screen sets overlap are shown in different colors.

**Total Area Coverage**



The Total Area Coverage (TAC) is the sum of all separation-densities at a certain point in your document.

To enable the Total Area Coverage preview, select "Total Area Coverage" from the Quality Control dropdown list

Once the Total Area Coverage preview is enabled, the image in the preview pane is dimmed and areas where the sum of the densities is higher than the TAC limit specified in the current Press Setting are highlighted.

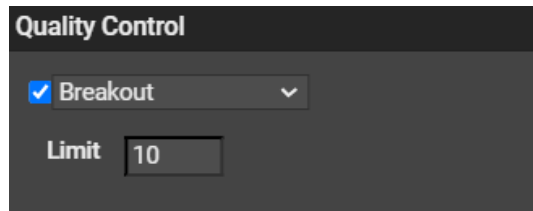
**Limit**

Limit is the maximal Total Area Coverage that your document may contain. This value depends on the press and the substrate the design is printed on. Printer should provide you with the TAC Limit value to use.

You can set the value up to 500%.



**Breakout**



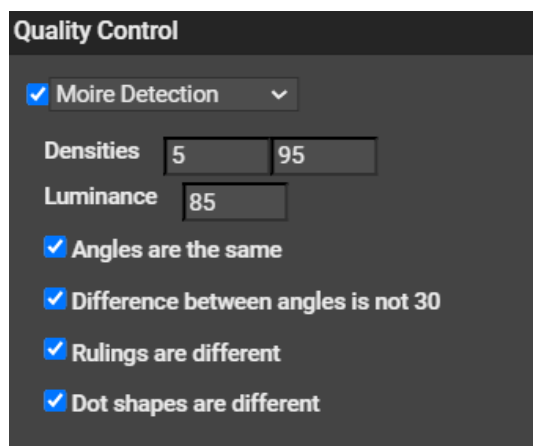
A Breakout is an area where the percentage of a single separation is lower than the First Printable Dot value. This is used to track areas that are not shown in the print because the values are too low.

Your printer should provide you with the First Printable Dot value.

To enable the Breakout preview, select Breakout from the Quality Control drop-down list

Once Breakout is selected and enabled, all areas where a single separation has a value lower than the First Printable Dot value (but higher than 0%), will be displayed in highlight color.

**Moire Detection**



Using the Moiré Detection preview, you can detect possible screening problems in your document.

If you enable Moiré Detection, the document is shown dimmed, and areas with possible screening problems are highlighted.

A possible screening problem exists if one of these conditions is met:

- the angles for the separations used in that area are the same or do not differ 30 degrees.
- the rulings for the separations used in that area are different.
- the dot shapes for the separations used in that area are different.

**Open 3D View**

If you have opened a document in the [HTML5 Collada Viewer](#) once, the top tool panel will show an **Open 3D View**  button.

Click this to generate the [3D View](#).

### Finishing Profile

When you select the 3D button in the top bar, two new widgets appear namely

- **Print Finishing**
- **Geometry**

When your document is a PDF or AI Document, it is possible to simulate the Finishing effects in the 3D Viewer. To do that, the user can select a **Finishing profile** when a 3D structure is selected in the **Compare** Widget.

The Finishing Profile is a file that can be exported by Studio. When stored in the same project as the Graphic Document or in the StudioManager project, it will be possible to select it in the Viewer.

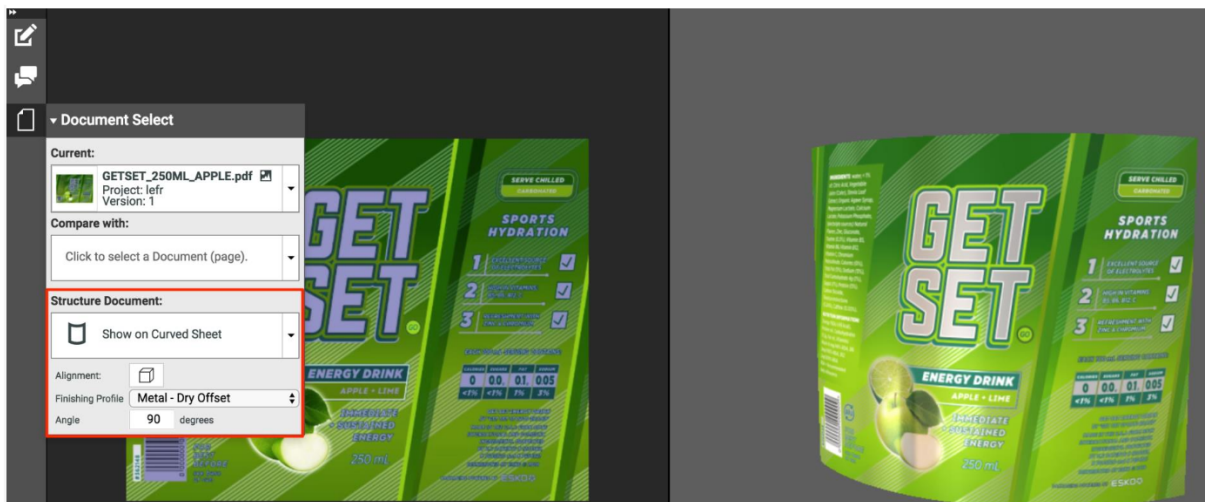


**Note:** Generation of the Graphics with a Finishing Profile may take a while.

### 2.5 D

You can preview your artwork with finishing effects without having a Collada file available. In the **Document Select** Geometry widget in the viewer, you can navigate to **Structure Document** Shape option.

There is a built-in Structure Document curved sheet that is used to see how the artwork would render in a 3D environment. You can change the angle of the curve as per requirement.



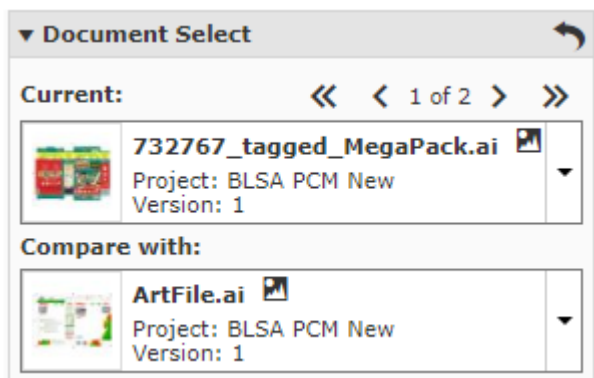
Click on the **Open 3D view** button, to show a surface in the angle that was chosen. The surface contains the graphic, which will follow the selected Finishing Profile.

### Document Select

The **Document Select** panel allows you to select the **Current** view from the multiple files (documents or document versions) loaded into the Viewer.

The panel will contain three document lists:

- **Current**
- **Compare with**
- **Structure Selector** ( only available with Graphic Documents )



From the **Current** list, select the file you want to view. You can switch to different documents view from this list.

You can also add new documents in both Current or Compare With to the list by clicking on **Find More Documents**. This opens a **Select Document** pop up window. You can filter the document based on the Document Name or Project Name.



**Note:** If you do not want to compare documents or versions, leave the **Compare with** field empty.

### Compare To

The **Compare To** list contains the possible reference documents. Select the reference document from this list to compare to the **Current**.

When a reference document is selected from the **Compare to** list, the lower part of the panel will display controls for adjusting **Channel Matching, Orientation** and **Alignment**.

Read [Compare Documents in the Viewer](#) for more details.

### Selecting Documents

You can select the current and the reference versions using the two document selectors in the **Document Select** panel.




**Note:** The reference document type has to be the same as the active document type. For Example, when a CAD document is active only other CAD documents can be selected as the reference.

The [The Information Bar](#) displays the selected active and reference document name and version.

The Viewer will start the last used compare mode except the **Show Current** and **Show Reference** modes.

### Selecting Multi-Page Documents

You can select the **Current** and **Compare to** pages using the two document selectors in the **Document Select** panel.


While comparing multi-page documents, a **Reset**  button is enabled in the **Document Select** header. If you have defined a special mapping for [comparing pages of multi-page documents](#), you can use this to reset the mapping. You have to specify whether to reset the mapping of the active page or for all pages.

Read also [Channel Matching, Orientation and Alignment in Compare Mode](#).

### Structure Document Selector


While viewing a [graphic file with CAD reference](#), the **Document Select** widget will have:

- a Structure Document selector listing all the CAD documents and 3D Documents opened in the Viewer and the [CAD references](#) associated with the graphics file.

If a Structure /CAD reference is found, you will see this in the [document select](#) panel with a link  icon. You can select this to view together with the graphics document. If the graphics file does not have a XMP link, you can use the [document references](#) feature to link them.

To remove the CAD link from the graphics file, click **Turn off CAD Overlay** in the **CAD Overlay** selector and **Save**.

Read more in: [Viewing CAD with Graphics](#).

- **Open 3D View**  button. Click this generate a [3D View](#).



**Note:**

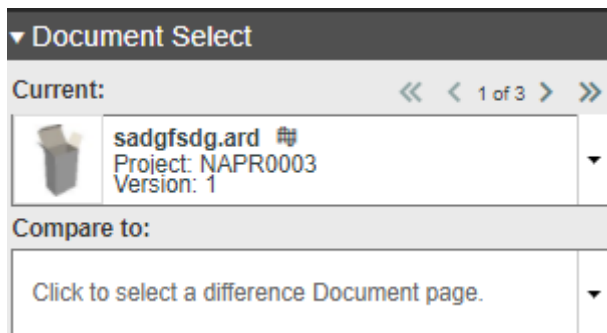
The 3D button will be available in this widget only when it is possible to generate a 3D from the current Graphics and the selected or referred CAD overlay.

Use **Ctrl+S** to switch between Show Current and Show Reference compare modes

### Multiple Documents Select option

You can view multiple documents one by one in the viewer. To view, select the multiple documents in the **Documents** panel and click **View and Annotate**. In the Viewer, **Document Select** panel, you can choose the documents in the **Current** and **Compare to** options.

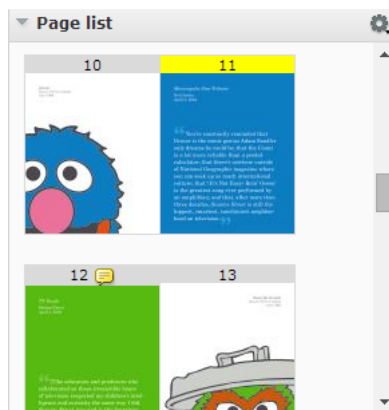
You have the option to go the first document, previous document, next document or to the last document chosen with the arrow keys.



Current selected Document Index displays the number of documents selected and the number of the current document displayed.

## Page List

The **Page list** panel will be available when you open multi-page or page list documents.



Here you can:

- see the thumbnails of all the pages. Each row will contain two thumbnails.
- configure size to **Small Thumbnails**, **Medium Thumbnails** or **Large Thumbnails**
- view a specific page by clicking the corresponding thumbnail. The thumbnail of the active page will be highlighted.
- view the page name or folio for the thumbnails. This allows you to select a page corresponding to a folio or page name.
- view which pages are annotated. These pages will have a note on the thumbnail.
- view the approval status of individual pages of a Page list. A blue circle indicates the pending approvals on a page. Read also [Approval in Page Lists](#) on page 722.



**Note:** You can define page by page approval in a page list. For a multi-page document, the approval set-up is for the entire document.

- view the blank and empty pages as thumbnails. The blank pages of a page list will be displayed as white thumbnails and the empty pages as crossed thumbnails.



**Note:** You cannot view empty pages. You can view the blank pages, but you cannot annotate or compare them.

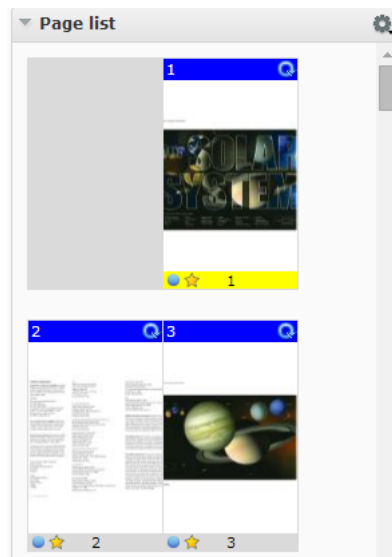


**Tip:** You can collapse other widgets to make more space for Page List panel while viewing large multi-page or page list

Read also [Viewing Multi-Page Documents and Page Lists](#) on page 719

The page thumbnails of a page list or multi-page document are displayed according to the binding type:

- Left edge binding: The first page and the odd numbered pages are displayed on the right. The even numbered pages will be on the left.



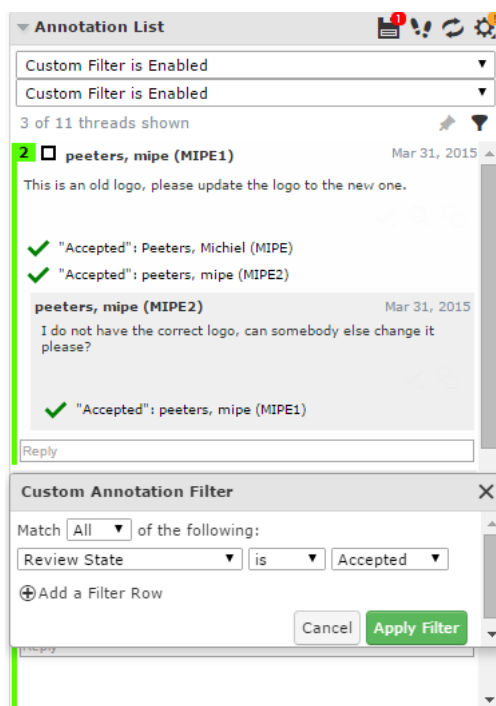
- Right edge binding: the first page and the odd numbered pages are displayed on the left. The even numbered pages are displayed on the right.



### Annotation List

The Annotation list panel provides a listed view of the existing annotations in the currently viewed image. You can collapse this panel to hide the annotation list panel.

You can see them in the created or modified order depending on the [setting](#) and filters. Replies are visible immediately below the corresponding annotation in the created/modified order.



The Annotation list panel has tools to:

- [Save annotations](#)
- [Step through annotations](#)
- **Reload** :

You can **Reload** the annotations of the active image. This reloads all annotations without restarting the viewer. You will be warned about unsaved annotations while reloading.

- [Annotation Options](#)
- [Filter Annotations](#)
- [Create Custom filters for annotations](#)

If you select an annotation either in the annotation list or in the viewport, this will be highlighted in the annotation list. You will also see the possible options concerning the annotation and its replies.

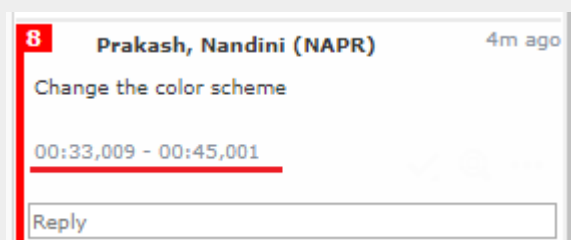


**Note:**

The time will be displayed as **5h ago**, yesterday, 2d ago... To see the exact time, hover over the displayed time.



**Note:** In video annotations, start time and end time of the annotation is displayed in the list.








**Tip:**



If you click and hold the left mouse button on an annotation in the annotation list, the annotation becomes highlighted in the view.

From within the Annotation list panel, you can:

- **Set Review State**  of the annotation
- **Zoom to annotation** 
- If you are the author you can perform more actions via **More actions** 
  - **Edit Annotation**
  - **Duplicate Annotation**

Use this to make a variation (e.g. correction) of an annotation made by another user.

  - **Save Annotation**
  - **Delete Annotation**

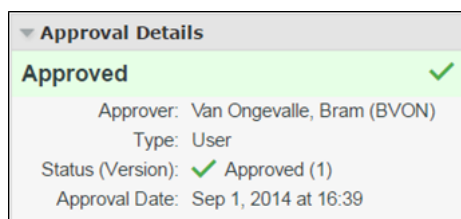
You can only delete comments that you have authored. All the replies to the deleted comments will also be deleted, irrespective of the author.
- Filter annotations by **User** or **Review State**.
- Click  **Edit Custom Filter** to get the **Custom Annotation Filter** window.
- **Lock Filter** by clicking the **pin** .
 

If you lock a custom filter, it stays active for other documents and consequent viewer sessions.

### Approval Details

In **Approval Details**, you can see:

- the current approval status
- the approval actions
- approval info.



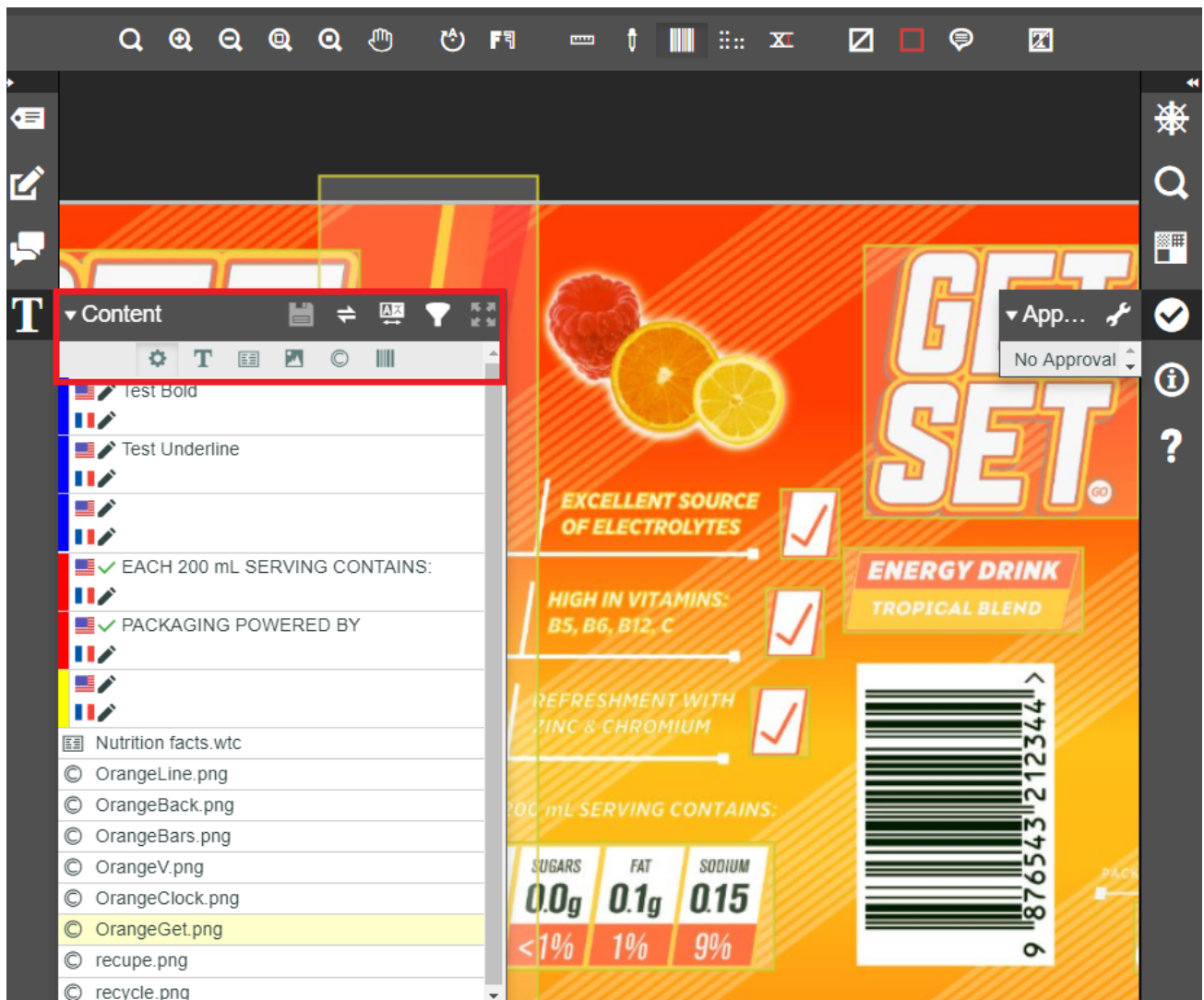
You can collapse/expand this widget and drag it around.

### Content Widget

Artwork documents that contain Images, Symbols, Tables, Text Contents and Barcode as reference documents can be viewed in the viewer. You can view all the above content or filter the specific content to view in the Content Widget.



If the artwork (AI or normalized pdf) contains location information for any of the dynamic elements, then an annotation is shown around the dynamic element.



### View and Filter Content

By default, when an artwork is viewed in the viewer, all the contents of the artwork are visible without any filtering.

You can view all the content in the artwork or you can view and filter the contents based on



- Text Content
- Tables
- Images
- Symbols and
- Bar codes



**Note:** If there are no document references used in the artwork, then the content widget will not be shown.

### Map Locale to Languages

You can view the **locale id** present in the artwork and map it to the languages existing in the project. If either the Project or the Document attribute category contains the hard-coded attributes **LOCALE\_XX**, then locale mapping will be automatically taken from these attributes. If no locale id are mapped to languages in the project or document attributes, then user can manually assign the values in the viewer.

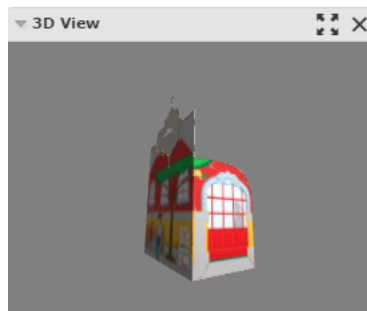
### Compare Artwork with the requirements.

Read more about it [here](#).


### 3D View

The **3D View** widget always shows the HTML5-version of the 3D viewer.

After the 3D generation, you can view the 3D mockups in this widget.



From within this widget, you can:

- **Open the 3D Viewer**  in a new window
- close the **3D View** widget.

### Navigator

When you open a document in the Viewer, you can view its thumbnail in the **Navigator**. This gives an overview of the current view position. Use this widget to quickly navigate through the entire document.

The navigator highlights the area visible in the view port with a dotted rectangle. If the zoom is not active, the dotted rectangle will be around the entire document.



When you are zooming in the document, the navigator shows the highlight area as the zoomed area. To pan the document, hold the mouse and drag this selected rectangle around. The central view port will display the area correspondingly. Clicking outside the rectangle will move the rectangle to the clicked point and update the current visible area.

You can see the current zoom percentage at the slider bar located below the document thumbnail. You can adjust the slider or click the + or - to adjust the zoom level.




**Note:** By default, this widget is available on the right sidebar. You can drag this widget to the center or to the other sidebar.

### Info

This widget displays information about the document being viewed. You can see the following info:

- the size of the active document
- the size of the trim box of the current page
- the resolution of the active document. If you are in compare mode, it will display the resolutions of the current and reference documents.
- the current mouse position in the document
- the current selection within the current page document when using measuring tools

In this widget you can change the units for resolution and measurements. To change, click  and select your preferred units.



**Note:**

The changes made will be applied to all of the Viewer measurements for the current session:

- Offsets in Compare panel
- Information Pop-ups of all measurement tools and Caliper tools



**Note:**

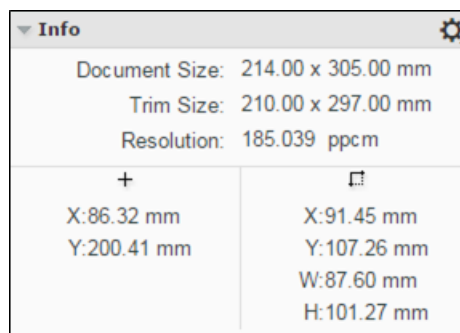
The changes made from the info widget are applied only to your current session. The next time you start the Viewer, the units will be reset to the WebCenter User settings.



**Note:**

To switch units for resolution and measurement, use shortcut keys. While switching, it takes the values of the next unit from the drop down list.

- **Ctrl+U** to toggle the units for the sizes used in the Viewer.
- **Ctrl+Shift+U** to toggle the units for the current resolution and screen ruling units.



**View**

This widget contains advanced tools for view manipulation such as:


- [changing the background color of the image or window](#)
- [view from the back](#)
- [highlighting overprint with colours](#)
- [viewing or hiding the trimbox\(margins\) and clipping to trim box](#)
- [viewing in inverse colors](#)
- [compensate distortion and scaling while viewing](#)

**Change Background Color of the Image or Window**

You can use this tool to manipulate the view with a different background color other than white. This is especially useful when you are evaluating an image that will be printed in a colored background.

When you click the **Change Image or Window Background Color**  tool, you will get an additional row of tools in the View widget.

- **Change Image Background Color...** 

When you activate this option, you will get a color picker. Select the image background color and click  to return.




**Tip:** You can also click outside of this color picker to close the color picker and inspect the image with the new background.

- **Change Window Background Color...** 

Select your color as described above and inspect the image with the new window color.

- **Change Both Image and Window Background Color...** 

When you activate this option, you will get a color picker to select a color for the image and window background. Select the image background color and click the  to view the result.




**Note:** Your color choices are remembered for your next session. When you enable the background color options, the same colors will be available.




- **Reset Background Colors** 



**Note:** The Viewer retains the last used colors for your next session. However, if you select different background colors for different pages or documents, those will be remembered only in the current session.


To turn off the tool and view the image with white background, click the  again.


### View from Back

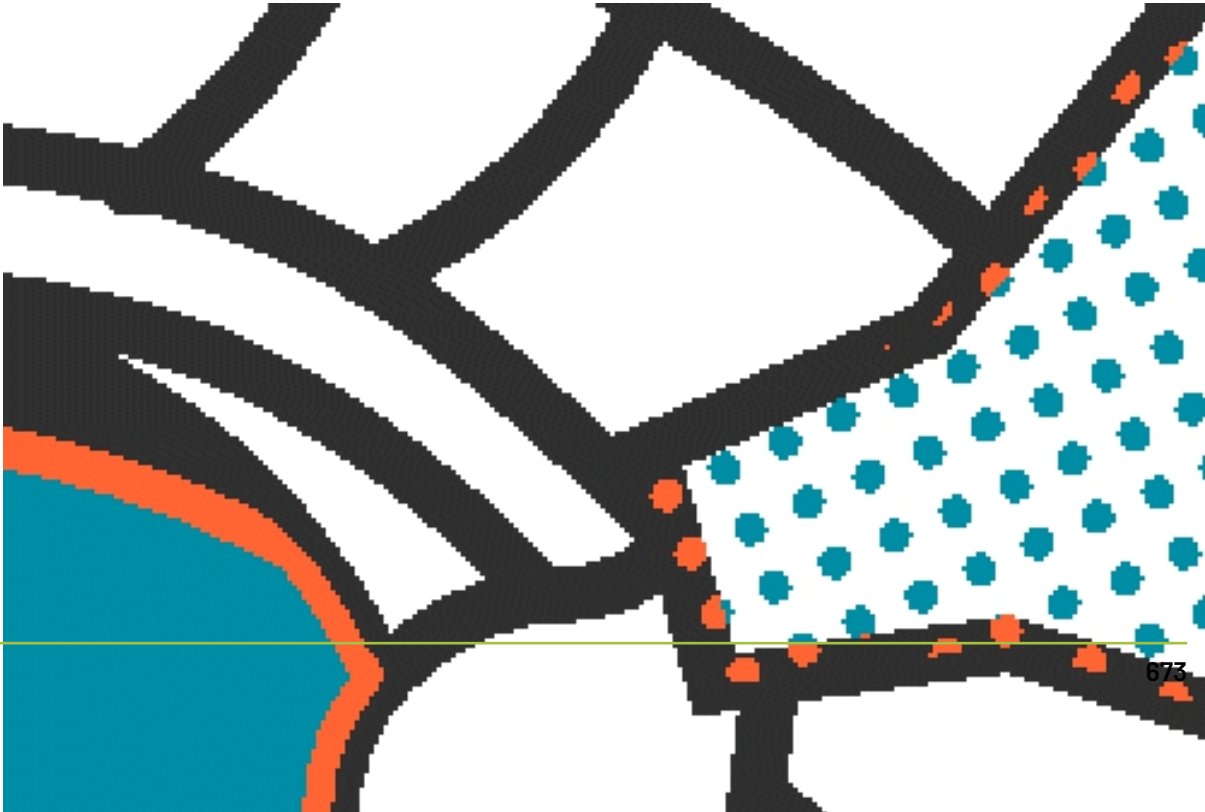
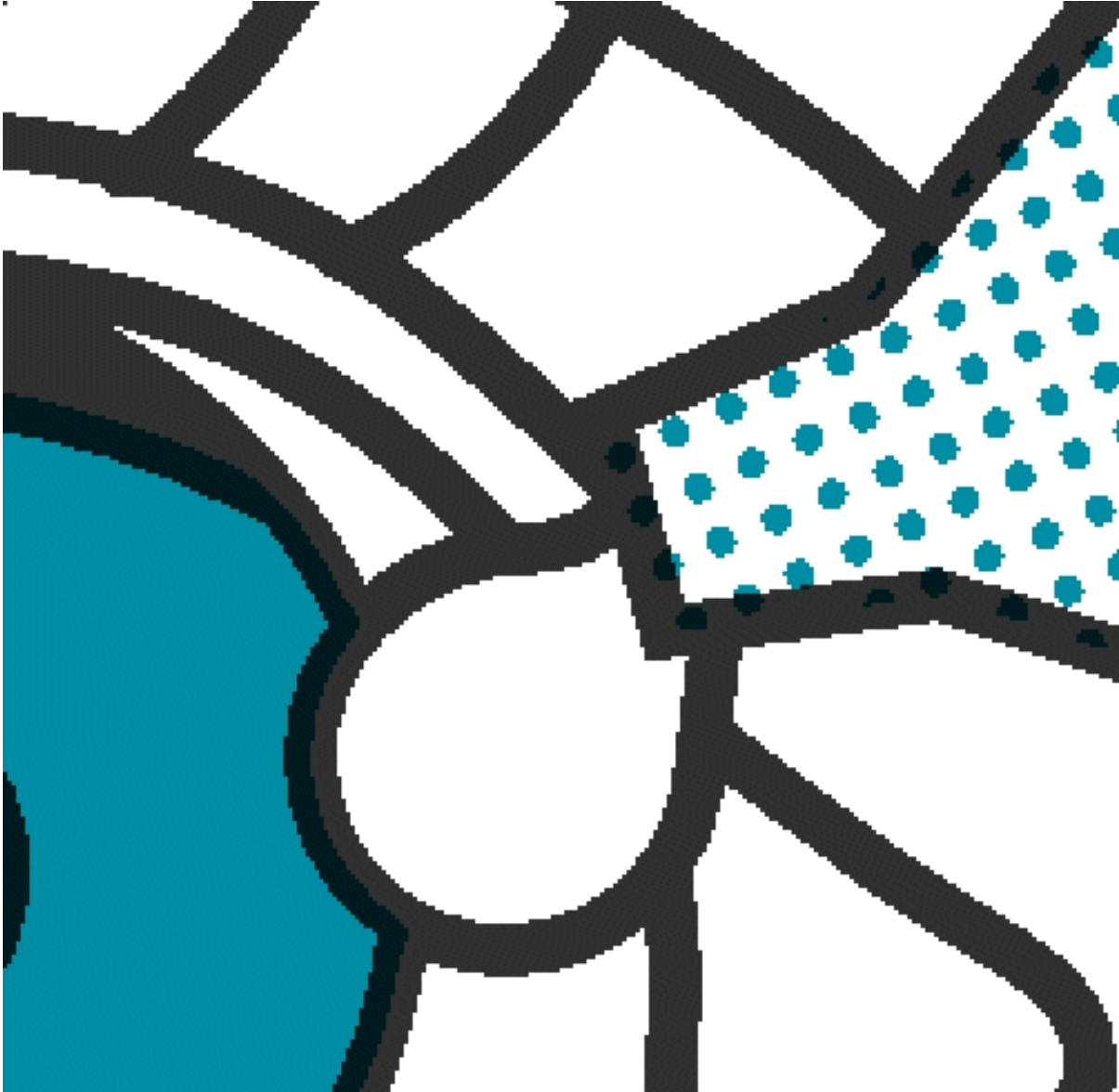
Use the **View from Back**  to mirror the view. You can see the image from the back and the channel sequence will be reversed.

This is a useful tool if you are inspecting an image to be printed on a transparent medium.

### Set Overprint Highlight Color

The **Set Overprint Highlight Color**  lets you select a mask color to display in all areas where two or more active channels are overlapping. This allows you to check if trapping is done correctly.


Click the  tool on or off to have the overprint color highlight on or off.

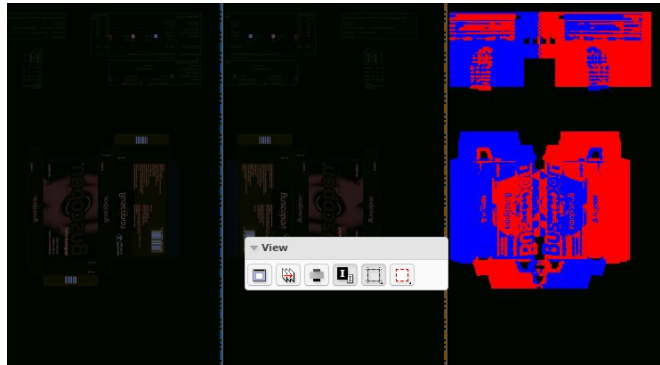





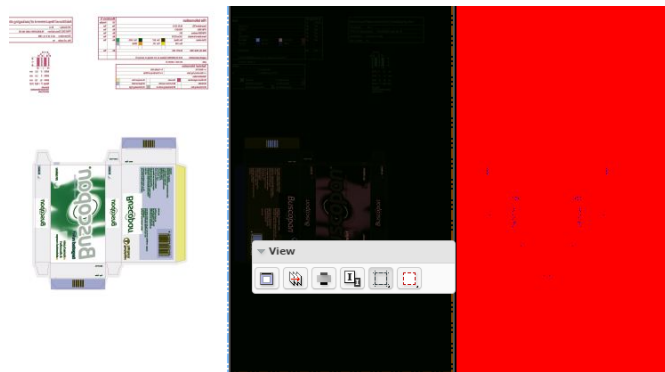
**Note:** Click **Ctrl+H** to switch between No Overprint display and Overprint display with the last selected color

**Invert View**

Use the **Invert View**  option to invert the image or images being viewed. While comparing, if you enable **Invert View** option, both the images will be inverted.




*The orientation and alignment tools* in the **Document Select** widget has **Invert Reference Image**  option. When this is enabled, the reference image will be inverted.

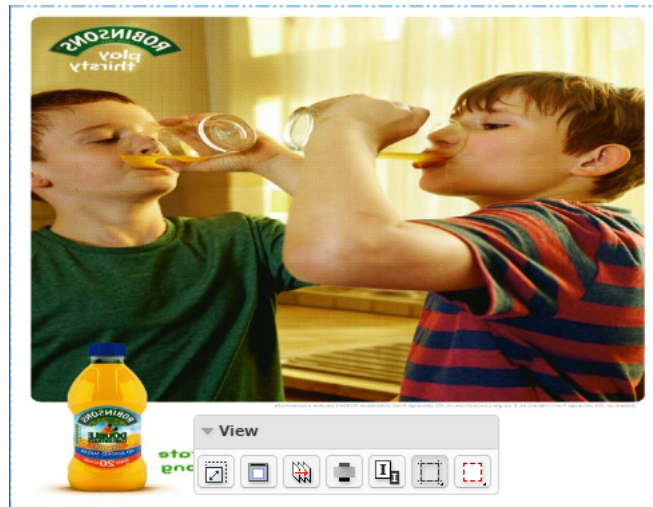


**Note:** If you enable the **Invert View** option in the View widget after inverting the reference image, your reference image will be displayed in the original state.

**Show or Hide Margins (Trimbox)**

The **Show/Hide Margins(Trim Box)**  option allows you to toggle the margin (trim box) lines on or off. While viewing an image with trim box information, this option will display the trim box as colored margin lines. If there is no trim box, the margin lines will follow the image outline (media box).







Right-click on  for options:

- **Show margins on current page**
- **Show margins on both pages in reader spread mode**
- **Set margin (trim box) color** sets the margin color for the current image while comparing two images.
- **Set reference margin (trim box) color** sets the margin color for the reference image while comparing two images.
- **Set current and reference margin color** sets the margin color for both images while comparing.
- **Reset margin colors** reverts to the viewers default margin color settings.

### Clip Document to Margin


The **Clip Document to Margin (Trim Box)**  option limits the content to the trim box (margin).

Right-click on  to get more options:

- **Clip Document to margin (trim box) in reader spread mode only** prevents overlapping page margins with image content in **reader spread** view mode. This option is useful while viewing multi-page documents.
- **Clip Document to margin (trim box)** clears the content outside the trim box. This is the same as a simple click on the **Clip document to margin**  button.

### Compensate Distortion and Scaling

Distortion is a technique used to pre-compensate graphics which will be printed with a non-uniform printing technology. Distortion is typically done during the RIP'ping process. In some workflows scaling is used in place of distortion to pre-compensate for distortion in printing process.

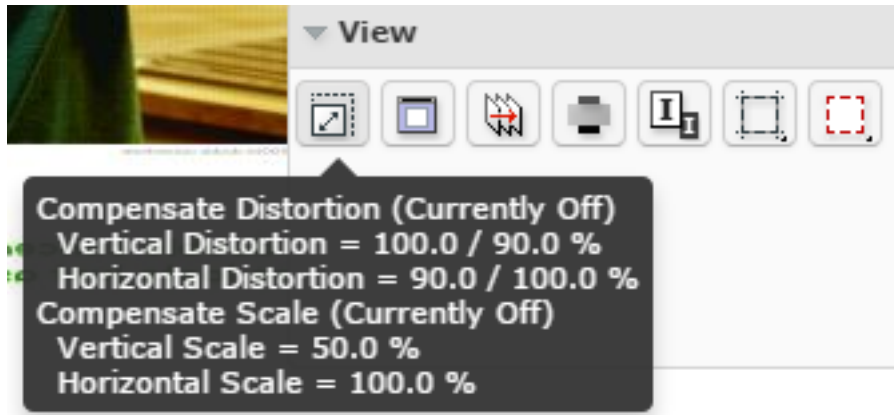
The **Compensate Distortion**  tool allows to compensate both distortion and scaling.

You can use this tool while comparing files with and without distortion or with different distortion values.



**Note:** This tool is available in the **View** widget only when the active or reference file has a distortion and/or scale.

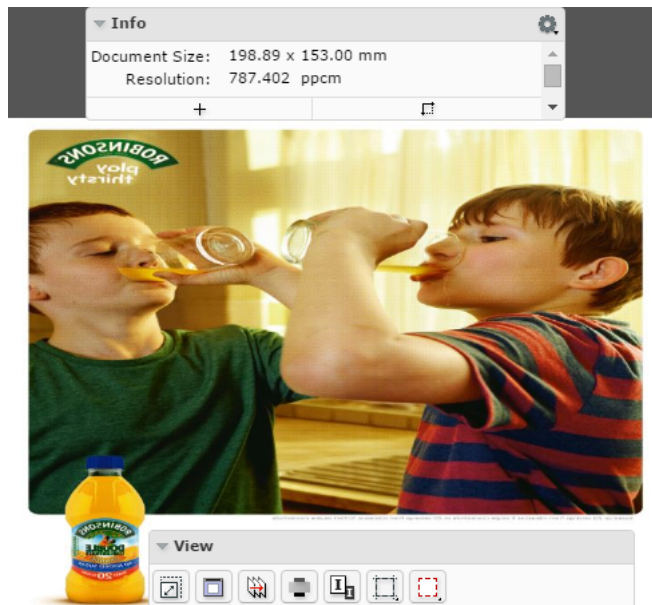
Hover on the tool to see the current distortion and scale values for the documents.



Use this tool to compensate:

- the distortion of the active and reference document when the documents only have distortion
- the scale if the active documents only have scaling
- both the distortion and scale of the documents if the active documents have both.

To activate the tool, click on the **Compensate Distortion** tool.



You can:

- **Compensate distortion only**

The screenshot displays a software interface for image editing. At the top, there is a photograph of two children drinking from glasses. Below the photo is a toolbar with various icons. A tooltip is active over the 'Compensate Scale' option, showing the following settings:

- Compensate Distortion (Currently On)
- Vertical Distortion = 100.0 %
- Horizontal Distortion = 90.0 %
- Compensate Scale (Currently Off)
- Vertical Scale = 50.0 %
- Horizontal Scale = 100.0 %

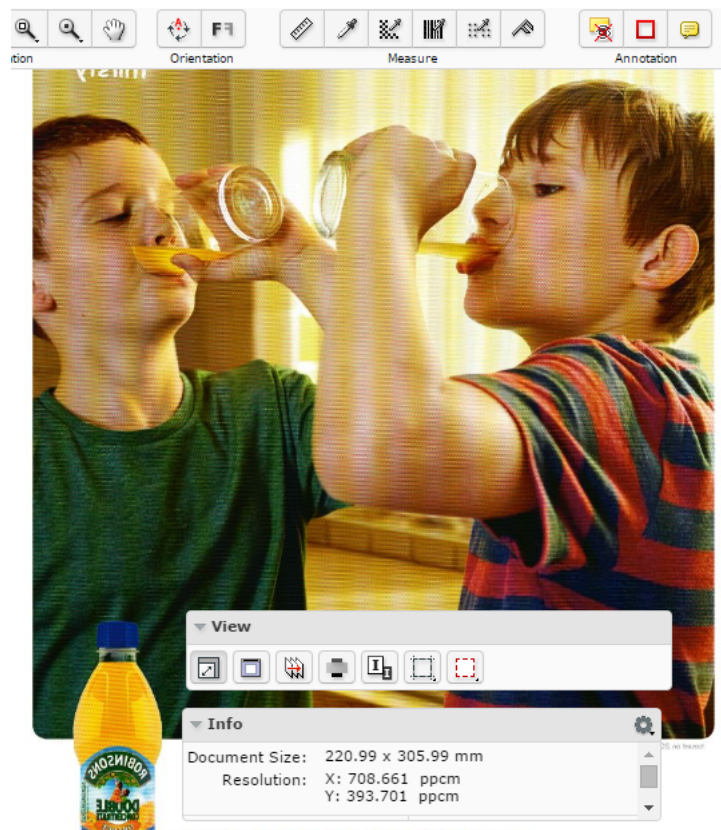
To the right of the toolbar is an 'Info' panel with the following details:

- Document Size: 220.99 x 153.00 mm
- Resolution: X: 708.661 ppcm, Y: 787.402 ppcm

- **Compensate scale only**



- **Compensate both distortion and scale**



You can activate or deactivate one of these options by clicking on that option.

After the compensation of distortion or scale or both:

- the tool tip displays the updated distortion and scale information.
- the [Info](#) widget displays the updated resolution and size.

## Attributes

If the document in the Viewer has an **Attribute Category** with a Viewer specific View, you will see the **Attributes** widget in the Viewer.



**Note:** If the document does not have any **attribute category** or an attribute category with Viewer optimized view, you will not see this widget.

When you have multiple Views, they are listed alphabetically and the first applicable view is enabled by default. You can:

- **Save Attributes**  from this widget.




**Note:** Only the users with **Project / Folder** level **Change Properties** permissions can change and save attributes from the [attributes](#) widget.

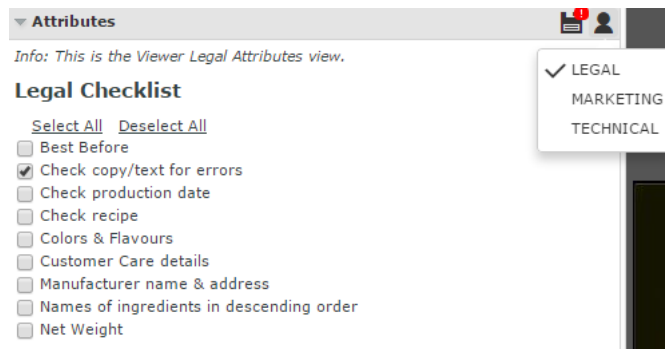
If the user does not have permissions to edit the attributes, the editing and saving is disabled in the widget



Your unsaved changes will be notified with a **Save attributes**  warning. Click this to **Save**. When the data is saved, you will see a notification.

- **Switch View**  when you are a member of multiple Roles and/or Groups with dedicated Viewer views. Refer this [table](#).

Save your attribute changes before switching to another View. You will be warned if you try to switch views without saving your changes.





## Channels

The **Channels** panel shows the file's channels and offers separation viewing possibilities.



## Viewing Separations


Click the **View channels in separate windows** button  to switch to a tiled view of the individual separations. The separations will be visible in the same order as in the channel list.


The **composite** view will always be shown as the first view followed by the visible channels in the displayed order. Right-click  to choose from :

- **Automatic tiling**
- **Horizontal tiling**
- **Vertical tiling**

### Viewing and Hiding Channels

Channels Widget displays the channel list in the printing sequence. The first in the list is a channel **All**. The list displays:

- activated channel  button
  - channel swatch indicating the color of the channel. In the case of **All**, swatch box will be white.
  - the channel name
- for each channel.


Use  button next to the channel name to hide it.



**Note:**

By default all channels are enabled.

### Viewing a single Channel

Right-click on the eye  button of a particular channel to view it as a single channel. When all the channels are displayed, clicking on **All** will show only the first channel.



**Tip:**

Deselect the selected channel to select the next one. This allows stepping through the channels one by one

From single channel viewing, click **All** to view all the channels.



**Tip:**

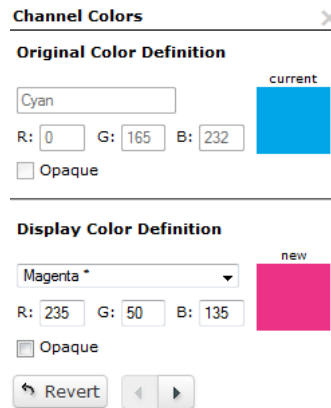
<b><u>Alt + 1, Alt + 2 ... , Alt + 9</u></b>	To select a particular channel in the sequence (from channel 1 to channel 9)
<b><u>Ctrl + Alt + 0, Ctrl + Alt + 1... Ctrl + Alt + 9</u></b>	To select a particular channel in the sequence (from channel 10 to channel 19)
<b><u>Alt + N</u></b>	To view a single channel.  Use this to view the first channel when multiple channels are displayed. Also use this to step to the next channel while viewing a single channel.
<b><u>Alt + A</u></b>	To view all channels.

### Editing the Channel Color in the Viewer

Click the color swatch next to the channel name to open the **Channel Colors** window. You can redefine the channel colors in the **Viewer**.

**Original color definition:** This section displays the name, the RGB values, the opacity and the color swatch of the original channel color.

You can redefine all these parameters in **Display color definition**.



**Display color definition:** This section allows you to edit the color. You can choose a new color from the drop-down, edit the RGB values and make the color **opaque**. The color swatch will display the new channel color.

The **Revert** button resets the color definition back to the original.

The left and right arrows let you to step through all the channels from within the dialog.



**Note:** Editing color definitions in the viewer does not change the actual image file.

### Viewing a Channel Opaque

Click on the **Show Single Channel as Black** button to make the selected separation/channel opaque.



**Note:** This setting is remembered the next time you open the Viewer.

Right-click to get the options:

- **show single channel in channel color**

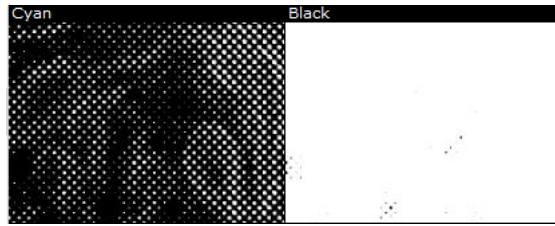
In this setting, you see the separation in its original color.



- **show single channel as black**

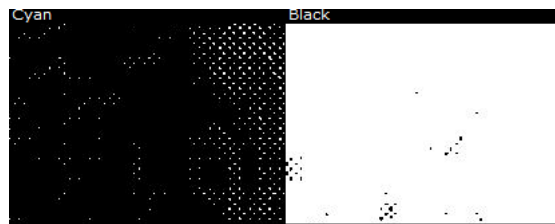
You can view single channels in black instead of its defined display color.





- **show single channel as black with show all effect :**

This eases the detection of areas with small dots by using black rather than a grey value for a display pixel that represents a partially covered area in the channel.



### Changing the Channel Order

Select the channel you want to move and click either **Shift the active channel up** ▲ or **Shift the active channel down** ▼ arrow. You may also drag a channel to a different position to change the order.

Moving the channels down will put them later in the printing sequence. This would cover the other colors printed before.



**Note:** This only changes the order in the Viewer and does not influence the actual printing sequence.

### Reverting the Changes

**Reset channel order and color definitions** button  will undo all display color edits by default. Right-click to specify :

- **Reset channel order only**
- **Reset color definitions only**
- **Reset all channel information**

### CAD

The **CAD** panel will have options depending on the file you opened in the Viewer.

#### While Viewing CAD files and Manufacturing Data

**CAD** panel contains a list of layers and classes. You can select the parts of the CAD data to be displayed in the view. This panel is only available if the viewed document contains CAD data.



When you open a CAD document in the Viewer, this panel displays:

- **Layers** list:

Here you can turn each CAD layer off so that it is hidden from the view. Only layers present in the CAD data are shown in this list.

- **Classes** list:

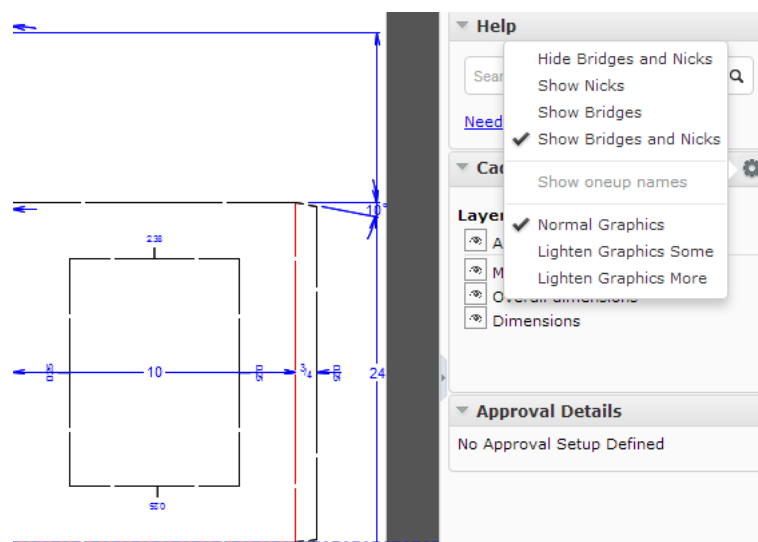
Manufacturing data usually contains a number of one-up designs consisting of a number of layers. These layers belong to a layer class. In the **Classes** list, you can turn off the layer classes.

- Click **All Layers** / **All Classes** to view or hide all data at once.
- Use the eye button to select the layers or classes in view.
- Right-click on the eye next to a layer or class to view just that one. All other layers / classes will be hidden from the view.



**Note:** The order of these layers and classes is defined in the CAD file.

### CAD Options






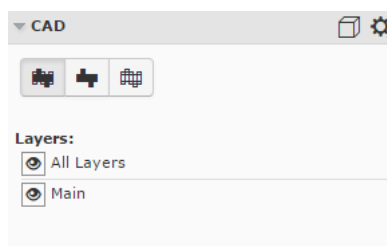
You can choose to view or hide Nicks and Bridges in the CAD file :

- **Hide Bridges and Nicks** or **Show Bridges and Nicks**
- **Show Nicks**  
Enable this to view Nicks in the display. You can also see the size of the nicks
- **Show Bridges**  
With this option, you can view the bridge-gaps.
- **Show one-up names**  
While viewing manufacturing data, you can see the names of the One-ups using this option. This option is turned off by default. This button is disabled when displaying a single design file.

**While viewing CAD linked with Graphics**

When a Graphics file with a reference CAD file is opened, the CAD line work is shown on top of the graphics file in the view. You have also options in the **CAD** panel to:

- **View both Graphics and CAD data** 
- **View Graphics only** 
- **View CAD data only** 



In CAD options, you can also set various degrees of dimming the graphics data to make the CAD data more visible:

- **Normal Graphics**
- **Lighten Graphics some**
- **Lighten Graphics more**

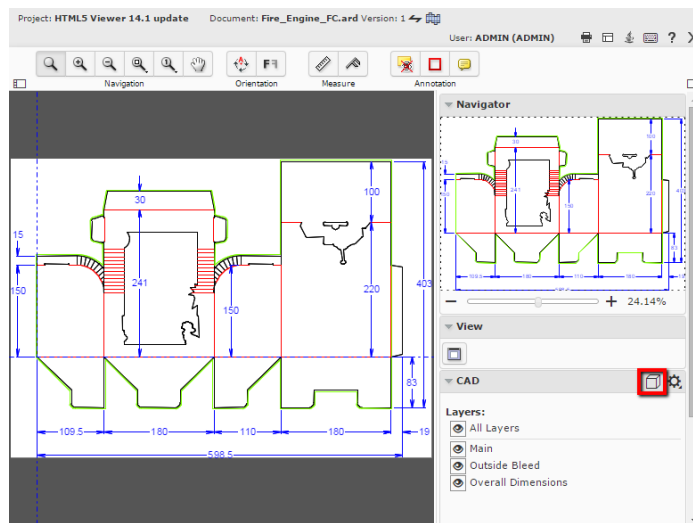


**Note:** When you re-open the viewer, CAD line work will be displayed on top of the graphics file. The modes in the CAD widget are not persistent.


**While viewing CAD in 3D**

While viewing a CAD design file (or a [graphic file with CAD reference](#) ), the CAD widget will have an **Open 3D View**  button.

Click  to open the file in the [HTML5 Collada Viewer](#). The 3D Viewer will open up in the [3D View](#) widget.




**Note:**

Once you have opened the file in 3D, the **Open 3D View**  button is added to the top tool panel.

**Help**

You can search for information in the **Search Knowledge Base** panel from within the Viewer window.




**Tip:** To access online help, use the keyboard shortcut **F1** or click .



**Annotating in the Viewer**








You can use the Viewer *annotation tools* to add annotations or comments to the Viewed image.


To add an annotation, Click on either the  *Add Annotation* on page 686 button or the  *Note Annotation* on page 690 button.

Click the  to get a list of additional annotation options. If you select a different annotation type, this button will change to the selected annotation type.

**Add Annotation**

- Click the  **Add Annotation** button.  
This opens a sub-menu of different annotation tool options. You can use these with a click-drag-release action:
  - **Rectangle Annotation Tool** : Use this to select a rectangular area where you can annotate.

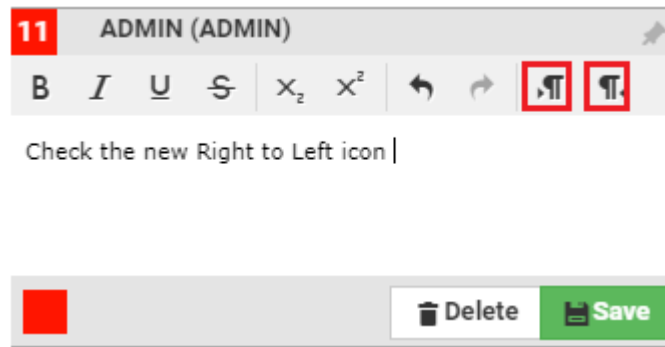
- **Oval Annotation Tool** : Use this to select an oval area within the image.
- **Freehand Annotation Tool** : Use this to make a freehand marking within the image.
- **Line Annotation Tool** : Use this to make a line marking on the image.
- **Arrow Annotation tool** : Use this to create an arrow marking on the image. The arrow head will be at the place where the mouse is released.
- **Highlight Annotation Tool** : Use this to select an area and highlight it in transparent yellow overprint.
- **New Global Rectangle** : Click on this to create a rectangle annotation surrounding the entire image without the dragging action. You may create multiple global rectangles.  
You can also re size this global rectangle.
- **Change default annotation line color...** 

When you click this color block, a window opens from which you can select a new color. This new preference is saved for all future annotations.
- **Reset default line color...** 

When you reset the color, a message asks if you want to update all the annotations with this color.
- From the [sub-menu](#), select the type of annotation.  
The Viewer remembers the selected tool until another tool is selected.
- Optionally, change the color of the annotation line. Otherwise, the default color (red) will be used.  
You can change the annotation line color from the [annotation window](#) as well.
- Click, drag and release within the image.  
You can type and format your annotation in the [Annotation Window](#) on page 687. You may also **Change Color** of the annotation.
- Enter your comment inside the annotation window and save. Read also [Annotation Window](#) on page 687.

### **Annotation Window**

While creating an annotation, an annotation window appears where you can add comments.



You can emphasize parts of the text using the formatting options. You may also undo and redo any changes you made in the text.

You can also change the direction of the text based on the language used for annotations. For example, you can use right to left or right to left buttons when working with languages like Arabic or Hebrew.

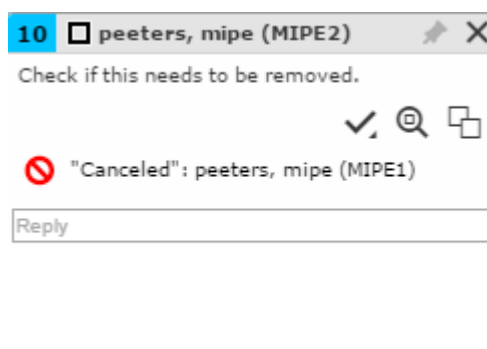


**Tip:** You can *move* the window to move the annotation to a new position.

**Annotation Pop-up**



If you select an existing annotation, the corresponding annotation pop-up opens. The pop-up contains :


- the *type of annotation*
- the annotation sequence number
- the annotator's name
- the annotation text
- the list of replies
- the list of review states

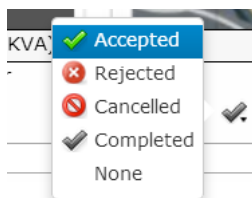


In the annotation pop-up you can:



- **Pin** the annotation pop-up.

By default, the annotation pop-ups are unpinned. Use the  **Pin** icon to pin the annotation pop-up to the location. To unpin, click on the **Unpin**  button. The setting you choose will be remembered.

- **Close** the annotation.
- **Set the review state**  of the annotation  
Choose the review state from the sub-menu.



The annotation list panel will display the new review state including the name of the reviewer. Save your changes after setting the review state.

- **Zoom to annotation** 
- do more actions via **Actions Menu** 
  - **Edit annotation**
  - **Delete the annotation**  
You can only delete comments that you have authored. All the replies to the deleted comments will also be deleted, irrespective of the author.
  - **Duplicate the annotation**  
Use this to make a variation (e.g. correction) of an annotation made by another user.
  - **Save the annotation**



**Note:** Only the original author can edit, delete or save.

- **Reply.** Click on the **Reply** field to get a rich text editor and type in your reply. You can either **Save** or **Cancel** the typed reply.

These replies are visible in the annotation window as well as in the [Annotation List](#).



**Tip:** Only two of the latest replies are visible in the window. Click **Show x more replies** to view the rest of the replies. To view less replies, click on the **Show less replies** button.




**Note:**



In the **Show only selected annotation** setting, the annotation pop-ups of the selected ones are shown.

When this setting is turned off, select **Show only selected annotation pop-up** to view the selected one's pop-up and all other annotation markings. This setting overrules the **Pinning**.

Read more in [Annotation Options](#) on page 693.

## Note Annotation

You can create a text annotation at any specific point on the image using the  **Note Annotation** tool.

- Select the  Note annotation tool  
You can also set the color using :
  - **Change Default Note Annotation Color.** The default is yellow.  
When you click this color block, a window opens from which you can select a new color. This new preference is saved for all future note annotations.
  - **Reset Default Note Annotation Color** 
- Click on the point on the image where you want the note.  
The [Annotation Window](#) on page 687 will appear where you can enter your note.

The annotation will be marked by a small note icon in the image.



**Note:** When you select a note annotation, it will be displayed in inverted colors within the view.

## Editing Annotations

You can edit or move the annotations in the Viewer.

- You can select your [annotations](#) by:
  - grabbing the annotation shape. When you hover near an annotation shape, the mouse pointer changes to a select arrow.
  - selecting it in the [Annotation List](#) on page 664. T



**Note:**

When selected,

- the annotation is highlighted in the annotation list with a yellow background.
- the annotation shape border thickness becomes double.
- the annotation shape displays handles to enable resizing.
- the [Note Annotation](#) on page 690 color is inverted in the view area.
- a rectangle, line, arrow, oval and highlight annotations display **anchor points**.

- You can drag the annotation using the mouse.
  - You can move a [Note Annotation](#) on page 690 or a Rectangle annotation by dragging it. When you hover near a note annotation, the mouse pointer changes to a select arrow.
  - To resize **rectangle annotations**, click the anchor point and drag either one of the four border lines. You can also grab one of the four corners and resize with the help of a resize cursor. To move a rectangle annotation, click and drag it to the new location.





**Note:** Highlight annotations can be modified in the same way as Rectangle annotations.

- To change an **oval annotation** shape, use any of the anchor points. Click and drag to move the annotation.
- Hold and drag the end-points to modify **line annotations** or **arrow annotations**. You can also select and drag the line or arrow to another location.
- Select and drag **freehand annotations** to change its location within the image. However, the size and shape cannot be changed.
- You can use **More actions** > **Edit annotation** in the annotation window (or in the [Annotation List](#) on page 664) to edit the annotation or reply text.



**Note:** This is only possible if you are the author of the annotation/reply.

After editing, you can either **Save** or **Cancel** the text changes.

### Linking Annotations


You can add multiple annotation areas to a single annotation note.

The linked annotations share the same text, sequence number, replies and review state. This helps you to draw multiple areas to one single annotation.

1. Select the annotation to be linked with the new annotation shape.
2. Click on **Add Annotation** and choose the annotation shape.
3. Create the new annotation holding the **Shift** key.  
The new annotation is linked to the selected annotation. The new annotation will share the same annotation pop-up. You can connect many locations in the same image to one annotation this way.

### Duplicate Annotations

You can duplicate annotations that were created by you or another user.

- To duplicate an annotation created by another user, click the Duplicate icon 
- To duplicate your own annotation, use **More actions** > **Duplicate Annotation** in the [Annotation Pop-up](#) on page 688

The annotation (and any linked annotations) from which you duplicated will be made into a new annotation thread with your name as the author and the current time. The text will be duplicated as well.

The color of the duplicated annotation will be the your default color for that annotation type.

### Delete Annotations

You can delete your own annotations using the **delete** key. You cannot delete replies to your annotations this way.

You can also delete annotations using **Annotation List** > **More actions** > **Delete Annotation**. From the [Annotation Pop-up](#) on page 688, use **More actions** > **Delete annotation**.

You have to confirm the deletion when you are deleting an annotation. However, if you are deleting replies, a confirmation is not required.

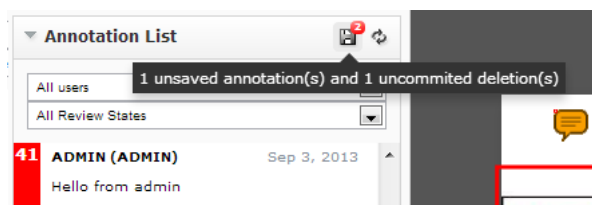
### Save Annotations

Your annotations and changes to annotations are not automatically saved to the server.

If you

- create a new annotation
- add/edit a reply
- move the pop-up
- pin/unpin pop-up
- change the annotation color
- set a review state
- edit text
- delete an annotation or a reply

the **Save** in the [Annotation List](#) on page 664 warns that there are unsaved annotations (or unsaved deletions). Save these annotations or changes by either clicking this icon, or by using the Save option in the [Annotation Pop-up](#) on page 688.



A message will indicate that the messages were saved successfully.

### Viewing Annotations

When you open an annotated document, the annotations will be visible on the document and the [Annotation List](#) on page 664 widget.

If you select an annotation either in the annotation list or in the viewport, this will be highlighted in the annotation list. You will also see the possible options concerning the annotation and its replies.

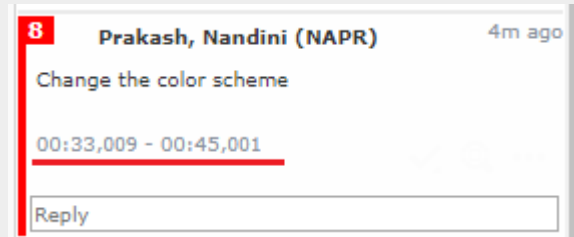


**Note:**

The time will be displayed as **5h ago**, yesterday, 2d ago... To see the exact time, hover over the displayed time.



**Note:** In video annotations, start time and end time of the annotation is displayed in the list.



**Tip:**

If you click and hold the left mouse button on an annotation in the annotation list, the annotation becomes highlighted in the view.

**Step Through Annotations**

You can step through all the listed annotations using the button. By default it will step through each annotation. After the last one, it will return to the first annotation again.



**Tip:** Hold the **Shift** and click to step backwards.

When you select an annotation, its comment window will appear.

You can set your preferred step through setting in [Annotation Options](#) on page 693. You can set your preference as any of the four options available.

- **Step by Thread:** This is the default mode. Will step through each annotation, but not through the replies to the annotations.
- **Step by Decreasing Date:** This mode will step through all annotation comments and replies sorted according to their modification dates.
- **Step by Thread - Fit View:** Same as "by thread", but will zoom the view to fit the selected annotation.
- **Step by Area/Position - Fit View:** Will step through all positions/areas of linked annotation and zoom the view to fit the selected annotation part.

**Annotation Options**

**Step through Options**

You may choose to step through the annotation in any of the following ways.

- **Step by Thread:** This is the default mode. Will step through each annotation, but not through the replies to the annotations.
- **Step by Decreasing Date:** This mode will step through all annotation comments and replies sorted according to their modification dates.
- **Step by Thread - Fit View:** Same as "by thread", but will zoom the view to fit the selected annotation.
- **Step by Area/Position - Fit View:** Will step through all positions/areas of linked annotation and zoom the view to fit the selected annotation part.

### Show only Annotations

Use these two options to set the visibility of annotation and annotation pop-ups in the view. This helps in simplifying the view by displaying only targeted annotations.

- **Show only selected annotation:** Only the selected annotation is shown in the View and the pop-up appears when the annotation is selected.

In this setting you will see a warning.

Warning! Only the selected annotations is shown.

- **Show Only Selected annotation pop-up**

You can choose this option when the **Show only selected annotation** is unchecked.. All the annotations will be in the View, but only the selected pop-up will be present in the view.



**Note:** This setting overrules the *Pinning*.

- A warning message will indicate your current setting.

Warning! Only the pop-up of the selected annotation is shown.

### Always show Annotation pop-ups

- Enable **Always Show Annotation Pop-ups** the *Annotation List* on page 664 settings. This setting is persistent and will show the pop-ups when you reopen the Viewer.

When this setting is enabled, the **Close** button will not hide the pop-ups.

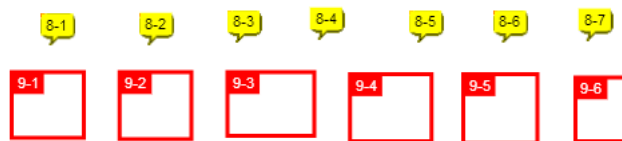
### Show or hide sequence label on the annotation

Use this option to show or hide the sequence number of annotations.

Unlinked annotations with sequence label:

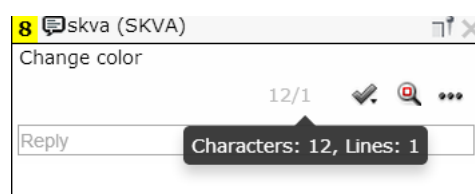


For linked annotations, the sequence number remains the same for all linked parts. A second number after a hyphen indicates different annotation areas.



### Show or hide character and line count

You can track the exact number of characters and lines in the annotation texts using this option. When you enable this, the character and line count will be shown in the [Annotation pop-up](#) and in [Annotation List](#) panel.



To turn this off, disable this setting in the **Annotation Options**.

### Fit View to the selected Annotation

Use this option to automatically fit the view and the zoom to the selected annotation. The Viewer will remember this setting and will return to this view when you reopen.

### Ordering the Annotations

You can order the annotations in the [Annotation List](#) in two ways:

- **Ordered by creation date:** All annotation comments and replies will be sorted according to their creation dates.
- **Ordered by modification date:** All annotation comments and replies are sorted according to their modification dates.

### Filter Annotations

In the [Annotation List](#) on page 664, you can :

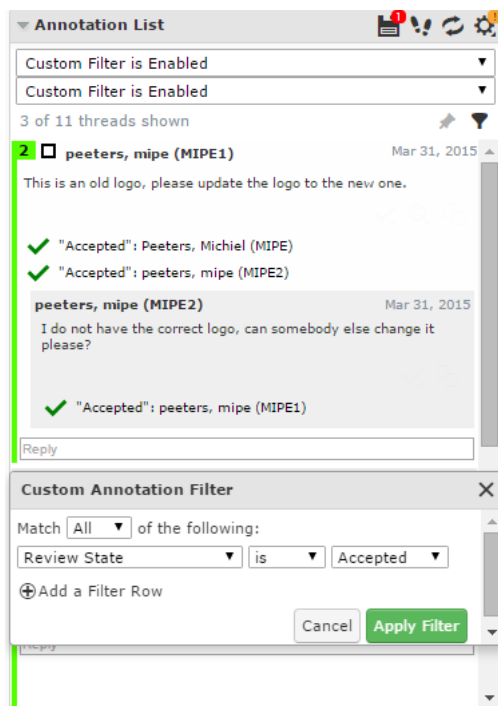
- filter annotations by user / author.  
When you select a single author, only the annotation threads and replies made by this author is displayed.
- filter annotations by its review state.
  - **Any Review State** will select all where there is a review state on the main annotation or any of the replies made.
  - **No Review State** will select all where there is no review state on the main annotation. If the review state is "None", it will not be shown.
  - **Accepted** will select all annotations and replies with Accepted review state.

- **Rejected** will select all annotation threads and replies where the review state is Rejected.
- **Cancelled** will select all annotation threads and replies where the review state is Cancelled.
- **Completed** will select all annotation threads and replies where the review state is Completed .
- **None** will select all annotation threads and replies where the review state is None.
- You also can filter using :
  - **All Except Accepted**
  - **All Except Rejected**
  - **All Except Cancelled**
  - **All Except Completed**
  - **All Except None**
- customize your own filter combining the author and review state. Read in [Custom Filters for Annotations](#) on page 696.

**Custom Filters for Annotations**

Use custom filtering to create advanced filters.



Click the **Custom Filter**  button to enable this option.



In the **custom annotation filter** dialog, you can combine the basic **Author** and **Review State** filters with a logical AND/OR operator.

Click **Apply Filter** to apply the changes and close the dialog. An active custom filter will show a message **Custom Filter Enabled** in the normal filter.

### Locking the custom filter

Click the pin  button to lock the custom filter. If you lock a custom filter , it stays active for other documents and consequent viewer sessions.



**Note:** You can always switch back to the basic filter by selecting a value from the drop down.

### Hide Annotations

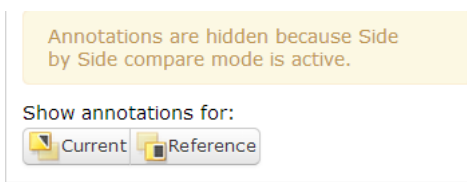
To hide annotations, you can click  **Hide annotations** in the toolbar. You can view them again by clicking on the same button.

### Viewing Annotations in Compare

The annotations are hidden by default when comparing two documents. Set **Show Annotations for:**

- **Current**
- **Reference**

to display annotations from either the current or the reference version.



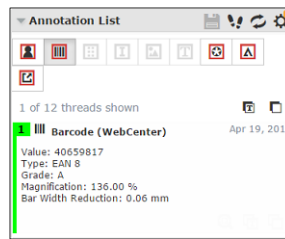
In **Blinking** compare mode, the annotations are hidden.








**Note:** You can edit the annotations from the current document, but not from the reference document.

### Viewing External Annotations




You can view annotation information in the Viewer even when the annotations are created by external tools such as Global Vision nodes of Automation Engine.



The Global Vision nodes create these five different types of annotations in an Automation Engine workflow:

-  **Barcode Annotations**
-  **Braille Annotations**
-  **Spell Check Annotations**
-  **Artwork Compare Annotations**
-  **Text Compare Annotations.**


The Viewer also supports:

-  Acrobat Annotations from Adobe Acrobat
-  Editor Annotations from the Esko editors
-  External Annotations coming from an unknown external tool.



**Note:** To view an external annotation in WebCenter Viewer, you have to ensure that the .xpdf files are uploaded along with the pdf document.

When a document has Global Vision annotations, a group of buttons is shown in the **Annotation Widget** of the Viewer. Select any of them to see their information.

There is also a button for  **User Annotations**. Learn more in [Viewing Annotations](#) on page 692.



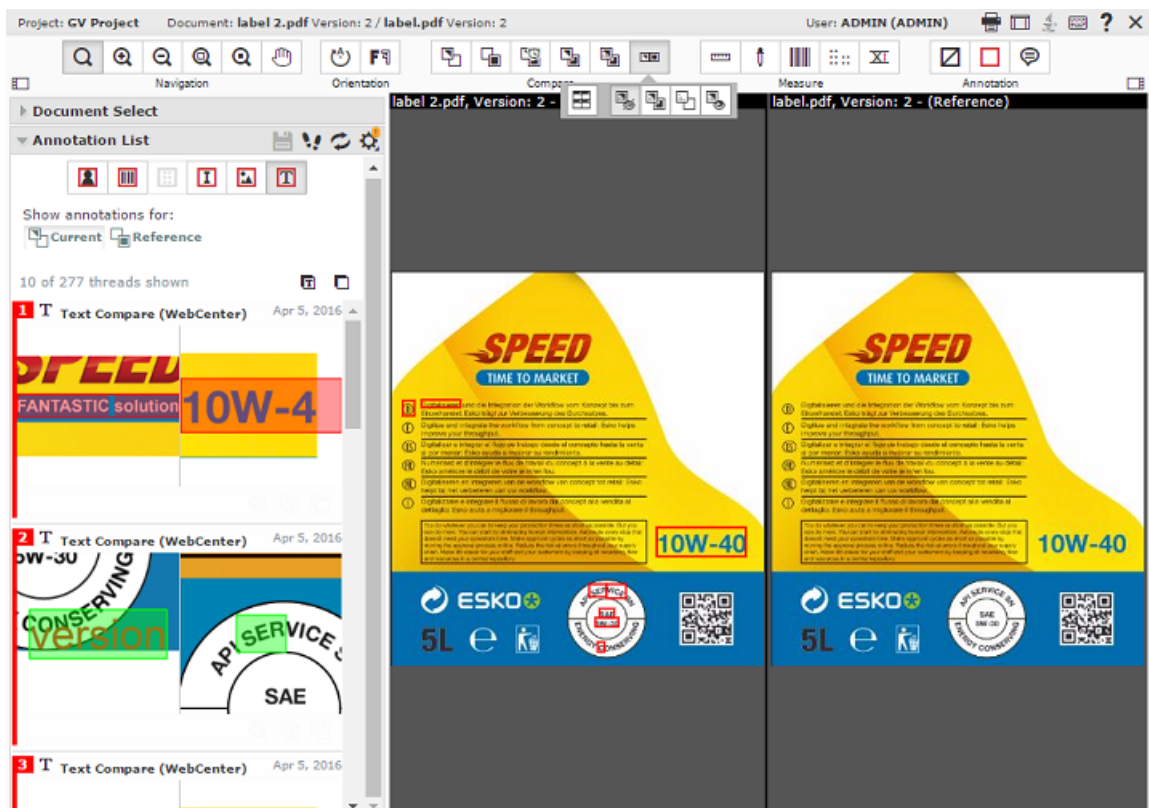
- Note:**
- Global Vision annotation buttons are only active when the document contains such annotations.
  - The other annotation buttons are only shown when the document contains such annotations.
  - All these externally created annotations are read-only. You cannot reply to them.
  - The **Filter** option is only displayed for user created annotations.

- You can view the **Braille**, **Barcode** and **Spelling** annotations on a single document checked in Automation Engine.





- **Artwork Compare** and **Text Compare** annotations are available when you have compared documents in Automation Engine.



**Creating User Annotations out of External Annotations**

**Creating User Annotations out of External Annotations**

You can copy and create new **User Annotations** out of the external annotations that a document contains. You can choose to create from any one or all the external annotations; with or without text.

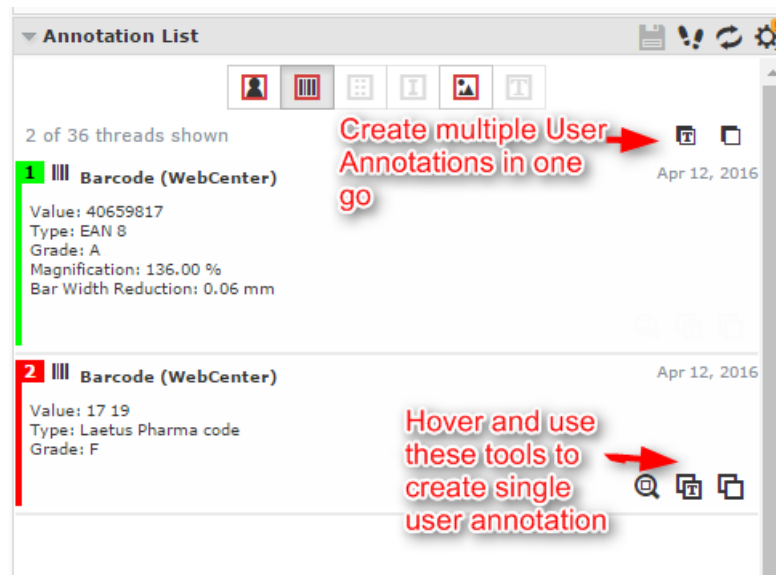


**Note:** You cannot create text annotations from Global Vision **Artwork Compare Annotations**.

To create such **User Annotations**:

- Click **Create a User Annotation Here** button on an external annotation thread. The annotation is created.
- Click **Create a Blank User Annotation Here** button on an external annotation thread. The annotation is copied, but without the text.
- Click **Create User Annotations From All Annotations** button located on the **Annotations Widget**, when filtering on a type of external annotation. This creates **User Annotation** out of all currently displayed annotations.
- Click **Create Blank User Annotations From All Annotations** on the **Annotation Widget**, when filtering on a type of external annotation. This creates **User Annotations** out of all currently displayed annotations but without the text.

The newly created annotations have the same properties and are shown in the **User Annotations** list.



**Annotating in a Multi-page / Page List Document**

While [Viewing Multi-Page Documents and Page Lists](#) on page 719, you can make annotations:

- on the active page
- on the adjacent page
- across both pages

When you draw annotations in the non-active page area, a message will ask you to confirm if you want to draw an annotation outside the current page. This warning does not appear when you draw an annotation across both pages.



**Note:** *Reader Spread View* on page 720 displays only the annotations from the currently active page.

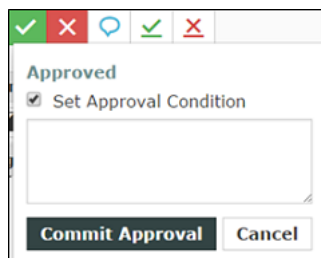
## Approval

You can evaluate and approve the documents in approval cycle from the Viewer using the [approval tools](#).

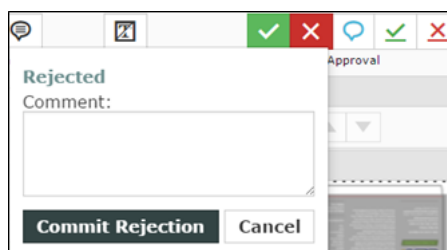
You can view the status of the approval in the viewer.

Clicking on any of the [approval tools](#) opens the approval pop-up.

- You may set a condition for your approval (if the approval cycle allows this). Select **Set approval condition** and type in your condition.



- You can give a reason for your rejection in the text box.



For example, if you reject a document because of a specific image detail, use [annotations](#) and add this as an approval comment.

- You may also just **Comment** without approving or rejecting. Then the status of the document is in Pending, until you approve or reject it later.
- **Commit** button to save your approval or rejection and comments to the server.

The approval status will be displayed in the top toolbar in the place of Approval tools. This status will be **Pending** if the **Approval Cycle** is still on-going.



**Remember:**

If you are in the Compare mode, you can only do the approval actions on the current document page.

Read also [Evaluate a Document in the Viewer](#) on page 702

**Evaluate a Document in the Viewer**

When you evaluate a graphic file or a page list (see [Document Types](#) on page 608 for information about the supported file types), you can first open it in the Viewer to look at it in detail. You can then approve, reject, or share a document for approving or viewing or add a stage or comment it directly from the Viewer.

1. Click the document's thumbnail or the button.

You can do this from:

- the **My Work** page (under **My Approval** if you have documents to approve or under **Approvals to Follow Up** if you are an **Approval Master**),
- the **Documents** tab in the project,
- the header of the Document Details page.
- the viewer

2. In the top toolbar, click:

- to approve the document,
- to reject it,
- to comment it,
- to forward approval request
- to force approve it if you are a Project Manager
- to force reject it (if you are a Project Manager).


Alternatively these options are also available in the **Approval Details** widget. This is available only if the user has **Change Approval** permissions.

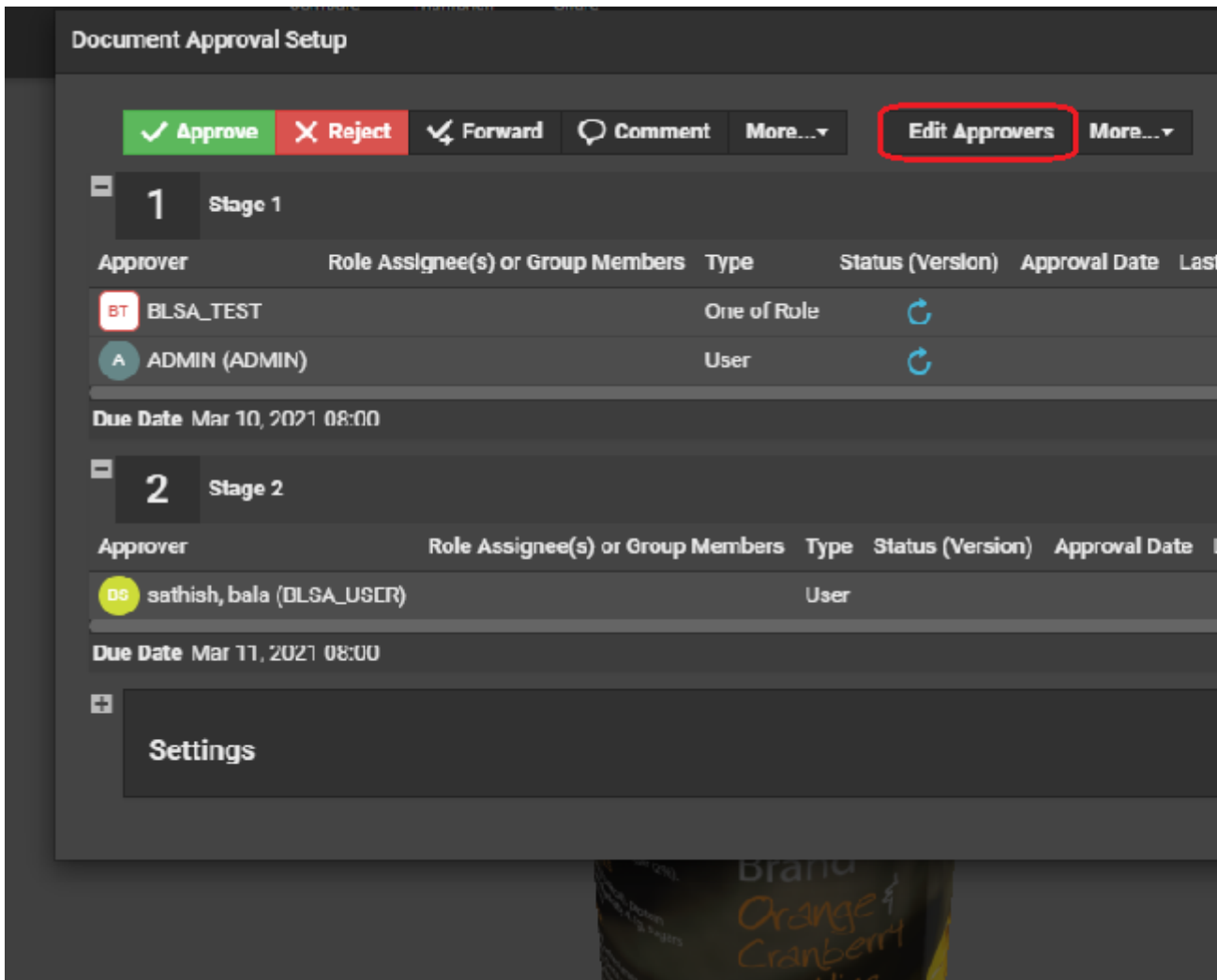


**Note:** You can view the status of the approval of the document in top tool bar.

3. In the pop-up that opens, do the following:

if you are...	you can...
<b>approving or force approving the document</b>	set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set Approval Condition</b> and type your condition in the box.
<b>rejecting or force rejecting the document</b>	type a reason for your rejection in the box.
<b>commenting the document</b>	type your comment in the box.

- If the user has **Change Approval** permissions, then the user can access the **Approval Setup** in the Approval details widget. Click  to open the **Document Approval Setup** pop-up window. User can perform all actions as specified in [Defining Approval Settings](#) on page 799
- It is possible to also Edit the approvers when the approval stage is in progress. When you click on the **Edit Document Approval Setup**, you can add a new approver or replace an existing approver based on the permission you have.



You can read about it in [detail](#).

- Enter your password, if your WebCenter server requires it. In case, the approval cycle is completed and the document is in Approved state, then the user cannot make any changes to the approval cycle from the viewer.
- Click the **Commit** button. A warning message is shown, if unsaved annotations are present, when you try to **Approve / Reject / Comment** on a document.

Once you have approved or rejected the document, you may not change its approval status later (only a **Pending** status allows future changes).

If you have entered an approval condition, a rejection reason or a comment, it will be shown in:

- the **Approval** tab of the Document Details page,
- the **Action History** tab of the Document Details page,
- the **Approval Details** panel in the Viewer.

To see all the documents you have recently evaluated, go to **My Work > My Recently Submitted Approvals**.



**Note:** If you cannot see **My Recently Submitted Approvals**, go to **My Work** and add it to your **My Work** page.

### Forwarding Approvals from WebCenter Viewer

An Approver can forward a document for approval to another user(s) from the viewer itself. **Forward** option is enabled based on the preferences set by the **Administrator** in the Security Preferences.

You can view the **Forward** button in the document and clicking it opens the **Forward Approval** window. You can select the User(s) from the list of approvers available or you can enter the email id (unregistered user) for which you wish to forward the document for approval.







### Option to Forward and remain as Approver or not

Approve user has an additional option to forward the document for Approval and remain as Approver or can forward the document and not remain as Approver.

### Compare Documents in the Viewer

You can compare two versions of a document or two documents in the Viewer. Use the different comparison modes to have a close look at the differences between the two files. First, [select the documents](#) to compare and then [align](#) them as required.

Once you have opened the documents to compare, there will be extra comparison modes buttons in the [Top Tool Panel](#) on page 644, [Channels](#) on page 680, **Orientation and Alignment** and **Annotation List**.

Click...	to...
<b>View Current Version</b> 	view the current version (the file in the first document selector). See: <a href="#">Show Current and Show Reference Modes</a> on page 714
<b>View Reference Version</b> 	view the reference version (the file you opened in the second document selector ). See: <a href="#">Show Current and Show Reference Modes</a> on page 714
<b>View Both - Blinking</b> 	keep switching from the first to the second file rapidly. Read details in <a href="#">View Both - Blinking</a> on page 714
<b>View both - Show on Top</b> 	view both files on top of each other.
<b>Difference Compare Mode</b> 	view both files on top of each other and highlight the differences in red. Read more in: <a href="#">Difference Compare Mode (View both highlight differences)</a> on page 715
<b>View both - side by side</b> 	view both files side by side.



**Note:** Comparison of 3D files are possible with all the options above except **Difference Compare Mode**. You can read more on 3D compare at [Comparing 3D documents](#) on page 718



**Note:** Comparison of the following file formats are possible:

- compare two digital film sets
- compare a digital film set with a PDF
- compare two RGB images



**Note:** This feature is not available for video files.

### Checklist for Approval in Viewer

You can set up validation fields which are to be filled mandatory, before the approval in the viewer. To set up validation, ensure that you have assigned an attribute category with a Viewer view of a document that contains required attributes.

In case, the validation fields are not filled, then you cannot approve the document, although comments may be updated.

- The validation criteria may be set based on the role in which the user is approving. For example, Artwork Designer Role may have to enter the answer for the question1 and 2, while Marketing Role has to answer for question 3 and 4.
- If there is only a Viewer View, then the view is validated regardless of role. If there is a specific view for the role, then that view is validated.

- If there are views for multiple roles that the user has, then the user approves on behalf of each of the role and all the role views are validated.
- If there is no view for the role the user is approving, but there are views for other roles the user could approve as, no validation is done.



**Note:** **Force Approve** and **Force Reject** options override filling the mandatory fields.

## Channel Matching in Compare Mode

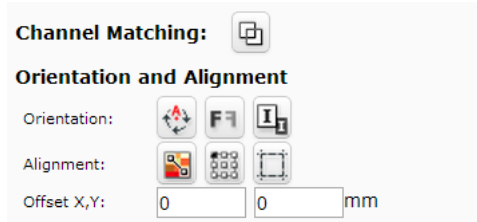
### Channel Matching in Compare

The **Channel Matching** influences the way differences in images are displayed while comparing them. For example :

- differences in display color of the same channel in the **current** and **reference** document
- differences in ink names. For example, a design ink name could be different from its production ink name.

When a **Compare To** (reference) document is selected, a message may prompt you to open the [Channel Matching Dialog](#) on page 706. This happens only when there are unmatched channels in one of the documents.

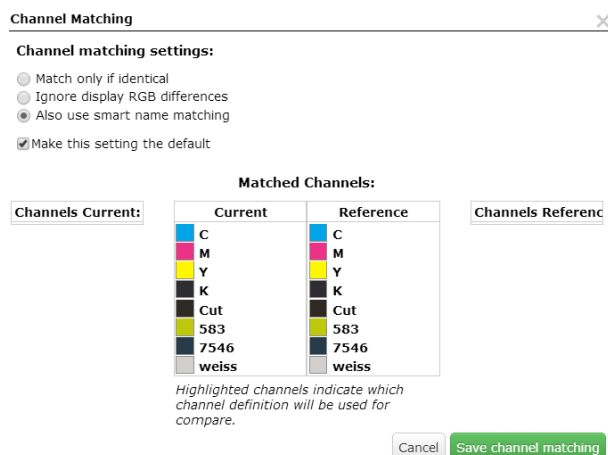
Alternatively, click on the **Channel Matching**  button to open the [Channel Matching Dialog](#) on page 706.



### Channel Matching Dialog

**channel matching** allows linking channels that have been changed in one of the documents/versions while comparing. Channel matching can be done automatically or manually.





There are three settings:

- **Match only if identical:** Select this to match only the channels with identical names and display colors.
- **Ignore display RGB differences:** Select this to match channels with matching names. This setting ignores the display color differences.
- **Also use smart name matching:** Select this to match the channels with related names. For example :
  - when the names differ in the letter case (Magenta - magenta)
  - when the names differ in color book specification ( 660 - Pantone 660 C and Cyan-Process Cyan )
  - when the names are known abbreviations. Example C - Cyan



**Note:** This setting ignores display color differences.



**Note:** The selection of a particular channel matching setting applies only to the current document. To make it default, enable the **Make this setting the default** check box.

It is possible to edit channel definitions of the current image to match those of the reference image (or vice versa). Read in [Manual Channel Matching in the Viewer](#) on page 707

**Manual Channel Matching in the Viewer**

The [Channel Matching Dialog](#) on page 706 displays four channel columns listing:

- the **Channels Current** and the **Channels Reference** columns display the unmatched channels.
  - the **Current** and the **Reference** columns represent the matched channels. Matched channels are displayed next to each other.
1. Drag the channel to be matched from the **Channels Current** column to the **Current**.
  2. Drag the corresponding channel from the **Channels Reference** column to the **Reference**.
  3. Click on the Channel from which the definition has to be copied. The clicked channel will be highlighted in the dialog. This indicates that the corresponding channel copies the definition of the highlighted one.

**Matched Channels:**

Channels Current:	
<span style="color: green;">■</span> anva 350 C	
<span style="color: green;">■</span> anva	
<span style="color: gray;">■</span> 877	
<span style="color: red;">■</span> Artios Crease	

Current	Reference
<span style="color: blue;">■</span> C	<span style="color: blue;">■</span> C
<span style="color: yellow;">■</span> Y	<span style="color: yellow;">■</span> Y
<span style="color: black;">■</span> K	<span style="color: black;">■</span> K
<span style="color: magenta;">■</span> M	<span style="color: magenta;">■</span> M
<span style="color: black;">■</span> Artios Cut	<span style="color: black;">■</span> Cut

Channels Reference:	
<span style="color: olive;">■</span> 583	
<span style="color: darkblue;">■</span> 7546	
<span style="color: gray;">■</span> weiss	

*Highlighted channels indicate which channel definition will be used for compare.*

4. Click **Save Channel Matching**. After saving, the modified channel is marked with an asterisk \* next to the name.

**Matched Channels:**

Current	Reference
<span style="color: blue;">■</span> C	<span style="color: blue;">■</span> C
<span style="color: yellow;">■</span> Y	<span style="color: yellow;">■</span> Y
<span style="color: black;">■</span> K	<span style="color: black;">■</span> K
<span style="color: magenta;">■</span> M	<span style="color: magenta;">■</span> M
<span style="color: black;">■</span> Cut *	<span style="color: black;">■</span> Cut

*Highlighted channels indicate which channel definition will be used for compare.*

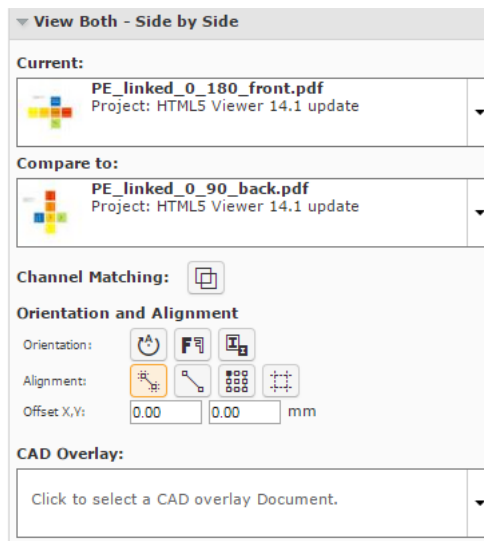


**Note:**




Channels displayed in bold in the matched columns cannot be unmatched. If you manually move the channels from the matched lists to the unmatched lists, the channel definitions are reset.

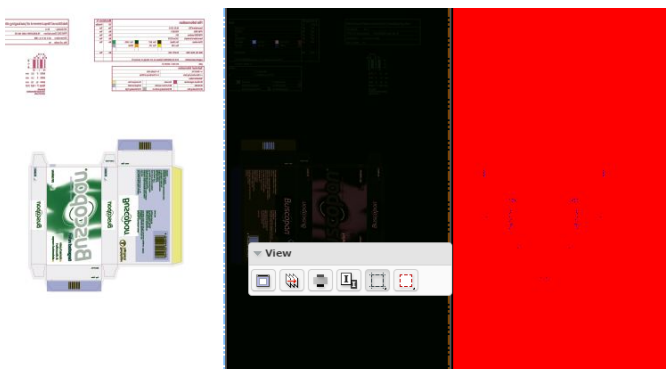
**Using Orientation Tools while Comparing**

Use the **Orientation** tools to rotate, mirror or invert the reference document / version relatively to the current document / version.



Use:

- **Rotate**  to rotate the reference document.
- **Mirror**  to mirror the reference document.
- **Invert**  to invert the reference document.



**Tip:** Use this when comparing a positive and negative version of the same document.

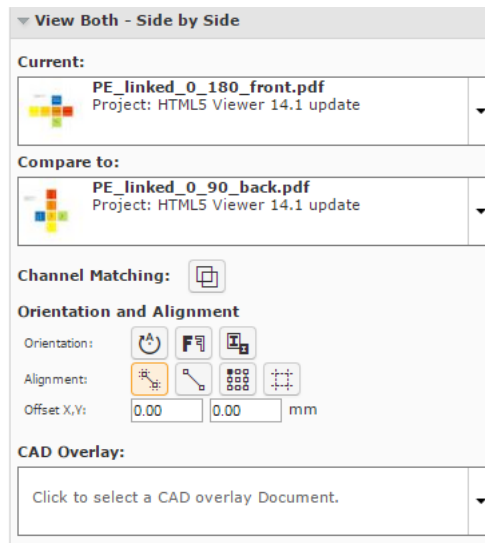


**Note:** The buttons indicate whether the rotation / mirroring / inverting of the reference document is currently on or off.

### Aligning Files

You will get Viewer tools to align files in the **document select** panel while:


- comparing two graphics / CAD files.
- viewing a graphics file and a linked CAD Overlay. Read in: [Aligning CAD overlay and Graphics](#) on page 728.



You can align the current and reference files during compare using:

- [auto-align](#)
- [anchor points](#)
- [corners, margins \(Trim-boxes\) or offset values.](#)

**Auto-aligning Files while Comparing (Graphics)**

**Auto Align**  aligns the currently visible view of the two compared images automatically.

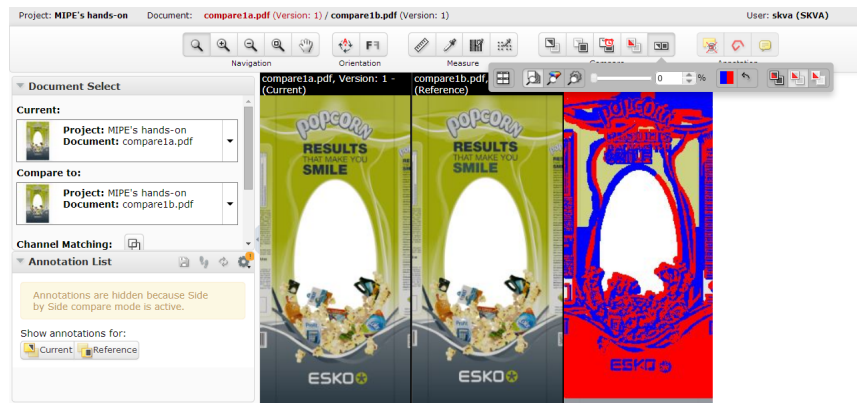



**Tip:** Using this tool along with the **zoom in** function is a quick way to align the current and reference images in the Viewer.


You can also use this to align the CAD overlay on the graphics correctly.

1. Select the files to compare from the **documents**.
2. Click **Actions > Compare in Viewer**.
3. Select the **Current** and **Reference** documents in the [Document Select](#) on page 660.

The viewer starts the last used Compare mode ( except the **View Reference Version** or **View Current Version** modes ) with those documents.



4. Select your preferred Compare mode, for example, **View both - side by side**  view.

5. Zoom-in to a specific area and use **Auto-align** .

Auto Align uses the currently visible view of the two compared images to attempt an automatic alignment.



**Note:** The **offset** values are filled in automatically.






**Tip:**


Using this tool repeatedly with one or more zoom-ins can be a very convenient and quick way to align two images.




**Using Anchor Points**

1. Select and load your documents to the Viewer.
2. Select the **Current** and **Reference** documents in the [Document Select](#) on page 660.  
 The viewer starts the last used Compare mode ( except the **View Reference Version** or **View Current Version** modes ) with those documents.  
 Your **document select** panel will have **Orientation and Alignment** tools when you select two documents to compare.
3. Select your preferred Compare mode, for example, **View both - side by side**  view.
4. Click on the **Anchor Point Alignment**  tool.  
 The Viewer will transform to the anchor point alignment mode. You can access the **navigation** and **orientation** tools in the top panel. You can also use the **Auto-align**  function in combination with the anchor points.




 **Note:** The active anchor can be recognized by the crosshair icon.

5. Select your anchor point in the reference document displayed in the middle.
  - click to select a point.
  - use the arrow keys to fine-tune your anchor points
  - you can also drag the selected point to another location.

 **Note:** Use zoom tool to help you in finding the anchor point.

6. Check the result on the right pane. Click **Align** to confirm.

 **Tip:** If you click **auto align** after selecting the anchor points, it will start auto-aligning by moving the reference .


The Viewer will return to its original state when you click **Align/Cancel**.

**Aligning Graphic Files Using Corner, Trim box or Offset**

You can use the **Alignment** tools to align two graphics files.


1.

You can align the files to compare using the **Choose corner for alignment of the reference** 

option. To specify the corner point for alignment, click  and select your reference corner from the alignment drop-down.



2.

Click on the **Use margins (trim boxes) for alignment**  option to align the images relative to the trim-boxes of the compared documents. When this option is not on, the alignment will be relative to the document boundaries.



**Note:** If the trim-box information is not included in the document XMP, the document boundary will be used for aligning files.

When you do a specific corner alignment after clicking this option, the trim box alignment will be remembered.

3. You can specify numbers in the **Offset** X and Y fields. This offset is added to the corner alignment.




**Note:**

If you are aligning two graphics files, the offset will be the distance between the **current** and the **reference** according to the graphics coordinate system (positive horizontal is set to the right and positive vertical is pointing downwards).

For CAD overlay and graphics, the offset is taken as the distance between the CAD overlay and the graphics page using the CAD coordinate system (positive vertical pointing downwards).

While aligning two CAD files, the offset is the distance between the **reference** and the **current** document page (in that order) according to the CAD coordinate system.

**Aligning CAD files**

- To open multiple CAD documents, select them and click **Actions > Compare in Viewer**. The documents will open in the **compare mode**. Read details in: [Compare Documents in the Viewer](#) on page 704
- Use the **Rotate Reference**  tool to rotate it with respect to the **current** document.
- **Mirror Reference Image** will flip your reference (from the centre of the view) with respect to the current document.
- Use the [anchor point](#) alignment tool to align two CAD files correctly.

a)

Click on the **Anchor Point Alignment**  tool.

The Viewer will transform to the anchor point alignment mode. You can access the **navigation** and **orientation** tools in the top panel.



**Note:** The active anchor can be recognized by the crosshair icon.

- b) Select the anchor points in the **current** and **reference** documents. Use the arrow keys to fine-tune your anchor points. You can also drag the selected point to a new location.
- c) Click **Align**.
- **Offset X,Y** fields allow you to enter precise offsets for accurate alignment.



**Note:**

If you are aligning two graphics files, the offset will be the distance between the **current** and the **reference** according to the graphics coordinate system (positive horizontal is set to the right and positive vertical is pointing downwards).

For CAD overlay and graphics, the offset is taken as the distance between the CAD overlay and the graphics page using the CAD coordinate system (positive vertical pointing downwards).

While aligning two CAD files, the offset is the distance between the **reference** and the **current** document page (in that order) according to the CAD coordinate system.

**Compare Modes**

**Show Current and Show Reference Modes**

If you click the **View Reference Version** or **View Current Version** button, the tools update their information accordingly. The annotations are also changed to the current document in view.

The [Approval Details](#) on page 666 will be updated as well. In the **View Reference** mode, you will still be able to perform the approval actions of the **current** document.

**View Both - Blinking**

In this mode, you will see the two selected document pages rapidly one after the other.

- All annotations will be hidden
- Approval details will be unavailable



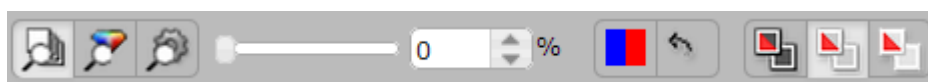
- If the channels are split in different views, in each view the documents will rapidly change.
- If measure tools are active, the information pop-up will be updated rapidly depending on the visible page.

**View Both on Top**

You can view the documents to be compared on top of each other in this mode. You will not see the difference view in this mode.

**Difference Compare Mode (View both highlight differences)**

In **Difference Compare Mode**, you can view a combination of the current and the reference channels in the same window. When you select this mode, you will see an additional tool bar.



**Selecting the Compare color space**

You can use compare color space tools to judge the nature of the differences between the compared documents.

- **Compare: Channels** - This is the default mode. Use this to compare Channels one by one. The added and subtracted content is displayed in highlight colors.
- **Compare: HSV** - This mode compares the HSV color of the two documents and you can see the relative differences in a graded color overlay. The common parts among the compared documents are shown in a neutral gray color.

The overlay color will be a grade of the selected "Subtracted" color with the strength depending of the magnitude of the difference. Use this to compare documents where the channels are not the same. For example, a CMYK document and a Pantone spot color document.

- **Compare: Automatic** - In this setting, Channels will be used as compare color space if the definition of all the visible channels is the same in the two compared documents. If this is not the case, HSV compare will be used.

**Change the difference threshold**

You can change the precision of difference detection using the slider tool. You can also enter a percentage [0-100%] value. If the threshold is higher than 0 is set, you will see a message warning about the hidden differences.



**Note:**

Your **difference threshold** will be saved for your next compare session.

**Change Difference highlight colors**

Depending on your documents to compare, you may want to change the highlight colors. You can do this by clicking on the color block tool and selecting your preferred colors.

By default,

- the added channels and objects on common channels are displayed in blue to highlight the differences. The left part of the color block button indicates this highlight color.

- the subtracted channels and deleted objects on common channels are displayed in red. The right part of the color block button indicates this.

You can:

- **Change added highlight color**
- **Change subtracted highlight color**
- **Change both highlight colors**

There is a button to reset the changed highlight colors back to red/blue.

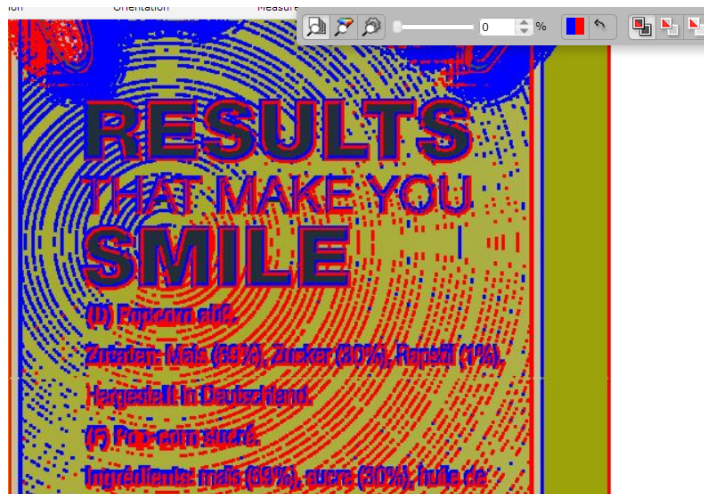
### Difference Compare Modes

You can select different compare modes for effective comparison of documents. These modes differ in how they display the unchanged parts in the compared documents. Select from:

- **View both (default)** 

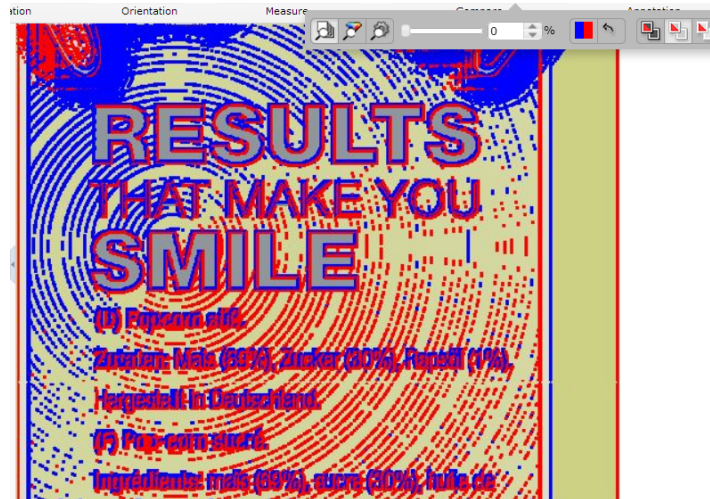
This mode displays the unchanged image parts as it is in its normal colors and changes in its highlight colors.

- **Channels** only present in the current version is indicated with a + after the channel name.
- **Channels** only present in the reference version is indicated with a - after the channel name.



- **View both - highlight difference** 

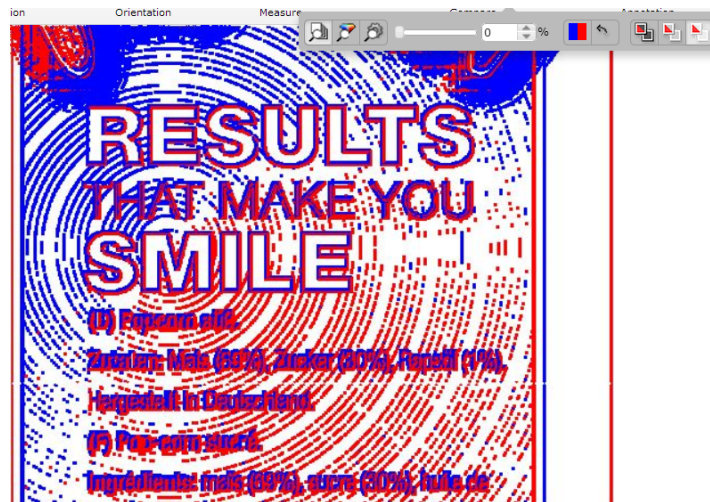
This mode hides the unchanged parts. Select this to view unchanged image parts with lightened colors. This way, you can spot the differences in a colorful image.



**View both - show difference**



The unchanged image parts are displayed in white. In this mode, you can see the differences in its highlight colors and the rest of the image in white. This way, you can spot even small changes easily.



**Note:** **View Both on Top** and **Difference Compare Mode** are not possible when comparing SVG files.

**Compare Modes for different file types**

Compare Modes	Graphics	SVG	3D
Current Document	Possible	Possible	Possible
Reference Document	Possible	Possible	Possible
Blinking	Possible	Possible	Possible
Side by Side	Possible	Possible	Possible

Compare Modes	Graphics	SVG	3D
View Both on Top	Possible	Not possible	Not possible
Difference Compare Mode	Possible	Not possible	Not possible

### Annotations in Compare Modes

By default, all annotations are hidden and you cannot make new annotations in compare modes. However, in the **annotation list**, you can specify the **Show annotations for:** as either **Current** or **Reference**. Select:

- **Current** to view and make annotations in the current document.
- **Reference** to view the annotations present in the reference document. You cannot draw new annotations in the reference document.

### Comparing 3D documents

You can compare the 3D view of two versions of the same document or reference to a 3D view of another document. When a 3D file is selected as the **Current** version, the Document Selector **Compare To** displays all the other files that have a 3D view to compare with.

Selecting one of the files as **Reference Version** will activate the side by side comparison of the 3D views.

Following compare modes are available for 3D documents

- **View Current Version**
- **View Reference Version**
- **View Both Blinking**
- **View Both Side by Side**

When a **Graphics file with 3D perspective** is compared with :

- **Another 3D Document**

This can be another 3D file or a graphics file with a 3D perspective. Selecting one of the reference versions in the difference selector activates the side by side comparison of the 3D views.

- **Graphics file with a 3D perspective**

If a graphics file with a 3D perspective is chosen as reference version, the default 2D compare mode is used.

When in a 2D compare mode, clicking the 3D button enables the 3D version of that compare mode.

When in a 3D compare mode, clicking the 2D button enables the 2D version of that compare mode and the Difference compare modes for 2D are available.

### Lock Images to Compare

When you compare the 3D perspectives in the viewer, you can lock the view of both the **Reference Document** or the **Current version** by enabling the Lock Movement tool.

One of the document is locked while you can rotate the other. The angle reset option synchronizes the view of reference 3D object with respect to the current 3D object.

### Update View in Real Time

This option is enabled by default and you can view the current and the reference document aligned with respect to the each other.

However, when the option is disabled, the viewer only synchronizes after the interaction has stopped.

### Compare SVG Documents

You can compare two different SVG files or versions of the same file with each other or a SVG with a graphic file. The supported compare modes are **Blinking Mode** and **Side-by-Side**.



**Note:** The **Channels** Widget is hidden when SVG documents are opened.

### External Comparison (QA) Tool in Viewer

WebCenter allows integration with third party external web QA (quality assurance) tools namely InformaT and TVT for additional comparison features. The connectivity to the external tools can be created by the Admin user in the **Assisted QA** tools menu option where the **Name** and **URL** of the tool must be entered along with tool specific information.

#### How to Access the QA Comparison Button(s) in the Viewer

When the graphic documents are compared in WebCenter Viewer, additional button(s) are enabled if any external tools are connected. On click of the button, the viewer is connected to the external QA tool in a new tab and the comparison is performed.

On completion of the comparison session in the external tool, the reports and annotations are stored back into the WebCenter.

#### Reports from the QA Tool

The report is automatically imported in the same WebCenter project as the compared artworks.

Reports names are same as the document along with a suffix string as defined by the Administrator during the configuration of the connection to the QA Tool.

#### Annotations from the External Tool

After the report is generated of the compared documents, the annotations made are imported back to the current document in WebCenter and the existing annotation in the document are overwritten.



**Note:** Annotations can be viewed, when the external QA tool is accessed from the viewer.

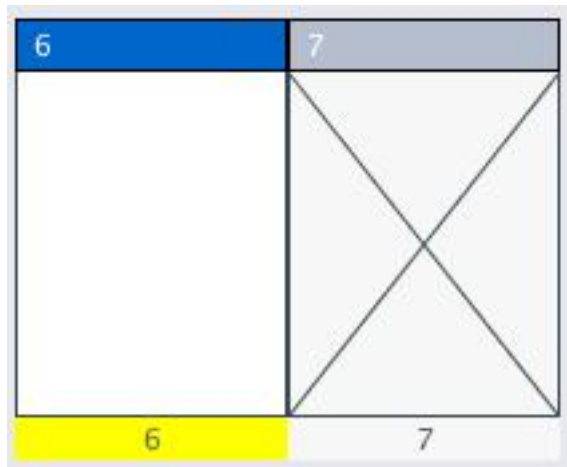
### Viewing Multi-Page Documents and Page Lists

The Viewer has a number of features that make working with Page List and Multi-page documents intuitive:

- [Reader Spread View](#)
- [Page List Widget](#)

When you open a Page List or Multi-page document, the Page List widget displays its pages as thumbnails. You can switch the main view to a specific page by clicking on the corresponding page thumbnail.

Special thumbnails are used for Blank and Empty (Non-available) and pages of a Page List. An empty page cannot be selected as the active page.




**Note:** Blank and Empty page thumbnails are only available for Page Lists.

You can see the page name and folio of each page below its thumbnail. A yellow color bar below the page thumbnail indicates the currently active page. The bar above the thumbnail contains the page number (index) and icons to indicate the page's approval state. In addition to the icon, a *color code* indicates the primary approval state.

Use the Viewer to *compare*, *annotate*, inspect and *approve* the pages.

### Reader Spread View

The Reader Spread view  allows you to see pairs of pages from a multi-page or page list in the Viewer. This enables you to visualize the document matching the appearance of the final document in print.



**Note:** Reader Spread View is not available in compare mode.

You can turn this on or off by clicking on the  button. You can use   arrows to navigate between reader spreads.

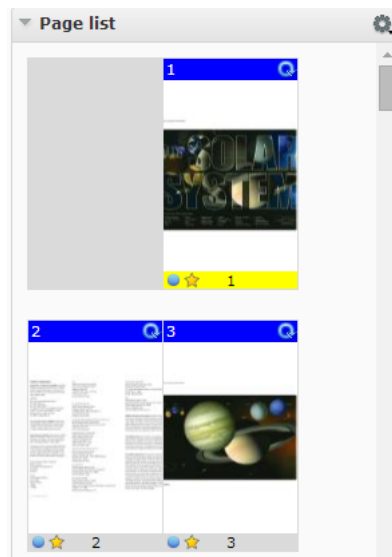
When one of the two pages is absent, the active page is displayed with an empty area next to it.



**Remember:** Although you can view two pages at the same time, there can only be one active page. You can make a page active by clicking on its thumbnail.

The pairs will be displayed according to its binding:

- Left edge binding: The first page and the odd numbered pages are displayed on the right. The even numbered pages will be on the left.



- Right edge binding: the first page and the odd numbered pages are displayed on the left. The even numbered pages are displayed on the right.



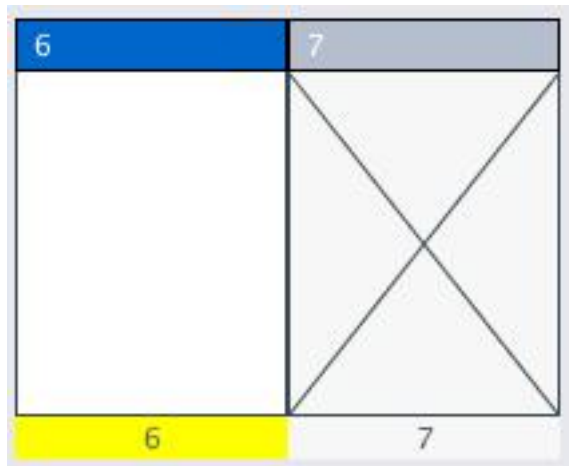
Read also [Marking Pages in a Page List](#) on page 725

### Comparing Multi-Page / Page Lists Document Pages

1. Load the Multi-page / Page List documents into the Viewer by selecting them and clicking **Actions > View and Annotate** or **Actions > Compare in Viewer**.

Special thumbnails are used for Blank and Empty (Non-available) and pages of a Page List. An empty page cannot be selected as the active page.





**Note:** Blank and Empty page thumbnails are only available for Page Lists.

2. Select specific pages in **Current** and **Compare To** document selectors.

The pages are grouped by document version. Use **Hide all pages** in the **Current** and **Compare To** document selectors to have the display aggregated.

A dialog opens up where you can set your comparison mode.

3. In this dialog, define how the pages of the active document are mapped to the reference pages. Click **OK**.

- **Current page only** : to map the current active page to the selected reference page. The other pages will follow page number mapping.
- **Current and following pages**: to map the current active page to the selected reference page. This mapping will be used for the next reference pages.



**Note:** If there are no following reference pages, the last one will be set as the **Compare To** page.

- **All pages**: to map all pages of the two documents. The previous **current** pages will be mapped to the respective reference pages.



**Note:** If there are no previous **reference** pages, the first one will be set as the **current** page.

Any changes in the active page will lead to a corresponding change in the reference page (as defined in the dialog). If you have not defined any comparison mode, the page numbers will be mapped.

4. You can use [the Compare mode](#) tools to compare the details of the pages.

### Approval in Page Lists

You can set up approval cycle on individual pages of a Page List. However, for multi-page documents, the approval cycle is only possible for the entire document. You will see the approval tools when the loaded document is in an approval cycle.





**Tip:** A color coded bar on the page thumbnails display the approval state of the document.

- Grey bar: no approval cycle
- Blue bar: pending approval
- Green bar: approved or force approved
- Red bar: rejected or force rejected

In addition, a blue circle at the bottom of the thumbnails informs you that you need to approve the document.






[Approval Details](#) on page 666 widget will display the approval information regarding the active page. The widget updates the information when you view a different page of a Page List. When an approval status is submitted, the approval status will be updated for all visible pages.

Read also [Evaluate a Page List in the Viewer](#) on page 723

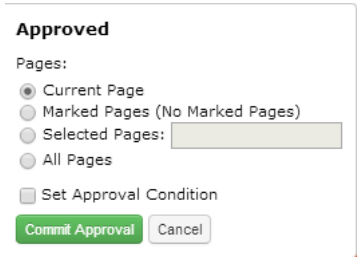
### Evaluate a Page List in the Viewer

1. Navigate to the Page List in a Document list, and click on its thumbnail image. The **Viewer** opens, displaying the Page List in the Page List widget.

2. In the Viewer tool bar, click:

-  to approve the document,
-  to reject it,
-  to comment on it,
-  to force approve it (if you are a Project Manager),
-  to force reject it (if you are a Project Manager).

3. In the pop-up that opens, choose to approve / reject / comment the :

Options	Description
<p><b>Current Page</b></p>	 <p>Select this option when you intend to approve only the active page.</p>
<p><b>Marked Pages</b></p>	

Options	Description
	<p><b>Approved</b></p> <p>Pages:</p> <ul style="list-style-type: none"> <li><input type="radio"/> Current Page</li> <li><input checked="" type="radio"/> Marked Pages (4, 7)</li> <li><input type="radio"/> Selected Pages: <input type="text"/></li> <li><input type="radio"/> All Pages</li> </ul> <p><input type="checkbox"/> Set Approval Condition</p> <p><input type="button" value="Commit Approval"/> <input type="button" value="Cancel"/></p> <p>You can <a href="#">mark pages</a> while evaluating to do approval actions in bulk.</p>
<p><b>Selected Pages</b></p>	<p>You can approve / reject the <b>selected pages</b> in one go by specifying them :</p> <ul style="list-style-type: none"> <li>• as a page range</li> <li>• or separated by commas</li> </ul> <p><input checked="" type="radio"/> Selected Pages: <input type="text" value="14,16,17,18-21"/></p>
<p><b>All Remaining Pages</b></p>	<p><b>Approved</b></p> <p>Pages:</p> <ul style="list-style-type: none"> <li><input type="radio"/> Marked Pages (No Marked Pages)</li> <li><input type="radio"/> Selected Pages: <input type="text"/></li> <li><input checked="" type="radio"/> All Remaining Pages</li> </ul> <p><input type="checkbox"/> Set Approval Condition</p> <p><input type="button" value="Commit Approval"/> <input type="button" value="Cancel"/></p> <p>If you are clicking on the Approval tools from an Approved /Rejected page, you will get an option to approve / reject all the remaining pages.</p>

a) Optionally:

if you are...	you can...
<p>approving or force approving the page(s)</p>	<p>set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set approval condition</b> and type your condition in the box.</p>
<p>rejecting or force rejecting the page(s)</p>	<p>type a reason for your rejection in the box.</p>
<p>commenting the page(s)</p>	<p>type your comment in the box.</p>



- b) Enter your password if your WebCenter server requires it.
- c) Click the **Commit** button.

### Marking Pages in a Page List

When you need to approve pages of a page list, you can first open it in the Viewer to inspect. You can then mark the pages ready to be approved, rejected or commented. This allows you to do bulk approval actions on marked pages.



**Note:** You cannot mark pages in a multi-page document.

- Select the page you want to mark and click on the  **Mark** button (from the **Page list** ) tools to mark the active page. For more options, right-click :
  - **Mark**
  - **Mark all pages**
  - **Clear marks on all pages**
- You can also right-click on any of the page thumbnails in the Page list widget to get the following options :
  - **Mark / Clear Mark**
  - **Mark all pages**
  - **Clear marks on all pages**
- To clear the mark or marks, click on the  **Clear Mark** button For more options, right-click :
  - **Clear Mark**
  - **Mark all pages**
  - **Clear marks on all pages**


### Viewing CAD with Graphics

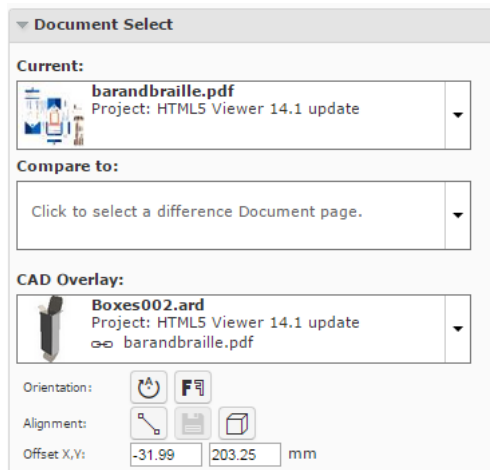
You can view a graphics document with its CAD overlay for reviewing purposes.

When you open a normalized graphics document (PDF) in the viewer, WebCenter will check the meta-data (XMP) for a linked ArtiosCAD (ARD) resource.



**Note:** This link between graphics and CAD can be made in a desktop application like DeskPack or PackEdge. Here the relative orientation and offset is determined and saved together with the graphics file meta data (XMP).

If a Structure /CAD reference is found, you will see this in the [document select](#) panel with a link  icon. You can select this to view together with the graphics document. If the graphics file does not have a XMP link, you can use the [document references](#) feature to link them.



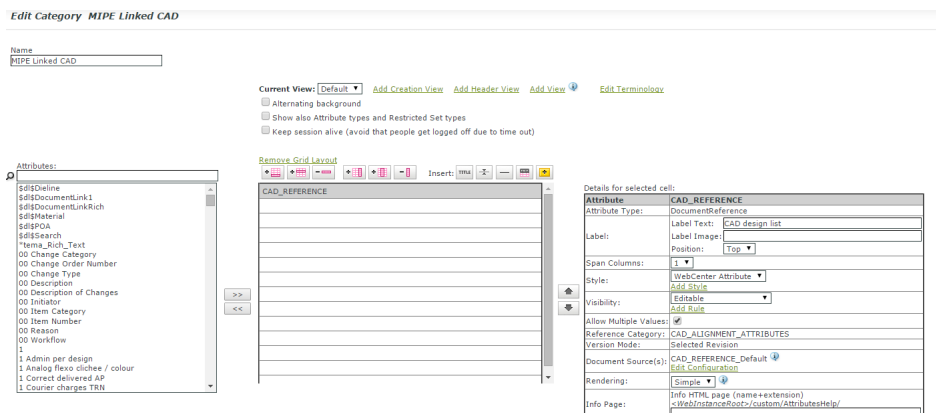
### Linking a CAD with Graphics using Document References

You can assign a **Document Reference Attribute** in your graphics file to refer to a CAD Overlay. To use this feature, you need a few **Attributes** with **specific** names. These are created automatically during installation or update of your WebCenter.

- CAD\_OFFSET\_X (**distance**)
- CAD\_OFFSET\_Y (**distance**)
- CAD\_ORIENTATION (**integer**).
- CAD\_REFERENCE (**document reference**)
- CAD\_PRINTABLE\_PART
- CAD\_PRINTABLE\_PART\_SIDE
- CAD\_FINISHING\_PROFILE
- Add the CAD\_REFERENCE attribute to a new category or an existing category. You can name this category according to your needs.

a) Configure a document source for your CAD overlay files.

Read in: [Adding Document Sources for a Document Reference Attribute](#) on page 383.



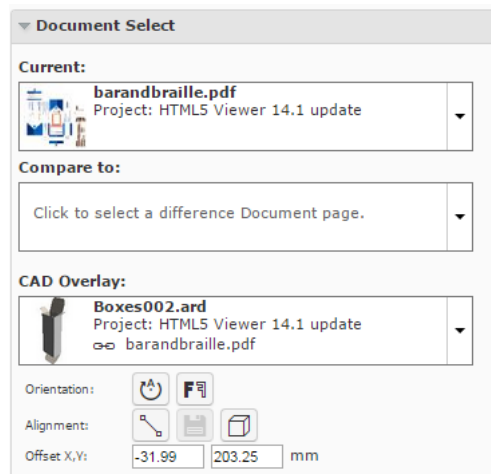
- Assign this **attribute category** to a graphics file.

Alternatively, **configure document types** in your Project/Template and assign your attribute category containing CAD\_REFERENCE as the **default attribute category** for graphics.


- Select or upload a CAD overlay file to the category of your graphics document.




- Open the Graphics file in the Viewer once the View files are prepared. The Viewer will load the linked CAD reference in the **CAD Overlay** section of the **Document Select** widget.




If the CAD reference is stored via a **Document Reference Attribute**, the user can alter and save the CAD Overlay settings to the graphical document.

When a graphics document is opened with the CAD\_REFERENCE attribute, you can **Save**  the alignment changes made in the viewer.



**Note:** You need the rights to change a document attribute to get the  option. The administrator has to enable **Document > Security Change properties** option for you.

The **Save**  option is enabled when:

- you change the alignment. For example, new offset values.
- you select a new CAD overlay.

If you select another CAD file as the overlay, the previous file (with link icon) is deleted from the document selector. You will see the new overlay in the selector with an active link.

The new orientation and offset will be saved to the CAD\_REFERENCE attribute of the graphical file.



To remove the CAD link from the graphics file, click **Turn off CAD Overlay** in the **CAD Overlay** selector and **Save**.

Read also:

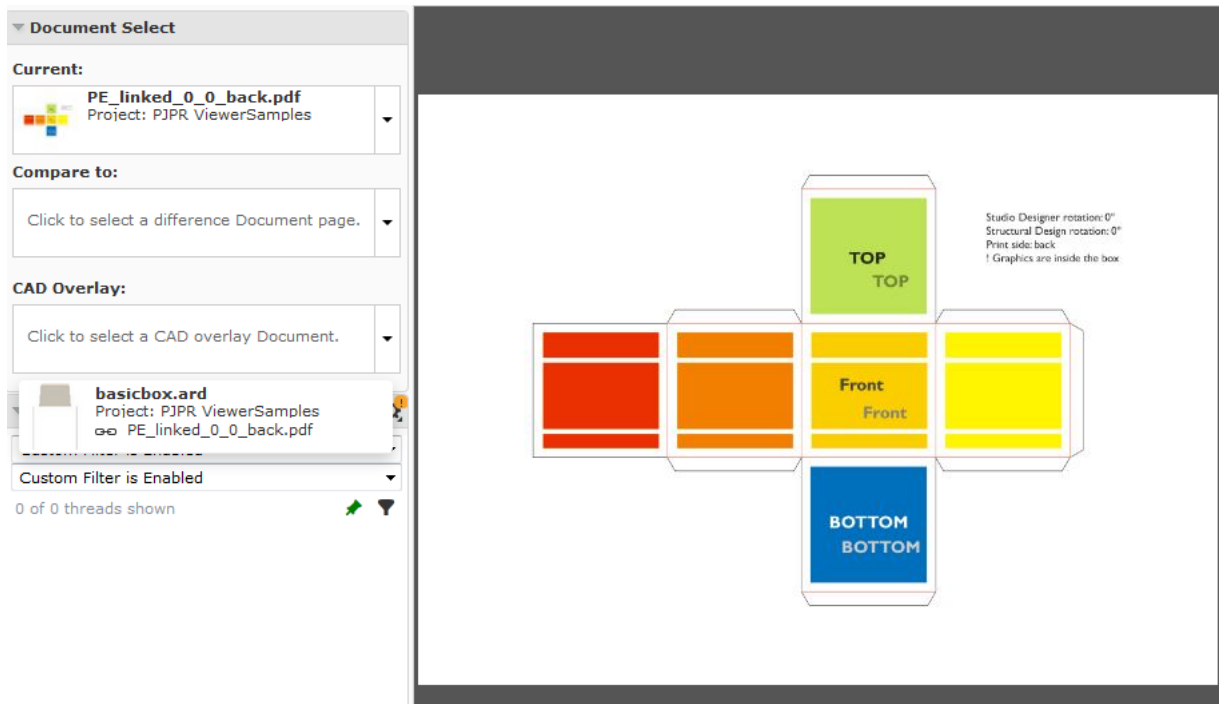
- [Aligning CAD overlay and Graphics](#) on page 728
- [Viewing 3D in the HTML5 Collada Viewer](#) on page 730

### Aligning CAD overlay and Graphics

- To open multiple documents (both Graphical and CAD), select them and click **Actions > View and Annotate**.

You will see a graphics document as the current document.

If the active document has a *linked* overlay, the Viewer will display this as the linked CAD overlay in the document selector.





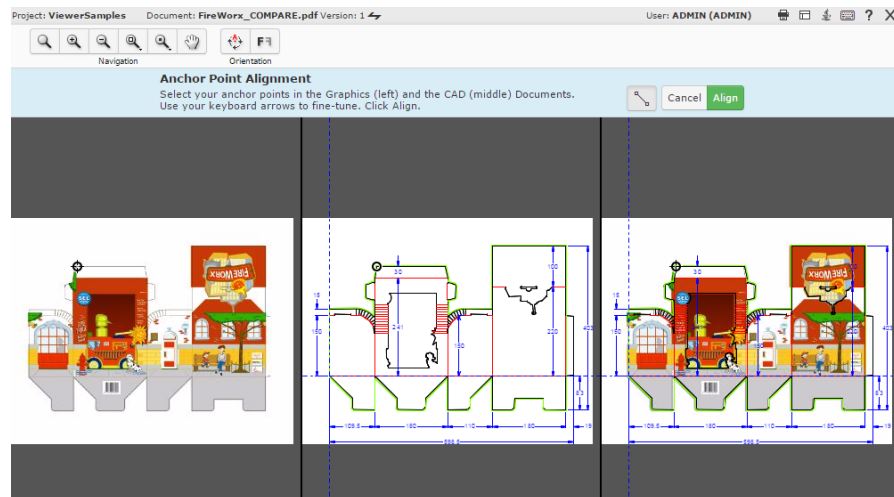
- Select the corresponding CAD overlay from the **CAD Overlay** selector drop down. This drop down will display all the available CAD files including the linked CAD files. The Viewer will display the selected CAD file on top of the graphics file. The **Orientation and Alignment** tools in this view allows you to position the overlay accurately on the graphics file.

- **Anchor Point alignment**  for CAD overlay.



**Note:** The respective buttons indicate whether the rotation / mirroring / inverting of the reference document is currently on or off.

- **Offset X,Y** for CAD overlay
- Use the **Rotate CAD Overlay**  tool to rotate the overlay to match the graphics correctly.
- **Mirror CAD Overlay** **F3** will flip your overlay with respect to the graphics document. This will show you the opposite side of the CAD overlay. If the current view is the inside of a box, flipping will display the outside view.
- Use the **anchor point** alignment tool to align the CAD overlay on graphics correctly.
  - a) Click on the **Anchor Point Alignment**  tool. The Viewer will transform to the anchor point alignment mode. You can access the **navigation** and **orientation** tools in the top panel.



**Note:** The active anchor can be recognized by the crosshair icon.

- b) Select the anchor points in the Graphics and CAD documents. Use the arrow keys to fine-tune your anchor points. You can also drag the selected point to a new location.
- c) Click **Align**.
- You can change the values in the **Offset X,Y** fields to be precise.



**Note:**

If you are aligning two graphics files, the offset will be the distance between the **current** and the **reference** according to the graphics coordinate system (positive horizontal is set to the right and positive vertical is pointing downwards).

For CAD overlay and graphics, the offset is taken as the distance between the CAD overlay and the graphics page using the CAD coordinate system (positive vertical pointing downwards).

While aligning two CAD files, the offset is the distance between the **reference** and the **current** document page (in that order) according to the CAD coordinate system.

- **Save** the alignment changes.
- After aligning the tools, you can generate a [3D](#). You can also use the tools in the [CAD](#) on page 683 widget to further refine the display.

If you did not save the alignment changes before generating 3D, you will see a message:

Do you wish to change your CAD overlay alignment?

Click **Save** to generate 3D.

## Viewing 3D in the HTML5 Collada Viewer

You can view 3D digital mockups in the HTML5 Collada Viewer.

This will help you to:

- Enhance artwork and shape approval with its 3D representation.

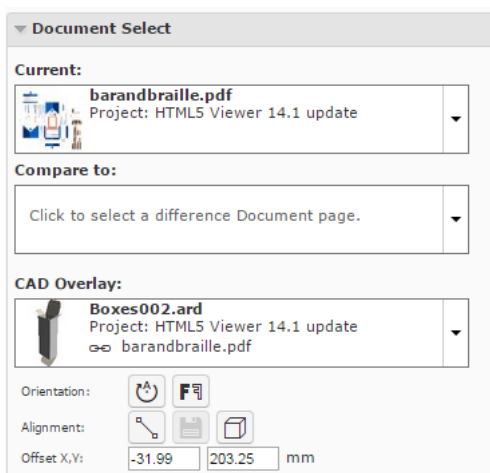


- Communicate the final packaging in the most realistic form.
- Use WebCenter as an online medium to share 3D mockups.


In the HTML5 Collada 3D Viewer, you can view the following files:

- Collada
- Aligned CAD and Graphics [Viewing CAD with Graphics](#) on page 725
- CAD [Viewing CAD Design files as 3D](#)

### Generating a 3D View from a Graphics file with CAD reference



- Open a graphics file with a CAD reference. Align the CAD overlay correctly on the graphics file. Read: [Aligning CAD overlay and Graphics](#) on page 728.

When you open a graphics file with a CAD reference in the Viewer, the *document select* panel will show a  button.

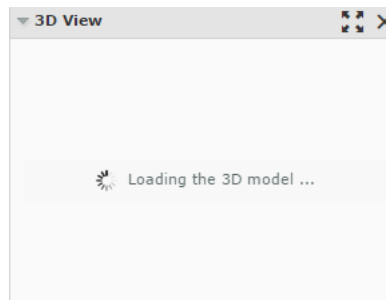


**Note:** The link between graphics and CAD can be made in a desktop application like DeskPack or PackEdge or using [document references](#). [Aligning CAD overlay and Graphics](#) on page 728

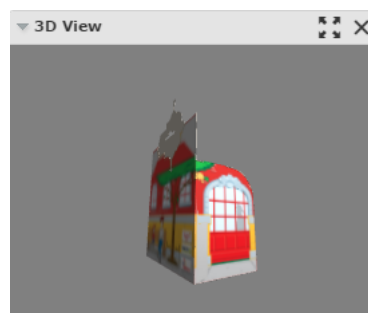
- Click the **Open 3D View**  button.

The Viewer will open the [3D View](#) widget with a message.



Loading the 3D model...



The **3D View** widget always shows the HTML5-version of the 3D viewer. After the 3D generation, you can view the 3D mockups in this widget.



From within this widget, you can:

- **Open the 3D Viewer**  in a new window
- close the **3D View** widget.
- After the 3D perspective is generated, the **Open 3D View**  button is available in:
  - the [top tool panel](#)
  - the [CAD widget](#)
  - the **Documents** list and from all pages where the **document operations** area available.




- To generate a 3D Perspective from the **Document Details** page, go to **Document Information > More Actions**. Choose **3D View(Collada)**.

- To delete a 3D Perspective, go to **Document Details > Document Information > More Actions**. Choose **Remove 3D View**.


**Opening Documents in the 3D Viewer**

Once you have a generated a 3D perspective by opening it in the HTML5 3D Collada Viewer, you can open this again from different pages in WebCenter.

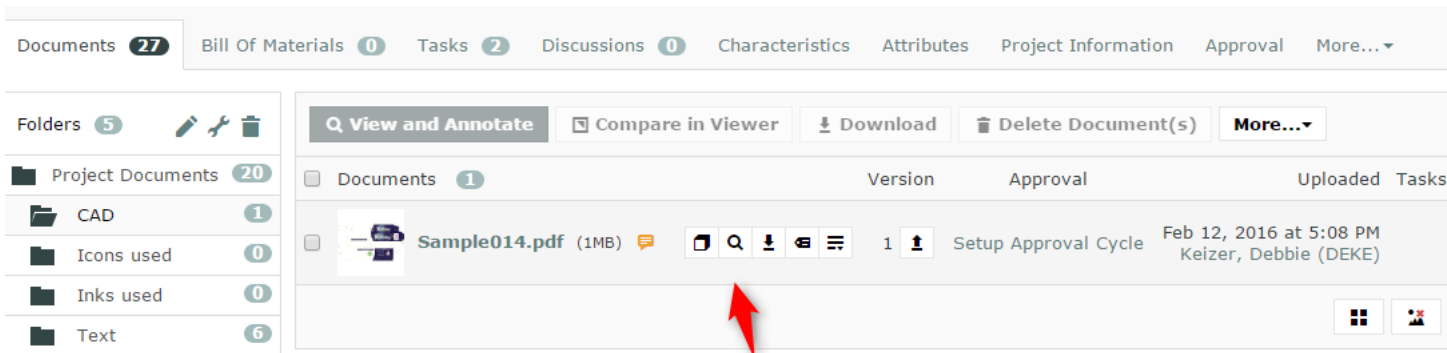
You can also generate a 3D Perspective from the **Document Details** page. To do this, go to **Document Information > More Actions** and choose the **3D View(Collada)** option.

You will have the **Open 3D View**  button next to the normal **document operations**. You will have this option for:

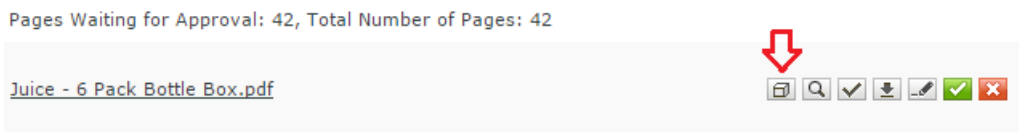
- Graphics Files with aligned CAD reference
- ArtiosCAD Design and Canvas files
- ArtiosCAD 3D files

To open a 3D view, click  from:


- The **Task** execution page:



- The **My Work > My Approvals** page:



- The Document search results:

 **Note:** For this option to be available, enable **Search > Documents > Show Result Layout Options > Document Operations > View**. Read more in: [Document Operations in Search](#).

(if View is an enabled Document Operation in the search Result Layout Options) – grid and list view

Name: [Juice - 6 Pack Bottle Box.pdf](#)  
 Description:  
 Project: [HTML5 Viewer 14.1 update](#)  
 Actions: 



[Juice - 6 Pack Bottle Box.pdf](#)




### Annotations and the 3D Viewer Positions

The 3D Viewer can remember its view position when you create annotations in the Graphics document.

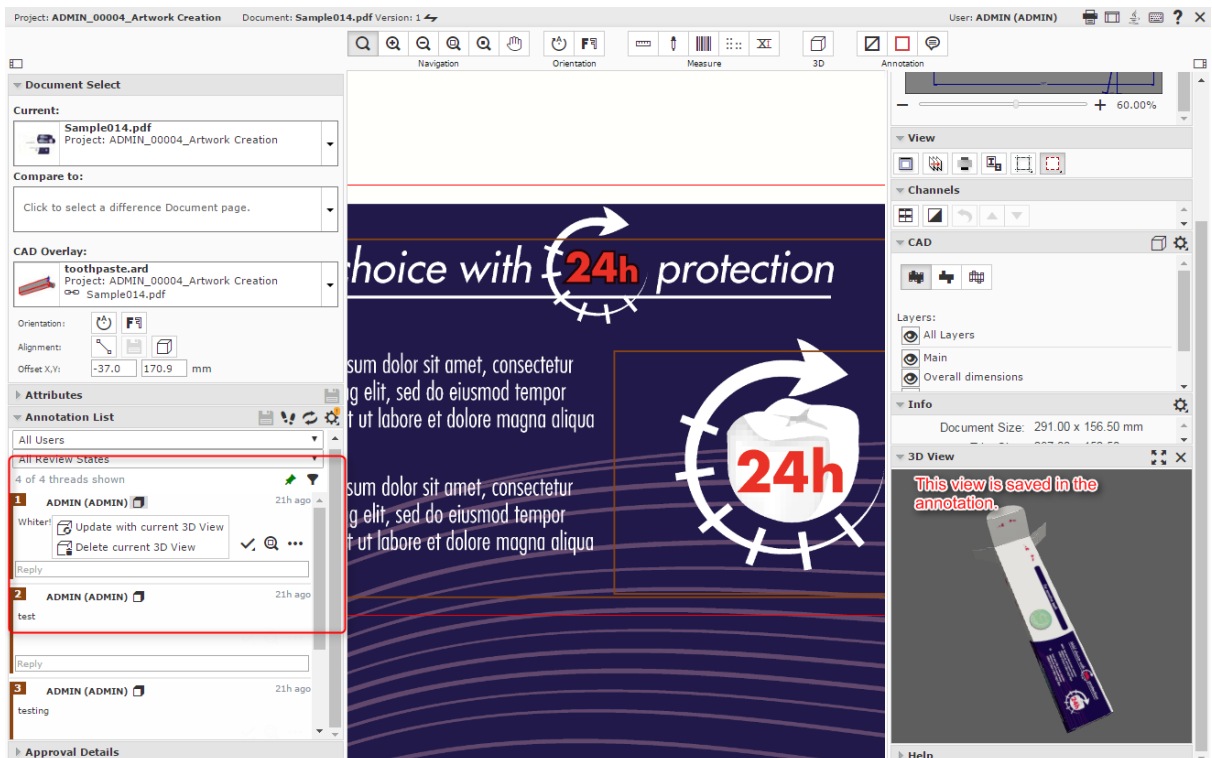



**Note:** The 3D view that will be remembered along with an annotation will be the view that is currently on. For this feature to work, the 3D view widget has to be open in the Viewer.

- To save a camera position of the 3D viewer into an annotation:
  - a) Open the **3D View** widget by clicking  button on the Top Tool Panel.
  - b) Add your Annotation in the view port and click **Save**. The view position in the 3D view is now linked and saved with the annotation



**Note:** You cannot add a 3D View position to replies or linked annotations.



- When a 3D view is saved to an annotation, use the  icon in the Annotation List widget to delete or update the 3D view:
  - a) Select the saved annotation in the Annotation List.

- b) Use the **Update with current 3D view** from the Actions List from the Annotation List widget or the Annotation pop-up and save the annotation. You can also do this even when there is no previous camera position saved in the annotation.



**Note:** The 3D widget should be open to update or save a new 3D view.

- c) Use **Delete Current 3D View** from the Actions List to delete the stored 3D position and save.

### Viewing Component Document in the Viewer

A component is considered “viewable” once it meets the following conditions:

- Contains one or more document reference attribute
- The attributes contain in total at least a document

Viewable components can be opened in the viewer. The documents attached to the component are loaded dynamically and are visible in the document selector.

If the documents attached to the component are not viewable, then opening the component in viewer throws an error.

### Component Widget

The component widget displays the configured document references on the component and the documents that it contains.

By clicking on a document in the tree structure, it becomes selected and behaves as if it would have been selected in the document selector.

The component widget stays visible if the currently shown document is part of a component structure.

If the component has the CAD\_REFERENCE attribute with at least one document, and the component is the current selected page; then the 3D document present in the first row of that document reference is shown in the viewport.

If the first document is not a 3D document, then the loading of the 3D documents fails in the viewport.

### Combining 3D + graphics view

When the component is the active document then it shows the combination of all graphical files that are linked to the same CAD\_REFERENCE document as the component CAD\_REFERENCE document. To apply graphics to a 3D structure, see [Use 3D file as 3D perspective](#)

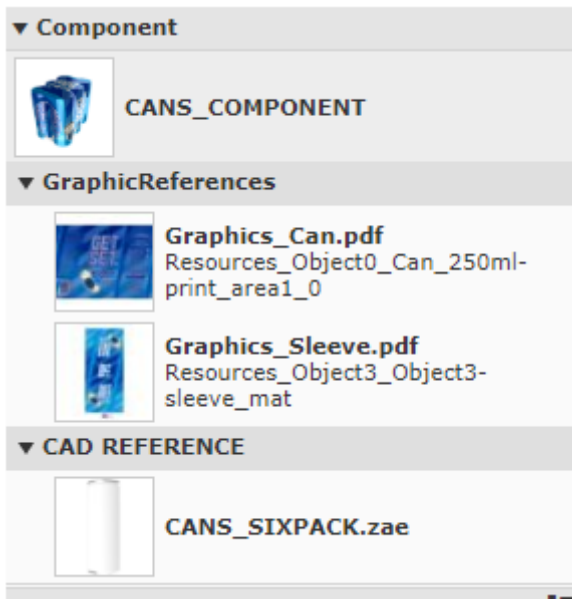
Following requirements must be met:

- Graphic files must be referenced from the component in a document reference attribute
- Graphic files must be linked to a structured 3D document with a specified printable part
- Both component and graphic document must point towards the same CAD\_REFERENCE

This is useful to see multiple different graphical files being applied on the same 3D structure.

### Viewing Assembly documents in the Viewer

Component documents can be opened in the viewer, if it has a document reference attribute containing at least a single document. On opening a component document with reference, this widget is populated and displays the attached documents.



The component widget displays the configured document references and the documents that it contains. If the component document has a document reference namely, CAD\_REFERENCE attribute containing a 3D viewable file then it displays that 3D model when the component becomes the current selected document.

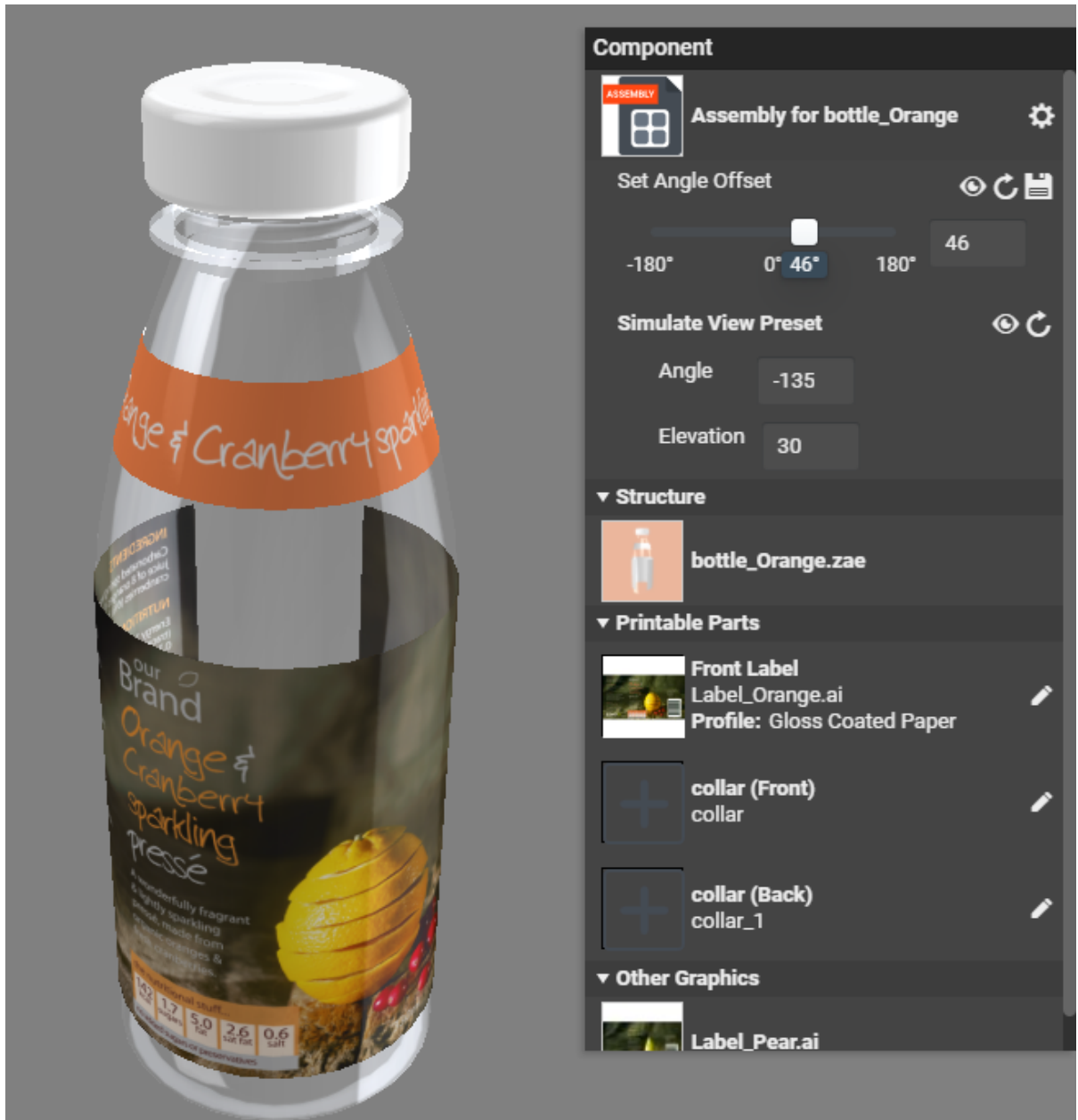
The component widget stays visible if the currently shown document is part of a component structure.

**Assembly Documents in Component Widget**

The Component Widget displays all the documents contained in the document references on the component document attribute category.

When opening an Assembly document in the Component Widget, it has three sections namely:

- **Structure** : First document present in the **CAD\_REFERENCE** attribute is shown and the graphic document is referenced by the assembly (any document reference).
- **Printable Parts**: Printable parts associated with the structure document are listed and if any graphical document is attached to the printable part, that document is shown along with the printable part.
- **Other Graphics** Graphics documents in the component which are not associated to a printable part are shown in other graphics section.



A graphical document is associated to a printable part if the document.

- Contains the attribute **CAD\_REFERENCE**, in which it references the structure document with the name of the printable part filled out in reference property **CAD\_PRINTABLE\_PART** and the graphic document is referenced by the assembly (any document reference) or
- Is referenced by the assembly's **GRAPHICS\_REFERENCE** attribute with the name of the printable part filled out in Reference Property **CAD\_PRINTABLE\_PART**.

**Assembly Properties**

- **Set Angle offset:** To define an offset angle for the package to be in. On changing the value, the angle is updated in the 3D view. Save the value if you wish it to be retained and on reloading the offset angle is remembered. There are also options to

- **Get from view:** change the angle offset based on how the model is turned in the 3D view or
- **Reset:** Allows the offset to be changed to the original value and
- **Save:** Saves the value in the CAD\_OFFSET\_ANGLE attribute in the Assembly Document attribute
- **Simulate View Preset**

You change the values of the Angle and Elevation while creating packshots. When you change the values of angle and elevation, the 3D viewer changes the camera to this position. You also have additional options to



**Note:** Values changed are not saved

- **Get From View:** Update the fields with the angle that the viewer is currently in
- **Reset :** Changes to the angle in which it initially opened

### Editing Printable Part of the Structured Document

Printable Parts can be split in Front and Back side and can have different artworks on each side of the Structure documents. If only one of the two sides is defined, the other side displays the back of the selected side.

Click on the pencil icon on the printable part shown in the component widget and a pop up is visible.

You can attach or replace the graphics document for that printable part, as well as the Finishing Profile.



**Note:** Documents are attached for the printable part from the defined sources in the GRAPHICS\_REFERENCE attribute of the attribute category of the assembly. Only **Saved Search** and **Current project** document sources and only **Use by Reference** operation are supported.

You can save the changes for it to take effect in the assembly document.

Also note that to edit a printable part, the assembly should have the GRAPHICS\_REFERENCE attribute with the following reference properties defined in the rendering configuration:

- CAD\_PRINTABLE\_PART,
- CAD\_PRINTABLE\_PART\_SIDE,
- CAD\_PRINTABLE\_PART\_NAME,
- CAD\_FINISHING\_PROFILE.

Also if the attribute Category view contains a "Viewer" view, this view should also contains this attribute and reference properties.

### View Graphics with 3D

You can view graphics with 3D files in the viewer. For this link the 3D file to a Graphics Document.

To link the 3D document to a graphics document, use the steps as given in [Linking a CAD with Graphics using document references](#).

- Ensure the graphics file has the **CAD\_REFERENCE** (Document Reference) Attribute.
- The document is opened in the viewer as a 2D document.
- When there are 3D files loaded in the Viewer, you can link a 3D file to the Graphic Document using the **Structure Document** selector. Read more here [Structure Document Selector](#) on page 662



### Viewing Attributes

If the document in the Viewer has an **Attribute Category** with a Viewer specific View, you will see the **Attributes** widget in the Viewer.

The administrators can create such Viewer specific views. Read in: [Add Viewer Views](#) on page 332

For example, you can create **attribute category** based checklists for different **roles / groups**. When a **user** from that **role** or **group** views the documents with that **category**, this attribute checklist will be visible in the viewer. Read more about this use case in: <https://wiki.esko.com/pages/viewpage.action?pageId=170047115>.

As an another example, you can use this to view your document references in the Viewer. If you have more than one CAD document references associated with your graphics file, you can create a Viewer view for these attributes with specific **source** and **rendering** configurations. Your user will then be able to change a reference from the Viewer and save this configuration.



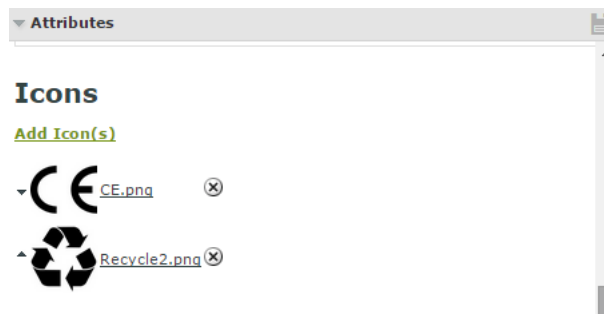
**Note:** Only the users with **Project / Folder** level **Change Properties** permissions can change and save attributes from the **attributes** widget.

If your document has **document references attributes**, you can view them from the **Attributes** widget. You can also do the **document operations** specified while configuring the document sources for the reference.



**Note:** The administrators can create a Viewer view for the document reference attributes with specific **source** and **rendering** configurations.

You can change a reference from the Viewer and save this configuration. This is only possible when you have **Change Properties** permissions.



### Video Support for files stored in MediaBeacon

Viewer supports video files from the Asset Management Connection, MediaBeacon. Video files can be opened like any other document or image file in the project. You can select the video from the document list in the Project Details tab and select **View and Annotate**. Videos files can be approved in the workflow directly.



**Note:** To set up MediaBeacon as the Asset Management connection, refer to [Configure Asset Management Connections](#) on page 436



**Note:** To import any file from the Asset Management, refer to [Document Creation Settings](#) on page 175

**Viewing Videos**

**Opening Video in Viewer**

You can open video files by either clicking on the document thumbnail in the document list or by choosing **View and Annotate** for the selected video.

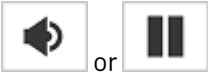
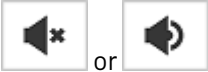

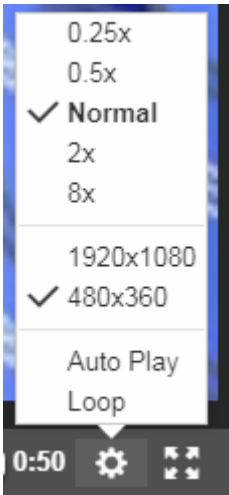

**Video Toolbar**


Toolbar for video viewer has specific video controls. Detailed description of the other tools can be read at [Top Tool Panel](#) on page 644



**Note:** Viewer displays the tools which are relevant for videos.

**Controls to View Video and Advanced Video Settings**

Select	Button	Performs
	<b>Play or Pause</b>	Depending on the video state the button toggles to <b>Play/Pause</b>
	<b>Mute / Unmute</b>	Mute or Unmute the volume in the video. Use the slider to increase or decrease the volume.
	<b>Timeline Slider</b>	Helps to slide through the video and displays the total length of the video at the end. You can slide forward to watch the video ahead.
	<b>Settings</b>	Videos can be set to play in <b>Auto Play</b> which plays on opening of the viewer , or you can start the video manually on opening. <b>Loop</b> allows to play the video in loop until manual intervention. Speed can be chosen as .25x , .5x, Normal, 2x or 8x. Quality of the video display can be chosen if the video has multiple display resolutions.
	<b>View Full View / Exit Full View</b>	Toggles to either view full screen or exits from full screen

Select	Button	Performs
		 <b>Note:</b> Alternatively use Esc key to exit full screen

**Options in Viewer for Video files**



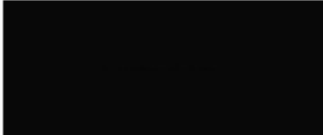



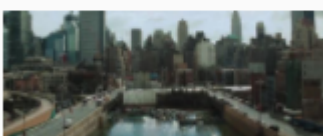
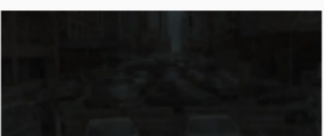


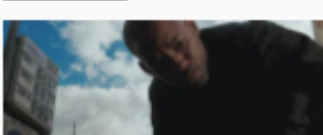
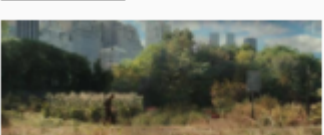
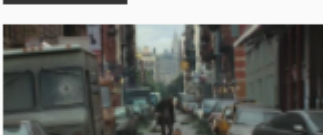
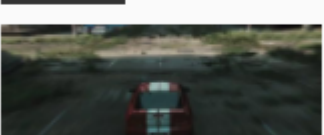
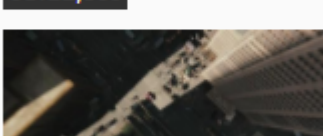
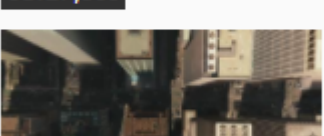
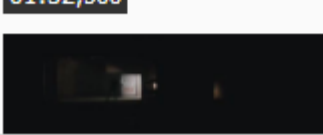
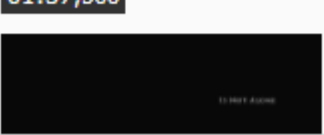
Following are the widget options available for video files

- **Approval Details** widget functions the same way to document approval. Refer to [Evaluate a Document in the Viewer](#) on page 702
- **Info** has the details of the document viewed. Refer to [Info](#) on page 669
- **Help** to learn more about the viewer.
- **Key Frames** refer to [Keyframes](#) on page 741
- **Annotation List** refer to [Annotation List](#) on page 664

**Keyframes**

Keyframes widget displays the preview of different frames at regular intervals from the video in sequential order. This helps to easily navigate and locate any frame in the video. You can choose any frame displayed to jump to that point in the video.

▼ Keyframes

 00:22,500	 00:27,500
 00:32,500	 00:37,500
 00:42,500	 00:47,500
 00:52,500	 00:57,500
 01:02,500	 01:07,500
 01:12,500	 01:17,500
 01:22,500	 01:27,500
 01:32,500	 01:37,500
 01:42,500	 01:47,500



**Note:** If you are viewing an annotation and select a key frame that is outside the range of the annotation, the annotation is deselected. If the key frame is inside the range of the annotation, the annotation remains selected.

## Annotations for Video

### Add Annotations in a Video

A note or comment can be added to the video file as an Annotation. To add an annotation in a video file, use the **Add Annotation** from the toolbar. For detailed information on **Annotations**, refer to [Annotating in the Viewer](#) on page 686.

In video files, adding an annotation pauses the video. The **Start Time** and **End Time** of the annotation is taken as the current time in the video. This can be edited manually by modifying the time and saving the annotation.



**Note: Annotation List** in videos also displays the start and end time of the Annotations.

### Viewing Annotation

Annotations are displayed only when the current time in the video is within the specified start and end time of the annotation. You can view all the annotation in the video file by selecting Annotation List. Refer to [Annotation List](#) on page 664 for details.

### Timeline Slider

The Timeline slider displays three indicators, representing the Start Time, Time within the Video and the End Time.

You can also edit the **Start Time** and **End time** by selecting the Annotation in the **Annotation List** by dragging the Start and End time indicators in the Timeline Slider.

Colored markers in the timeline slider show all the available annotations in the video. These markers are visible, only when no annotation is selected.

If the start and end time of the selected video are different, then the video is played in loop. To continue playing the video, close the annotation pop up.



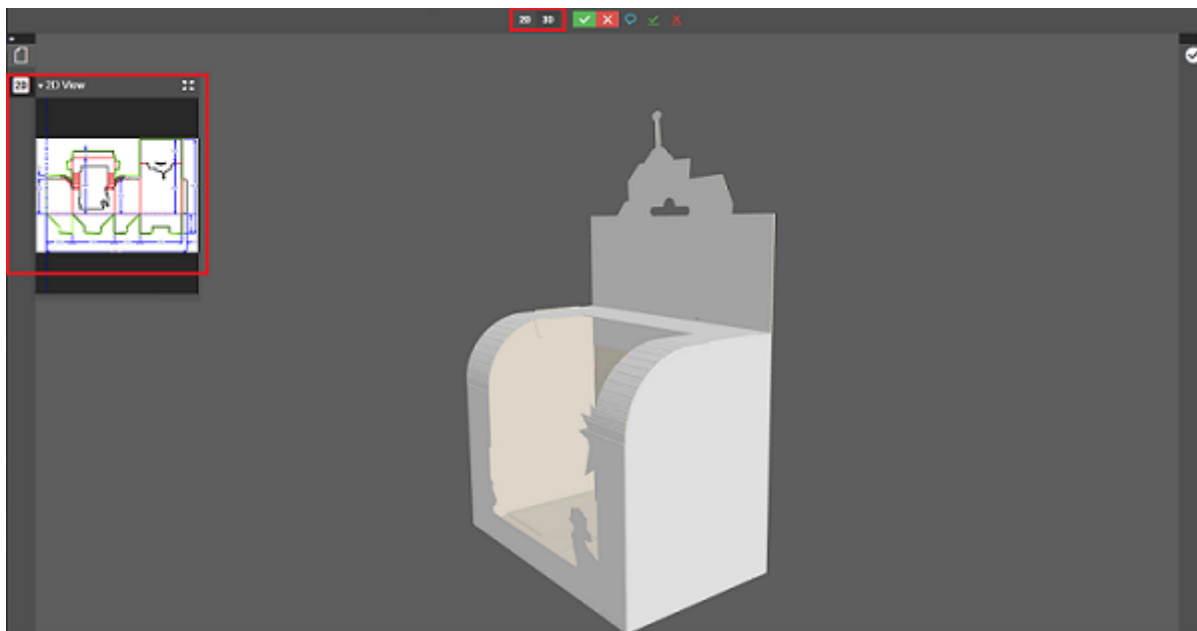
**Note:** If the start and end time is same for an annotation, then the video is paused.

## Unified Viewer

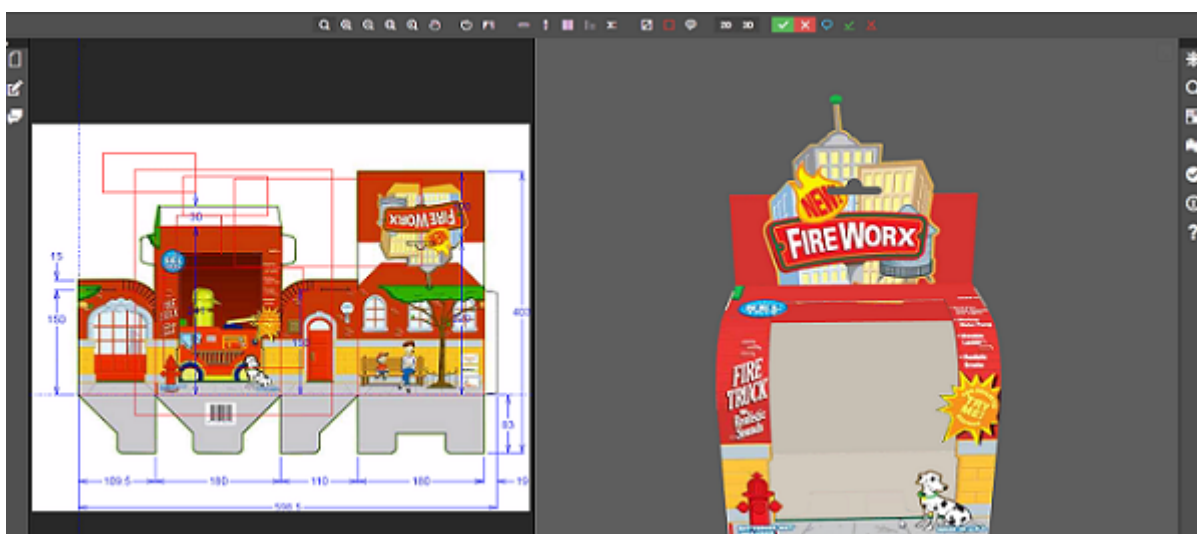
### View 2D and 3D versions together

Viewer allows to view both the 2D and 3D perspectives in the center pane. You can use toggle buttons to switch between 2D and 3D view. When you choose to view the 3D perspective in the center pane, 2D perspective is displayed on the side panel and vice versa.

When 3D perspectives are opened in the viewer, all the other toolbar elements and other widgets are collapsed in the viewer except for **Document Selector** and **Approval Details**.



Using toggle buttons, you can simultaneously view both 2D and 3D in the center pane.



### Limitations in the HTML5 Viewer

Following features are not available in the HTML5 Viewer yet:

- Advanced View features such as Seamless View or Advanced Flexo tools for screened data.
- Collaboration mode

See <https://wiki.esko.com/display/KBA/KB90866114%3A+WebCenter+-+HTML5+Viewer+known+limitations> for a feature matrix.

### About the HTML5 Viewer

The HTML5 Viewer is a fast and comprehensive viewing tool introduced in WebCenter 14.

From WebCenter 21.07 onwards, the HTML5 Viewer is the only supported WebCenter Viewer.

#### What does the HTML5 Viewer offer you?

- Speed: fast viewing for Graphics and CAD files. High speed 3D viewing (14.1 and later).
- Compatibility: high speed performance on the new client browsers.

Browser	Supported Version - Windows OS	Supported Version-Mac OS OS
Microsoft Edge	Latest	-
Firefox	4.0 or higher	4.0 or higher
Chrome	5.0 or higher	5.0 or higher
Safari	-	5.0 or higher

- Reliability: high accuracy in displaying your data.
- Detail: advanced zoom to see finest details, measuring exact distances. Fast zooming.
- Customizable widgets. You can even restrict access to certain features depending on the user preferences.
- Keyboard shortcuts. To see all of them, press **?**
- Easy access to help and knowledge base. Search in the **Help** widget or press **F1** to access help.



**Note:** The HTML5 Viewer does not offer live collaboration or working together at the same time. You can use [annotation threads](#) for discussions.

### Using 3D file as 3D perspective

You can use any 3D file as a 3D perspective of a graphics file in the WebCenter viewer. You can also view both the graphics document and the 3D file next to each other.

To view the files in the viewer, ensure there is a document reference attribute called **CAD\_REFERENCE** in the graphics document. Follow the steps below to open a structure document.

You can use the structure document in the Structure document selector.

After selecting a 3D Document as 3D perspective, save the link using the save button next to the Structure Document Selector.



**Note:** This is only possible if the Document has the Document Reference Attribute **CAD\_REFERENCE**, in which the link is stored.

If a printable part is selected and the alignment options are saved, then the 3D widget displays the 3D shape along with the graphic file applied to the specified printable part.



**Note:** The printable part is saved in the document reference properties **CAD\_PRINTABLE\_PART** and **CAD\_PRINTABLE\_PART\_SIDE** of the **CAD\_REFERENCE** attribute that points to the 3D file.

**Viewer**

- **Viewer Workspace:** Select any workspace from the dropdown or **Create new Workspace** by selecting the option. Select the gear icon to open the Workspace Configuration pop-up window and view the options available in workspace selected or to edit the configuration in the workspace.  
  
You can choose to add or delete any tool or widget to the workspace or altogether delete the workspace itself.
- **Unregistered User Viewer Workspace:** A workspace is configured specifically for unregistered users who access WebCenter Viewer, when they are shared with a document to view or to approve. Other workspaces or tools/ widgets are not visible apart from the workspace configured by the Admin User. Admin user can also create a new workspace specifically for this purpose.
- **Annotation Color** sets the color in which annotations will be displayed in the Viewer (you can set **Viewer Default** or choose a color from the list).
- **Annotate Approved Documents** sets if and how the users are allowed to annotate documents that are already approved.
  - Select **Enabled** if you want the users to be allowed to annotate approved documents.
  - Select **Warn if Approved** if you want to display a warning before allowing the users to annotate approved documents.
  - Select **Read-Only if Approved** if you don't want the users to be allowed to annotate approved documents.
  - Select **Warn if Approved or Rejected** if you want to display a warning before allowing the users to annotate approved or rejected documents.
  - Select **Read-Only if Approved or Rejected** if you do not want the users to be allowed to annotate approved or rejected documents.
- **Annotate Documents under Approval** sets who can add annotations in the documents under approval.



**Note:** A document version is considered under approval as soon as an approval cycle is started

Choose from the following settings:

- **All Users:** This is the default setting. All users with view access to a document can annotate that document once the approval cycle has started.
- **All Approvers and Approval Master:** The Approvers and Approval master defined in the document approval setup (all stages) for the current version can annotate during the approval cycle.
- **All Approvers:** All approvers defined in the document approval setup (all stages) can annotate the document while it is being approved.
- **Pending Approvers and Approval Master:** Only an approval master or approvers who can submit an approval state (Approve or Reject) for the current version can annotate the document during the approval cycle.
- **Pending Approvers Only:** Only approvers who can submit an approval state (Approve or Reject) for the current version can annotate the document during the approval cycle.



- Specify the **Viewing Quality** as:
  - **Best Performance** (Default): In this mode, the Viewer uses less compression to transfer images. These images are transferred faster but may contain small compression artifacts.
  - **Best Quality**: In this mode, the Viewer uses less compression to transfer images. It takes longer to transfer these images. However, you can view them without compression artifacts.

- **Settings for Automated Artwork**



**Note:** The below options are visible only when Automated Artwork license is enabled.

- **Task Type for Bulk Text Replace:** Choose from the list of task types shown. The selected task type is used in the **Files marked for Edit** widget when editing Artworks in the Viewer.
- **Text Replace Library:** Choose from the list of Text Document Saved Searches shown. The selected Saved Search is used in the **Action List** Widget. Read more about it [here](#).



**Note:** This option requires Packaging Content Management License.

- **PCM Attribute for linking Text Statements:** Choose from the list of document reference attributes shown. The selected document reference attribute is used to attach text content documents (such as .wcc) when saving a graphic file modified with **Action Lists** in the viewer.



**Note:** This option requires the Packaging Content Management License.

- **Log out user when inactive** Select this option, to log out the users whose sessions are not active for a period of time. Option is given to log in again and continue when the user returns to the viewer.
- **Stream video through WebCenter proxy** Enable this option to open video files located in Asset management system in the HTML5 viewer.
- **Show Discussions in Viewer** Enable this option to view discussions widget in the viewer and view all the discussion posts about the document viewed.



**Note:** Project Managers who can Force Approve or Force Reject is not considered an approver. They can add annotations only if the setting is **All Users**.

## Editing Artwork in Viewer

Text within an Artwork may have to be edited or modified sometimes or a single word may have to be replaced in multiple artworks to suit the current marketing campaign. In such instances, depending on an Artwork designer to perform the change may delay the flow of work and add to the cost.

You can use the WebCenter Viewer to modify the artwork on the go and instantly save the changes to the artwork. This saves time, effort and dependency on the artwork designer and thus reducing the time taken from the ideation to the product on shelf.



**Note:** Automated Artwork license is required for this functionality to be enabled in the Viewer.

To enable the edit mode for the document, **Switch to Edit Mode** in the Viewer.

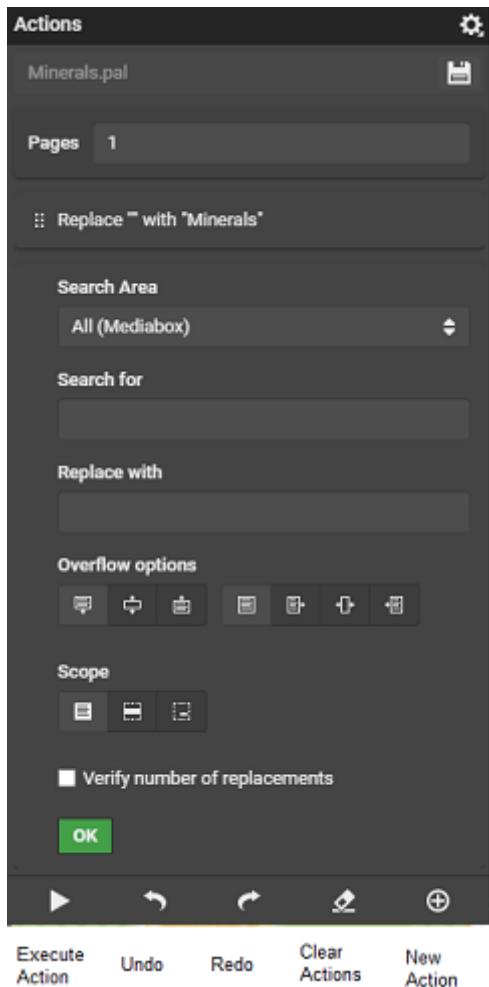
Two new widgets are available in the **Edit** mode namely,

- [Action List](#) Widget
- [Files Marked for Edit](#)

**Action Widget**

You can view the AI (Adobe Illustrator document) or PDF document in the edit mode in Web Center Viewer.

Action widget allows you to create an action list, which performs text replacement actions in the document. The actionlist can be saved to execute on other documents or to do a [bulk operation](#).



Action lists can be created and saved within the same project as the document or in different projects. Search and Replace Action is available. You can add a **New Action** or **Execute Action** or **Clear Actions List** or **Undo** or **Redo** the previous operation. For each of the Action, edit or delete or reorder of the action is possible.

**Steps to create a New Action**

You can search for (live) text phrases and replace them with another text phrase. Follow the steps given below to create a new Action list:

1. **Search Area:** You can choose an area of the artwork where the text has to be searched for. You have three options in the drop down namely

- **All:** All the textboxes in the artwork are included.
- **Trimbox:** Only textboxes within the trimbox of the artwork are included.
- **Custom:** Textboxes within the specified region which is indicated by x, y and width and height are included.



**Note:** Click the button to select an area on the artwork

2. **Search For :** Type the text which has to be searched for, in the artwork as specified in Search Area.
3. **Replace With:** Type in the text to replace the matches with.
4. **Overflow options:** Sometimes the replaced text may be longer or shorter than the current text. When the replaced text is longer then choose the overflow options to specify how the extra text is shown in the artwork. For example, when the text "fresh apple" is replaced with "Juice and sumptuous apple".

Overflow can be dealt with

- **Vertical Overflow:** When the text is longer than the original text, the textbox can overflow to the bottom, top or in both directions.
- **Horizontal Overflow:** When the text is longer than the original text the textbox can overflow to the left or right or in both directions.
- **Max Width:** The maximum width of the textbox. Should be set in order to use the horizontal overflow.

#### 5. Overflow Scope

- **Selected Paragraph:** Applies Overflow options to the whole textbox
- **Selected Line(s):** Applies to the selected lines only and the rest of the textbox remains unchanged.
- **Selected Text Fragment:** Applies to the selected fragments of text and the rest of the textbox remains unchanged

6. **Verify number of Replacements:** Select this check box to verify the expected number of replacements. When there are less or more replacements than expected, the action will fail.
7. **Save :** You can save the **Action** created with the above steps as a Document in the current Project or you can specify the name of the document and by default it is saved in the root folder of the Project. The action list is saved as a document with a .pal extension.
8. You can choose to execute the action directly from this widget by selecting **Execute Action** and **Save** the document.

When you want to run the Action List for multiple documents use the **Files marked for Edit** Widget. Switch back to view mode to navigate back to the original view.

### Replace using text statements in Artwork

When a Text Content Search is configured in the **General Preferences** by the Admin user, the user can only replace text with Text Statements. Click the button to select a Text Statement from the Saved Search and select the correct translation of the text.

A saved search of text statements can be configured for the replacing the text in the **Edit Mode** in the **Action List** widget. Read how [here](#).



When a saved search is chosen, then the text cannot be replaced manually. When pcm setting is configured it is only possible to select text from a saved search

Choose a Text Content Document

### Saved Search Results based on configuration

Document Name	Description	Project Name	English - International	English - Great Britain	English - United States	Dutch - Belgium	Dutch - Netherlands	French - France	French - Belgium
Additional product variant information.wcc	MRJNL_TL_HTMLViewer_Action Widgets	ISOTONIC HYDRATION FOR YOUR BODY & MIND	Not Added	Not Added	ISOTONIC HYDRATION FOR YOUR BODY & MIND	ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST	ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST	ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST	Not Added
Additional product variant information.wcc	TL_HTMLViewer_Action Widgets	ISOTONIC HYDRATION FOR YOUR BODY & MIND	Not Added	Not Added	ISOTONIC HYDRATION FOR YOUR BODY & MIND	ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST	ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST	ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST	Not Added
Ingredients header.wcc	MRJNL_TL_HTMLViewer_Action Widgets	EACH 200-ML SERVING CONTAINS	Not Added	Not Added	EACH 200-ML SERVING CONTAINS	ELKE 200-ML SERVING BEVAT	ELKE 200 ml SERVING BEVAT	Chaque portion de 200 ml contient	Not Added
Ingredients header.wcc	TL_HTMLViewer_Action Widgets	EACH 200-ML SERVING CONTAINS	Not Added	Not Added	EACH 200-ML SERVING CONTAINS	ELKE 200-ML SERVING BEVAT	ELKE 200 ml SERVING BEVAT	Chaque portion de 200 ml contient	Not Added
Manufacturer statement.wcc	MRJNL_TL_HTMLViewer_Action Widgets	PACKAGING POWERED BY	Not Added	Not Added	PACKAGING POWERED BY	VERPAKING AANGEDREVEN DOOR	VERPAKING AANGEDREVEN DOOR	EMBALLAGE ALIMENTAIRE	Not Added
Manufacturer statement.wcc	TL_HTMLViewer_Action Widgets	PACKAGING POWERED BY	Not Added	Not Added	PACKAGING POWERED BY	VERPAKING AANGEDREVEN DOOR	VERPAKING AANGEDREVEN DOOR	EMBALLAGE ALIMENTAIRE	Not Added
Marketing copy.wcc	MRJNL_TL_HTMLViewer_Action Widgets	REFRESHMENT WITH ZINC & CHROMIUM	Not Added	Not Added	REFRESHMENT WITH ZINC & CHROMIUM	VERFRISST MET ZINK & CHROMIUM	VERFRISST MET ZINK & CHROMIUM	RAFFRAICHISSEMENT AVEC ZINC ET CHROMIUM	Not Added
Marketing copy.wcc	TL_HTMLViewer_Action Widgets	REFRESHMENT WITH ZINC & CHROMIUM	Not Added	Not Added	REFRESHMENT WITH ZINC & CHROMIUM	VERFRISST MET ZINK & CHROMIUM	VERFRISST MET ZINK & CHROMIUM	RAFFRAICHISSEMENT AVEC ZINC ET CHROMIUM	Not Added

**Selected statements , of which one can be chosen to replace the text**

Choose a Text Statement

Please select or start typing...

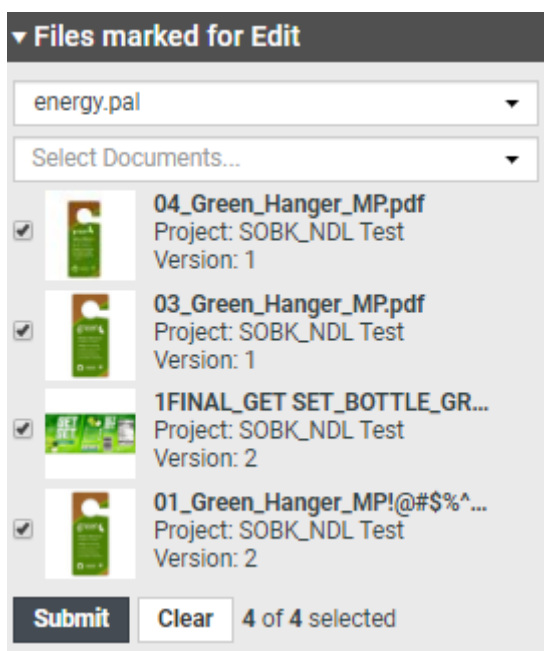
- ▼ Master Text
  - ISOTONIC HYDRATION FOR YOUR BODY & MIND
  - ISOTONIC HYDRATION FOR YOUR BODY & MIND
- ▼ Master Text - Languages which are not part of the Project
  - ISOTONIC HYDRATION FOR YOUR BODY & MIND
  - ISOTONIC HYDRATION FOR YOUR BODY & MIND
- ▼ Translations
  - ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST
  - ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST
  - ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST
  - ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST
- ▼ Translations - Languages which are not part of the Project
  - ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST
  - ISOTONISCHE HYDRATIE VOOR UW LICHAAM & GEEST

You can select multiple statements in any of the languages available for the statement, of which you can then select a single text statement as a replacement for the text on the artwork. Click on the document to switch.

After the search and replace of the text statement is performed and the modified artwork is saved, the selected Text Statement document can be linked using the Document Reference Attribute configured in the **General Preferences**.

### Edit text in Bulk

The **Files Marked for Edit** Widget makes it possible to make small text changes on multiple Documents. You can choose an **Action (.pal file)** which is created and saved in the Actions Widget.



Select the Graphic files from your Project where you want to execute the Action list. Click submit to execute the Action list (.pal file) on the selected files. A task is created in the project, where the artwork and the action list are attached.

## 4.5. Approving and Rejecting Documents

You can see documents waiting for your approval on the **My Work** page, under **My Approvals**.



**Note:** If you cannot see **My Approvals**, go to **My Work > Edit My Work Setup** to add it to your **My Work** page.

You can approve, reject or comment a document:

- from the **My Work** page,
- from the **Viewer**,
- from the document details page (**Approval** tab).



**Note:** Project Managers have more options when approving or rejecting documents. They can **Force Approve** or **Force Reject** a document. See [Forcibly Accept or Reject Documents](#).

Approvals, rejections and comments are shown on the **Action History** page.




**Note:** If you need to setup an approval cycle to have other users approve or reject a document, see [Defining Approval Settings](#) on page 799.

### 4.5.1. Evaluate a Document in the Viewer

When you evaluate a graphic file or a page list (see [Document Types](#) on page 608 for information about the supported file types), you can first open it in the Viewer to look at it in detail. You can then approve,







reject, or share a document for approving or viewing or add a stage or comment it directly from the Viewer.

1. Click the document's thumbnail or the  button.

You can do this from:

- the **My Work** page (under **My Approval** if you have documents to approve or under **Approvals to Follow Up** if you are an **Approval Master**),
- the **Documents** tab in the project,
- the header of the Document Details page.
- the viewer

2. In the top toolbar, click:

-  to approve the document,
-  to reject it,
-  to comment it,
-  to forward approval request
-  to force approve it if you are a Project Manager
-  to force reject it (if you are a Project Manager).

Alternatively these options are also available in the **Approval Details** widget. This is available only if the user has **Change Approval** permissions.




**Note:** You can view the status of the approval of the document in top tool bar.

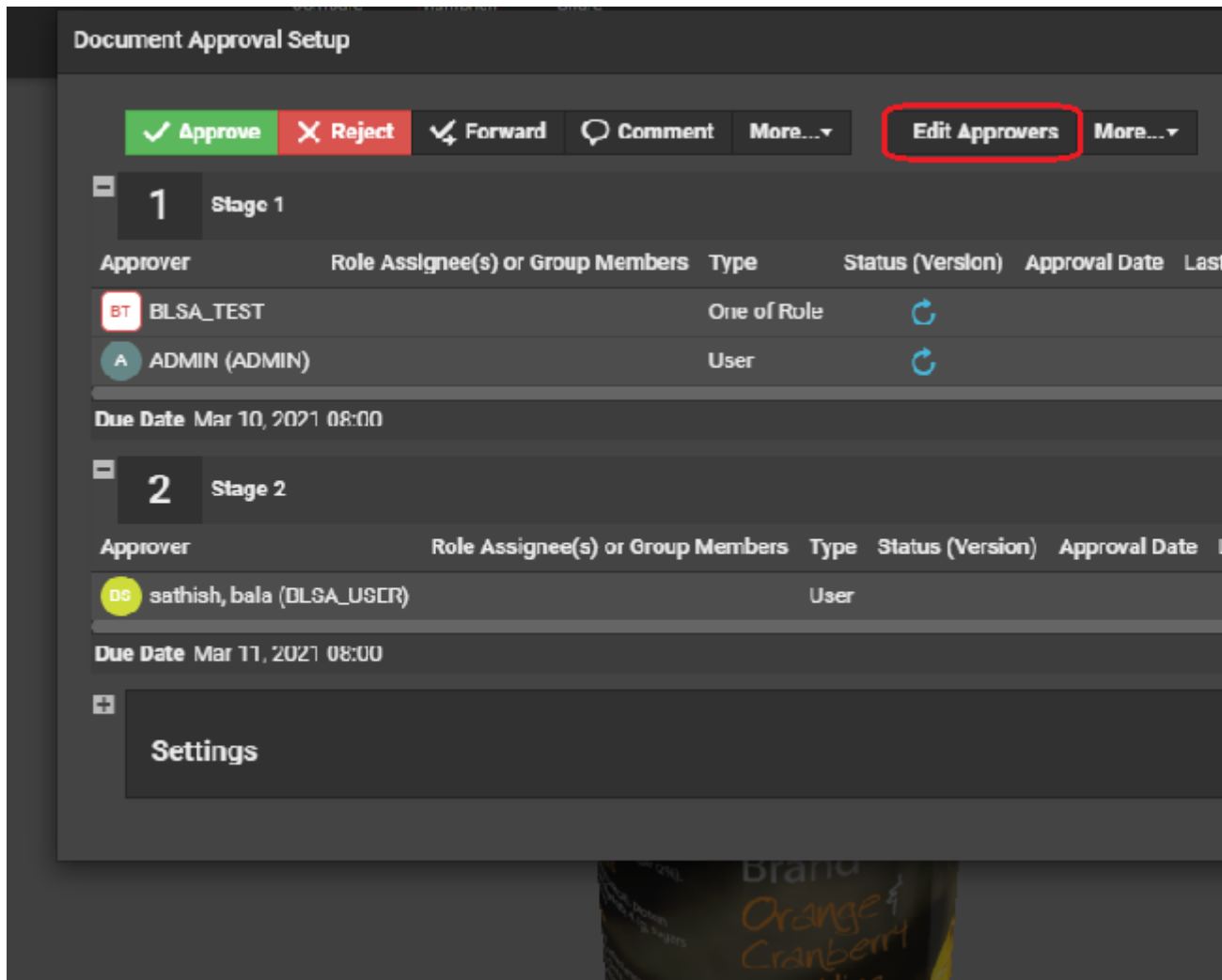
3. In the pop-up that opens, do the following:

if you are...	you can...
<b>approving or force approving the document</b>	set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set Approval Condition</b> and type your condition in the box.
<b>rejecting or force rejecting the document</b>	type a reason for your rejection in the box.
<b>commenting the document</b>	type your comment in the box.

4. If the user has **Change Approval** permissions, then the user can access the **Approval Setup** in the

Approval details widget. Click  to open the **Document Approval Setup** pop-up window. User can perform all actions as specified in [Defining Approval Settings](#) on page 799

5. It is possible to also Edit the approvers when the approval stage is in progress. When you click on the **Edit Document Approval Setup** , you can add a new approver or replace an existing approver based on the permission you have.



You can read about it in [detail](#).

6. Enter your password, if your WebCenter server requires it.

In case, the approval cycle is completed and the document is in Approved state, then the user cannot make any changes to the approval cycle from the viewer.

7. Click the **Commit** button.

A warning message is shown, if unsaved annotations are present, when you try to **Approve / Reject / Comment** on a document.

Once you have approved or rejected the document, you may not change its approval status later (only a **Pending** status allows future changes).

If you have entered an approval condition, a rejection reason or a comment, it will be shown in:

- the **Approval** tab of the Document Details page,
- the **Action History** tab of the Document Details page,
- the **Approval Details** panel in the Viewer.

To see all the documents you have recently evaluated, go to **My Work > My Recently Submitted Approvals**.








**Note:** If you cannot see **My Recently Submitted Approvals**, go to **My Work** and add it to your **My Work** page.

### 4.5.2. Evaluate a Document in the Document Details Page

When you need to evaluate an office file (like Microsoft Word, Excel, PowerPoint etc.), you can first download it and open it in the corresponding application, then evaluate it from the **My Work** or the Document Details page.

To approve, reject or comment a document from the Document Details page:

1. Go to the **Approval** tab.
2. Click:

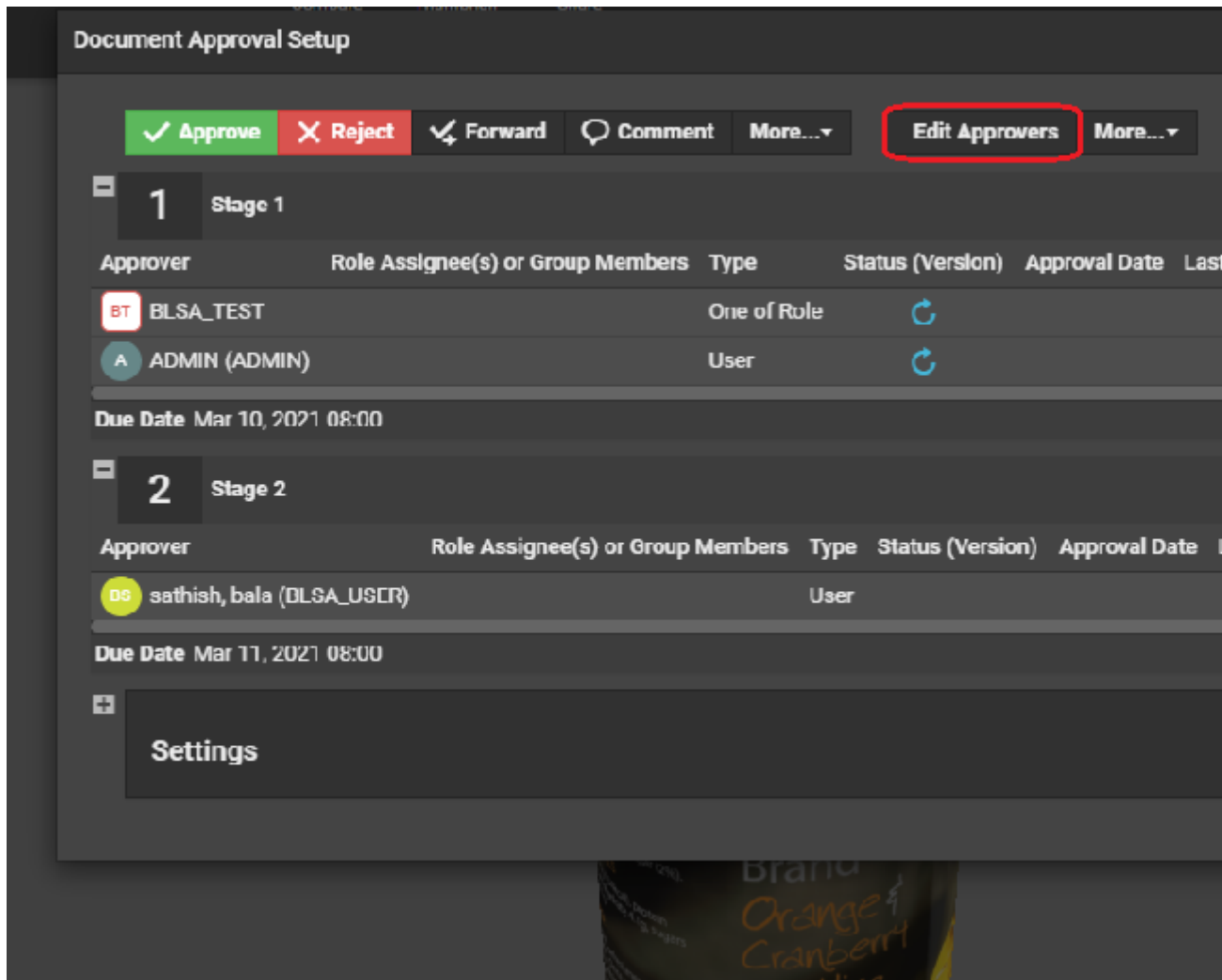
-  to approve the document,
-  to reject it,
-  to comment it,
-  to force approve it (if you are a Project Manager),
-  to force reject it (if you are a Project Manager).

3. In the pop-up that opens, do the following:

if you are...	you can...
<b>approving or force approving the document</b>	set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set Approval Condition</b> and type your condition in the box.
<b>rejecting or force rejecting the document</b>	type a reason for your rejection in the box.
<b>commenting the document</b>	type your comment in the box.

4. It is possible to also Edit the approvers when the approval stage is in progress. When you click on the **Edit Document Approval Setup**, you can add a new approver or replace an existing approver based on the permission you have.





You can read about it in [detail](#).

5. Depending on your choice, click **Commit Approval**, **Commit Rejection** or **Commit Comment**.

Once you have approved or rejected the document, you may not change its approval status later (only a **Pending** status allows future changes).

If you have entered an approval condition, a rejection reason or a comment, it will be shown in:

- the **Approval** tab of the Document Details page,
- the **Action History** tab of the Document Details page,
- the **Approval Details** panel in the Viewer.

To see all the documents you have recently evaluated, go to **My Work > My Recently Submitted Approvals**.



**Note:** If you cannot see **My Recently Submitted Approvals**, go to **My Work** and add it to your **My Work** page.

### 4.5.3. Evaluate Multiple Documents at Once

If you have several documents to approve or reject, and you have made the same decision about all of them (you want to either accept them all or reject them all), you can do this in one operation.

1. Go to your **My Work** page.
2. In the **My Approvals** section, select the documents to approve or reject.



**Tip:** To select all the documents at once, select the check box at the top of the documents list.

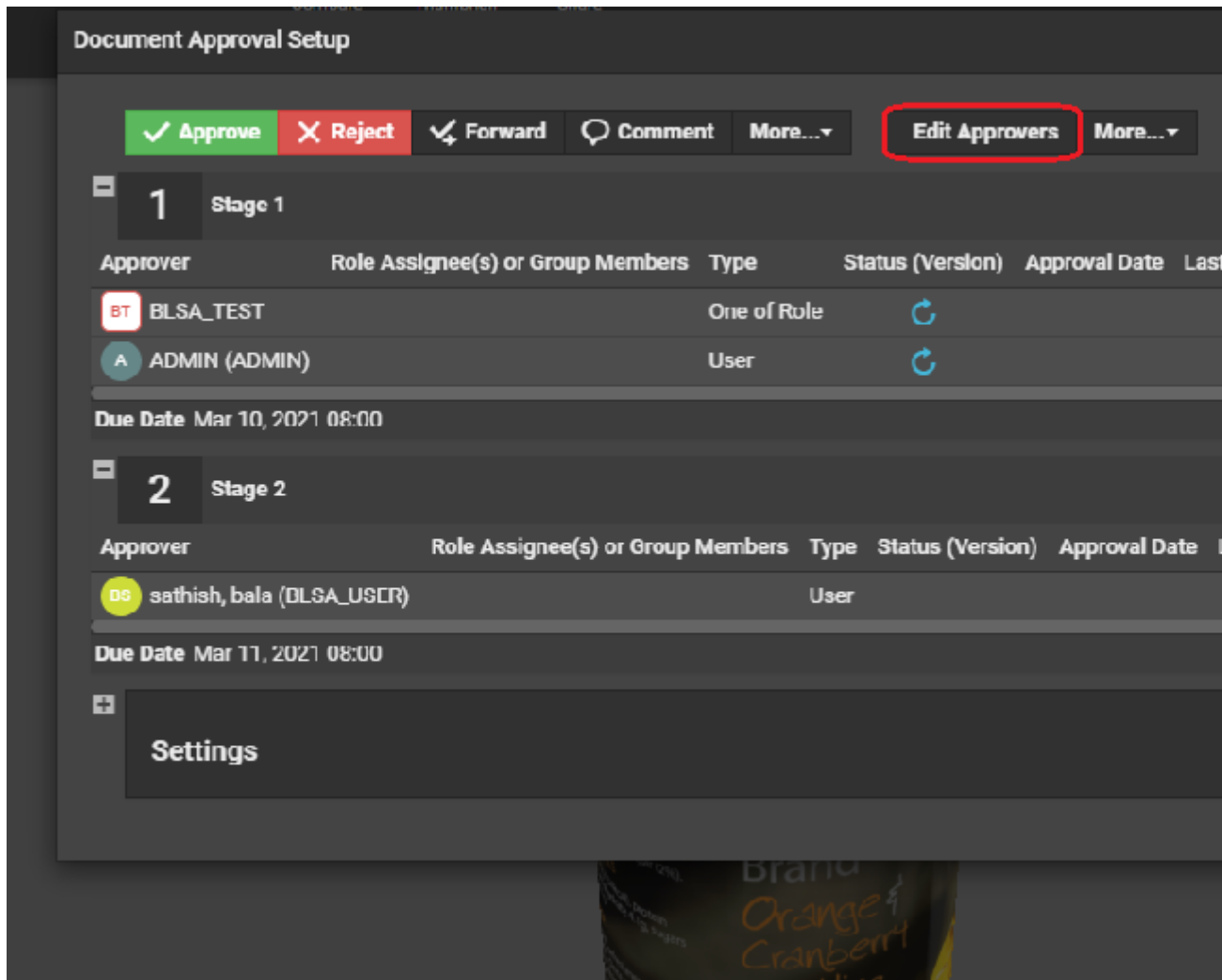
3. At the top of the document list, click:
  - to approve the documents (you cannot use conditional approval on several documents at once),
  - to reject them,
  - to comment them.



**Note:**

- Use the buttons at the top of the list and not the ones beside a document, or you will only approve / reject / comment that document.
- If you are not Project Manager for some of the documents you selected, **Forced Approve** and **Forced Reject** are not available.

4. If you are commenting the document, type your comment in the pop-up's box.  
If you are rejecting the document, you can enter a rejection reason in the pop-up's box.
5. It is possible to also Edit the approvers when the approval stage is in progress. When you click on the **Edit Document Approval Setup** , you can add a new approver or replace an existing approver based on the permission you have.



You can read about it in [detail](#).

- Depending on your choice, click **Commit Approval**, **Commit Rejection** or **Commit Comment**.

The status of the approval action is displayed, listing any documents that could not be updated.



**Note:** You can also do this from within a project (in the **Documents** tab, select the project's documents to approve or reject, then click **Approve / Reject** in the **Actions** menu).

#### 4.5.4. Sharing Documents from Viewer

WebCenter Viewer now allows documents to be shared to users who are both **Registered** and

**Unregistered** users using  **Share Viewer Link** option.

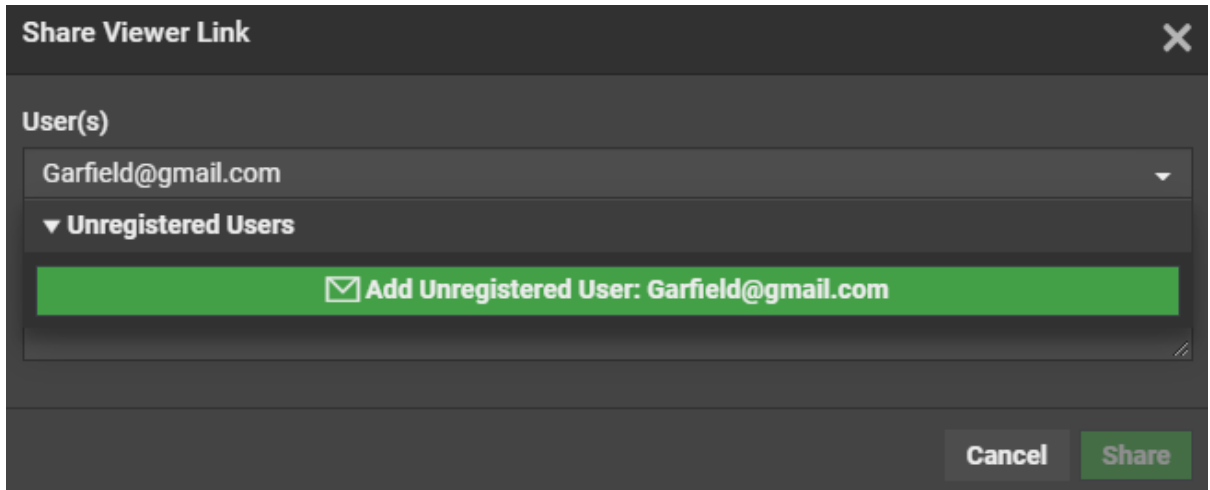
Registered users are those who are already present in the WebCenter and unregistered users are not part of WebCenter and can be provided temporary access to view the shared document.

When you click on **Share Viewer Link** option, a pop up window is opened. You can choose the users whom you may want to share the document from the drop down.

If you wish to share the document to other users, you can type in their email id in the users field and the option to **Add Unregistered User** is enabled.



**Note:** When a document is shared to an unregistered user, the email id is remembered and is available in the drop down.



You can share the link to both registered and unregistered users at the same time. When you share, an email is sent to the users with a link to the document and information about the Document name, Version number and comment.

The validity of the link shared for unregistered users is based on the token authentication.

## 4.6. Working with Page Lists

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### 4.6.1. About Page Lists

#### What is a Page List document?

Page Lists are a special type of multi-page PDF documents in WebCenter that represent imposed books or magazines. As such they are an important tool for commercial printers.

Page Lists PDFs are generated in Automation Engine from FastImpose imposition files (\*.imp), and uploaded to WebCenter from the Automation Engine production server.

If you are not using a Automation Engine production server, you can also upload Page Lists using the **Upload** feature in WebCenter. You cannot upload imposition files (\*.imp).

Page List documents have two major advantages over other multi-page PDF files:

- You can **upload either the complete document, or specific pages** only (for example, pages 6-12);
- **individual pages can be approved or rejected** in WebCenter (for example, you can approve pages 3, 5 and 7-16 of a 16-page Page List).



**Note:** A multi-page PDF file can only be approved or rejected as a whole.

### Working with Page Lists

Page List documents are **displayed as a single document** in document lists. Click the Page List name to view its pages and details in the dedicated Page List views.



**Tip:**

Only FastImpose impositions are recognized as Page Lists in WebCenter. Multi-page files uploaded from within WebCenter (except multi-page PDFs uploaded specifically as a page list), or even other Automation Engine documents will never be treated as Page Lists. Instead, they are considered regular multi-page PDF documents.

## 4.6.2. Page List Views

When you want to examine, approve or reject a Page List, you have the choice of a number of views in which to do so:

### Page List

Displays the pages in the imposition in a table.

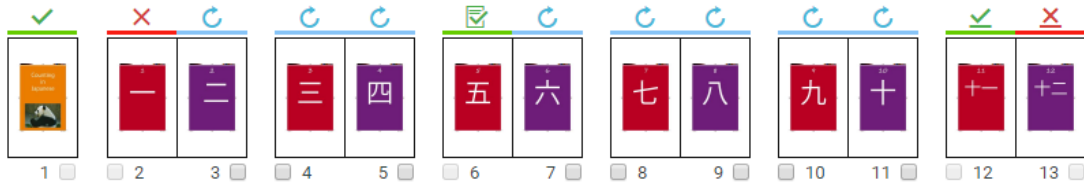
For every page, the Folio, Sheet Name, Sheet Side (for page lists uploaded from Automation Engine), Thumbnail, Page Version, List Version, and Uploaded Date are displayed.

Finally, the approval status per page is listed, and pages that have annotations are marked with a post-it icon.

Page List Information									
Document Information		Approval		Action History		Annotations		Projects	
Attributes		References		Characteristics		Discussions 1			
Page List									
<input type="checkbox"/> Approve Selected Pages <input type="checkbox"/> Reject Selected Pages <input checked="" type="checkbox"/> Force Approve Selected Pages <input type="checkbox"/> Force Reject Selected Pages <input checked="" type="checkbox"/> Approve All Pages <input type="checkbox"/> Reject All Pages <span>More...</span>									
Status	Index	View	Page Version	List Version	Uploaded Date	Approve/Reject	Annotation	Upload New Version	
✓	1		2	2	May 11, 2015 at 12:54 PM			Upload New Version	
✗	2		2	2	May 11, 2015 at 12:54 PM			Upload New Version	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3		2	2	May 11, 2015 at 12:54 PM	✓ ✗ ↻	Upload New Version	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4		2	2	May 11, 2015 at 12:54 PM	✓ ✗ ↻	Upload New Version	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5		2	2	May 11, 2015 at 12:54 PM	✓ ✗ ↻	Upload New Version	
<input checked="" type="checkbox"/>	6		2	2	May 11, 2015 at 12:54 PM			Upload New Version	

### Page Gallery

Displays the pages in the imposition in a gallery view. This gives you a quick overview of the approval status of the different pages:



- Pages topped with a blue bar and icon have not been approved or rejected yet;
- Pages topped with a green bar and icon have been approved;
- Pages topped with a green bar and icon have been approved with a condition;
- Pages topped with a red bar and icon have been rejected;
- Pages topped with a green bar and icon have been force approved;
- Pages topped with a red bar and icon have been force rejected.

**Page List Information**

Displays basic information about the Page List (number of pages, binding...). This information is editable for documents that were uploaded using the WebCenter Upload feature.

**4.6.3. Notes on Page Lists and Approval Cycles**

**Page Properties**

**Index**

Represents the sequential position of the page in the Page List.

**Folio**

Represents the “name” of the page as it is used in FastImpose.

**Page Version**

Represents the version of the individual page in the Page List.

**List Version**

Represents the version of the complete Page List. The List Version is updated every time you upload a new version of the imposition from Automation Engine.

**Index versus Folio**

For example, the page with Index 7 may have vii as its Folio, or the page with Index 1 may actually be page 3 when the cover is not part of the imposition.

**List Version versus Page Version**

When new versions of a selection of pages are uploaded, the List Version number and the Page Version number of the uploaded pages are incremented.

As a result, in very asynchronous workflows (e.g. magazine printing), you can easily have 15 Page List Versions.

Every update to the Page List increments this version number. However, most of these updates will only affect certain pages: their Page Version will be incremented.

By the time you reach Page List Version 15, many pages will be at version 3 or higher, but some will still be at Page version 3.

### Empty and blank pages

**Empty pages are ignored** for approval.

For example, if you upload a 32-page PDF file as a Page List, but change the Number of pages to 64 afterwards, creating 32 empty pages at the end of the Page List. These 32 empty pages are ignored - you cannot approve or reject them.

**Blank pages require approval.** WebCenter detects when PDF pages have been added to the imposition that have no visible content. The blank pages need to be approved just like any other pages.

### When is a Cycle Finished?

The approval cycle's status is changed to `Finished` when any one of the following conditions are met:

- all Approvers have either approved or rejected it,
- the Project Manager or an Admin has Forced Approved or Forced Rejected it.

Note that in this case, the final status is `Forced Approved` or `Forced Rejected` instead of `Finished`.

A finished approval cycle may not be stopped or started without uploading a new version of the document.




These **status rules apply to each individual page in the Page List.**



Only when **all the pages in the Page List document** have reached their `Finished` (or `Forced`) approval status, will the **Page List** get the `Finished` status.

## 4.6.4. Approve or Reject a Page List

To approve the pages in a Page List, you can choose from a number of different methods.

### Use the Viewer

1. Navigate to the Page List in a Document list, and click on its thumbnail image. The **Viewer** opens, displaying the Page List.
2. In the Viewer tool bar, click:
  -  to approve the document,
  -  to reject it,
  -  to comment on it,

-  to force approve it (if you are a Project Manager),
-  to force reject it (if you are a Project Manager).

3. In the pop-up that opens:

**Approved**  
Pages:

- Current Page
- Marked Pages (No Marked Pages)
- Selected Pages:
- All Pages
- Set Approval Condition

**Commit Approval**

- Choose to approve / reject / comment either the **Current Page**, the **Selected Pages** or **All Pages**.
- Optionally:

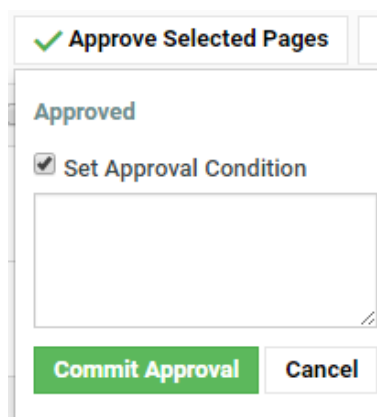
if you are...	you can...
approving or force approving the page(s)	set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set approval condition</b> and type your condition in the box.
rejecting or force rejecting the page(s)	type a reason for your rejection in the box.
commenting the page(s)	type your comment in the box.

- Enter your password if your WebCenter server requires it.
- Click the **Commit** button.

### Use the Page Gallery View

- Navigate to the Page List in a Document list and click on its name.  
The Document Details page appears.
- Select **Page Gallery** from the menu.
- Select the pages you want to approve or reject and then click **Approve Selected Pages** or **Reject Selected Pages**.  
You can also choose to **Approve All Pages** or **Reject All Pages**.
- In the pop-up that opens:





a) Optionally:

if you are...	you can...
approving or force approving the page(s)	set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set Approval Condition</b> and type your condition in the box.
rejecting or force rejecting the page(s)	type a reason for your rejection in the box.
commenting the page(s)	type your comment in the box.

b) Enter your password if your WebCenter server requires it.

c) Click the **Commit** button.

### Use the Page List View

1. Navigate to the Page List in a Document list and click on its name.

The Document Details page appears.

2. Select **Page List** from the menu.

3. Select the pages you want to approve or reject and then click **Approve Selected Pages** or **Reject Selected Pages**.

You can also choose to **Approve All Pages** or **Reject All Pages**.

4. In the pop-up that opens:

a) Optionally:

if you are...	you can...
approving or force approving the page(s)	set a condition for your approval <b>if the approval cycle allows this</b> (see <a href="#">Allow Conditional Approval or Not</a> on page 807): select <b>Set Approval Condition</b> and type your condition in the box.
rejecting or force rejecting the page(s)	type a reason for your rejection in the box.

if you are...	you can...
commenting the page(s)	type your comment in the box.

- b) Enter your password if your WebCenter server requires it.
- c) Click the **Commit** button.

## 4.6.5. Uploading and Updating Page Lists

### Requirements for Page Lists

Page Lists are supported in WebCenter from version 7.1 onwards.

To publish an imposition from Automation Engine to WebCenter, use the **Publish Imposition on WebCenter** ticket.

WebCenter and Automation Engine must be in the same LAN, or use a Tunnel and Approval client.

### Upload an Imposition as a Page List from Automation Engine

Only FastImpose impositions are recognized as Page Lists in WebCenter. Multi-page files uploaded from within WebCenter (except multi-page PDFs uploaded specifically as a page list), or even other Automation Engine documents will never be treated as Page Lists. Instead, they are considered regular multi-page PDF documents.

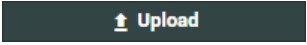
Proceed as follows to upload an imposition file as a Page List from Automation Engine to WebCenter:

1. Start the Automation Engine Pilot and log on to the production server.
2. Browse to the FastImpose imposition file (\*.imp) you want to upload, or create a new imposition in the Pilot.
3. Right-click the imposition and select **New Task > Publish Imposition on WebCenter**.  
If the **Publish Imposition on WebCenter** task does not appear in the context menu, choose **More Tickets** and select the task in the **Select Ticket** dialog.
4. Modify the settings for the **Publish Imposition on WebCenter** ticket (the first ticket in the chain) if needed.
5. Modify the settings for the **Send Book to WebCenter** ticket (the second ticket in the chain):
  - a) On the **Destination** tab, select the WebCenter **Site** from the list.
  - b) Enter the **Project**, **Folder**, **Document** and **Project Template** names. You can use SmartMarks to populate these fields.
  - c) Enter your **User Name** and **Password** for the selected WebCenter site.
  - d) Click the **Approval** tab and enable **Approval** if required.
6. Click the **Launch** button to upload the imposition to WebCenter.



**Note:** This automatically adds the imposition to the Pilot's **Pages** view at the same time.

## Upload an Imposition using the WebCenter Upload Feature

1. Either go to the project/folder you want to upload the document into and click the  button, or just click the **Upload** menu from anywhere.
2. On the **Upload** page, select the **Project** and **Folder** you will upload the document into (if you are already in the project/folder, those are filled in automatically, but you can still **Change the Destination**).
3. Select **Browse** in the **Source** list and click the **Browse...** button to open a browser dialog and select your file.
4. Select `Page List` in the **Document Type** list.
5. Type the index number of the first page in the file in the **Index of First Page** field.  
For a new document, this will typically be 1, but it might not be, if you plan on adding additional pages later, or if you are updating a selection of the pages in an existing Page List.
6. The document **Name** is automatically detected. You can still change it if needed.
7. Optionally, specify a **Description** for the document.
8. Click **Upload**.

The Page List is uploaded to WebCenter. You can still edit some properties of the Page List in the **Page Information** view (such as the number of pages, the binding edge, etc.).

## Update Pages in a Page List

You can update a specific page or range of pages in a Page List, either from Automation Engine or through the Upload feature in WebCenter.

### To Update One or More Pages from the Pilot

1. In the Automation Engine Pilot's **Imposition Gallery**, select the pages in the imposition that you want to update.
2. Right-click one of the selected pages and re-launch the exact same **Publish imposition on WebCenter Chain** ticket you used to upload the original Page List.

### To Update Individual Pages from WebCenter

1. Navigate to the folder in which the original Page List resides.
2. Click the name of the Page List to open the Document Details page for the Page List.
3. Click **Page List** to open the Page List view.
4. Click the **Upload New Version** link in the row corresponding to the page you want to update.
5. Browse for the PDF document containing the new version of the page you want to update and click **Finish** to upload the new page.

The **Index for First Page** field is already filled in, because you are only updating a single page (at the listed index).

### To Update Multiple Pages from WebCenter

1. Navigate to the folder in which the original Page List resides.
2. Click the name of the Page List to open the Document Details page for the Page List.
3. Click **Page List** to open the Page List view.
4. Click the **More Actions...** button and select **Upload New Version**.
5. Browse for the PDF document containing the new versions of the pages you want to update.
6. Provide the **Index of First Page** information: pages from the new PDF you are uploading will update the existing pages in the Page List starting at the Index you specify.

For example, if you upload a four-page PDF document to a 16-page Page List, and enter 5 as **Index of First Page**, WebCenter will update pages 5, 6, 7 and 8 in the Page List with the newly uploaded versions.

7. Click **Finish**.

## 4.7. Working with 3D Files

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With WebCenter, you can upload, view and approve 3D files. This is an option available with the **Advanced Approval** module.

This is based on Esko's **Visualizer** technology, and enables you to:

- Communicate the final packaging in all its realism to clients.
- Use WebCenter as an online medium to share 3D mockups.
- Enhance artwork and shape approval with its 3D representation.

### 4.7.1. About 3D Files

WebCenter works with **Collada** (.dae) and **Zipped Collada** (.zdae) 3D files.

Collada is an interchange file format for interactive 3D applications. It is an open standard based on XML, managed by the Khronos Group (a not-for-profit technology consortium). For more information, go to <http://www.khronos.org/collada/>.

A Zipped Collada file is a zip file containing:

- a Collada file,
- a `manifest.xml` file with a specified format,
- optionally, other assets such as backgrounds.



**Note:** WebCenter supports having a preview embedded in the archive file and extracting this automatically as a default thumbnail.

### 4.7.2. Creating and Exporting 3D Files

You can create Collada files from **Studio Visualizer** and / or **ArtiosCAD**.

## In Visualizer

Studio Visualizer can build 3D models based on the following structural design file formats:

- **ArtiosCAD \*.ard** files;
- **Studio Toolkit for Flexibles \*.bag** files for flexible packaging such as bags and wrappers;
- **Score! \*.vlm** files.
- **Collada \*.zae archives** with arbitrary 3D shapes, with printable areas defined (if supplied by Esko products). Collada archives created by non-Esko products can be used in Studio Visualizer but will not have a printable area.

1. Open the **artwork** in Illustrator, ArtPro or PackEdge.
2. Place and align the **structural design file**.
3. Then choose **Open in Visualizer** from the **File** menu.
4. Set the **Substrate** material.
5. Edit your design as necessary:
  - add process and / or spot colors,
  - add special finishes,
  - add an environment (background).
6. Export your 3D design to a **Zipped Collada (.zae)** file using the **Export 3D file for Viewing** option.

You can choose to **Create a preview image file alongside** the Collada file. This will be a .jpeg thumbnail image.



**Note:** If your model includes graphics, saving to .zae and not .dae ensures you have everything in one file (WebCenter doesn't support using multiple files for one 3D design).

See the Visualizer manual or online help for more information.

## In ArtiosCAD

Since ArtiosCAD 7.6, any 3D file can be output to Collada. The output includes the graphics, floor shading etc.



**Note:** This might require additional licensing.

1. Create your model using the ArtiosCAD 3D functionality.
2. When it is ready, go to **File > Outputs-3D > Collada** to export it.
  - Set the **Graphics resolution**.
  - To export a thumbnail with the Collada file, choose either **PNG** or **JPEG** in the **Include bitmaps as** option (you can select the **Quality** for **JPEG**).
  - Save the file as a **.ZAE file**.



**Note:** If your model includes graphics, saving to .zae and not a .dae ensures you have everything in one file (WebCenter doesn't support using multiple files for one 3D design).

See the ArtiosCAD manual for more information.

### 4.7.3. Uploading 3D Files to WebCenter


Collada (.dae) and Zipped Collada (.zae) files can be uploaded to WebCenter using the normal upload functionality available within WebCenter, via Automation Engine or through the WebCenter SDK.

WebCenter automatically recognizes Collada files as the Collada document type.

#### Working with 2D and 3D Files

We advise using the same name for related 2D and 3D documents, and putting them in the same folder.

#### Creating a Thumbnail

By default, WebCenter shows the default Collada thumbnail for Collada files: .

To add your own thumbnail:

- use the **Create a preview image file alongside** when exporting the Collada file from Visualizer (see [Creating a 3D File in Visualizer](#)).
- choose either **PNG** or **JPEG** in the **Include bitmaps as** option when exporting the Collada file from ArtiosCAD (see [Creating a 3D File in ArtiosCAD](#)).
- upload your own thumbnail in WebCenter:
  - a) in the **Document Details**, go to the **Document Information** tab,
  - b) click **Thumbnail** and upload your thumbnail image.



**Note:** The best sizes for thumbnails in WebCenter are 100x100 and 200x200 pixels.

### 4.7.4. Viewing 3D Files

Hyper realistic 3D viewing experience is now available in WebCenter. You can view 3D in Unified Viewer.

- the Java Collada Viewer
- the HTML5 Collada Viewer
- Click the thumbnail of a Collada file to open WebCenter's 3D Viewer. As a regular user, you need to have both View and Download rights to use the Collada Viewer.



Approve
  Reject
  Comment
  Force Approve
  Force Reject
 ⓘ



**Note:**

If your Collada file contains a background environment ( .env file), you will see it in the background.

WebCenter supports all the default Visualizer environments.

- The HTML5 3D Viewer launches much faster than the Java based Viewer and it works on mobile devices. You can use your mouse or touch to perform actions. Read about HTML5 3D viewing in [Viewing 3D in the HTML5 Collada Viewer](#) on page 730.
  - Makes use of 3D capabilities that are built into modern browsers (WebGL) depending on your browser.
  - Supports the same lighting, print and finishing effects as Java version and the desktop Studio application.
  - For Collada files that are written in Studio, the Viewer will show the lighting environment as configured there. For other Collada files, it will use a neutral photo studio lighting (different from the Java-based Viewer).

### 4.7.5. Using 3D file as 3D perspective

You can use any 3D file as a 3D perspective of a graphics file in the WebCenter viewer. You can also view both the graphics document and the 3D file next to each other.

To view the files in the viewer, ensure there is a document reference attribute called **CAD\_REFERENCE** in the graphics document. Follow the steps below to open a structure document.

You can use the structure document in the Structure document selector.

After selecting a 3D Document as 3D perspective, save the link using the save button next to the Structure Document Selector.



**Note:** This is only possible if the Document has the Document Reference Attribute **CAD\_REFERENCE**, in which the link is stored.

If a printable part is selected and the alignment options are saved, then the 3D widget displays the 3D shape along with the graphic file applied to the specified printable part.



**Note:** The printable part is saved in the document reference properties **CAD\_PRINTABLE\_PART** and **CAD\_PRINTABLE\_PART\_SIDE** of the **CAD\_REFERENCE** attribute that points to the 3D file.

### 4.7.6. Approving 3D Files

Collada files can be approved like any other document in WebCenter. You can approve, reject or comment a Collada file from:

- your **My Work** page,
- the project's **Documents** tab,
- the document's **Approval** tab,
- the 3D Viewer (at the bottom left of the window).

### 4.7.7. Annotating in 3D Files

When the current document is a 3D file, the 2D annotations are created relative to the view port and are shown in the annotation report. Adding an annotation is not possible during comparison of 3D models or on 3D perspectives that are linked to graphic documents. When the annotation tool is active, you

- Cannot move or rotate the 3D object. To rotate or move the 3D object, turn off the annotation tool.
- Add an annotation, the camera angle of the 3D model is linked to the 2D annotations. Selecting an annotation, will result in the 3D model rotating to the same camera angle where the annotation was added.

An annotation is only visible, when it is currently selected by the user from the widget.

You can read more on Annotations here [Annotations and the 3D Viewer Positions](#) on page 734

## 4.8. Working with ArtiosCAD Documents

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You can open your document in the ArtiosCAD application directly from the WebCenter server.





**Note:**

This is possible if:

1. the document is recognized as any of the following types :
  - Design: .ARD and other structural design formats supported by ArtiosCAD
  - Manufacturing: .MFG and other structural manufacturing formats supported by ArtiosCAD
  - 3D: .A3D
2. you have been granted rights to download the native ArtiosCAD files by the system administrator.
3. you have been given the download permission to the project folder where the document resides.
  - From the Document Search Results page, you may see the **Open in ArtiosCAD** link even when you do not have the download permission. When you attempt download, you will receive an error message.
4. [WebCenter Preferences > General Preferences > ArtiosCAD > Open ArtiosCAD documents](#) is set to either the ArtiosCAD Standard Edition or the ArtiosCAD Enterprise edition.

### 4.8.1. Canvas

The ArtiosCAD Canvas type document is a container for designing multi-part displays. These individual parts in the Canvas may differ in the board format.

The parts of a Canvas can be saved as separate design files into WebCenter and then referred in a **document reference attribute** with the name `Canvas Parts`.



**Note:** This document reference attribute is available in WebCenter by default. Read [Canvas related Attribute Categories](#) on page 421

The Canvas document will also contain the meta-data about its parts.



**Note:**

- You cannot use the Canvas documents to run a Standard.
- A canvas document cannot be used to create 3D view with aligned graphics. However, you can view the 2D model with aligned graphics in the Viewer.

#### Canvas Information Tab


The **Document Details > Canvas Information** page has four sub-tabs:

- **Geometry** tab containing:
  - Detailed design information
  - Dimensional details
  - Board and flute information,
  - Print item details
  - Design preview


- **Parts** tab displays the information regarding each part. The information displayed on this tab will depend on whether these parts are managed by WebCenter or saved to WebCenter:


Canvas Information		Document Information	Approval	Action History	Annotations	Projects	Attributes
Geometry	<b>Parts</b>	2D View	3D View (Collada)	3D Model (VRML)			
<b>Parts</b>							
Part	Document	Project			Version	Board	
Part 1	PRMA_ACAD_CANVAS1*01.ARD	PRMA_ACAD_Canvas_1			1	DECE	
Part 2	PRMA_ACAD_CANVAS1*02.ARD	PRMA_ACAD_Canvas_1			1	DECE	
Part 3	PRMA_ACAD_CANVAS1*03.ARD	PRMA_ACAD_Canvas_1			1	DECE	
Part 4	PRMA_ACAD_CANVAS1*04.ARD	PRMA_ACAD_Canvas_1			1	qi-20	

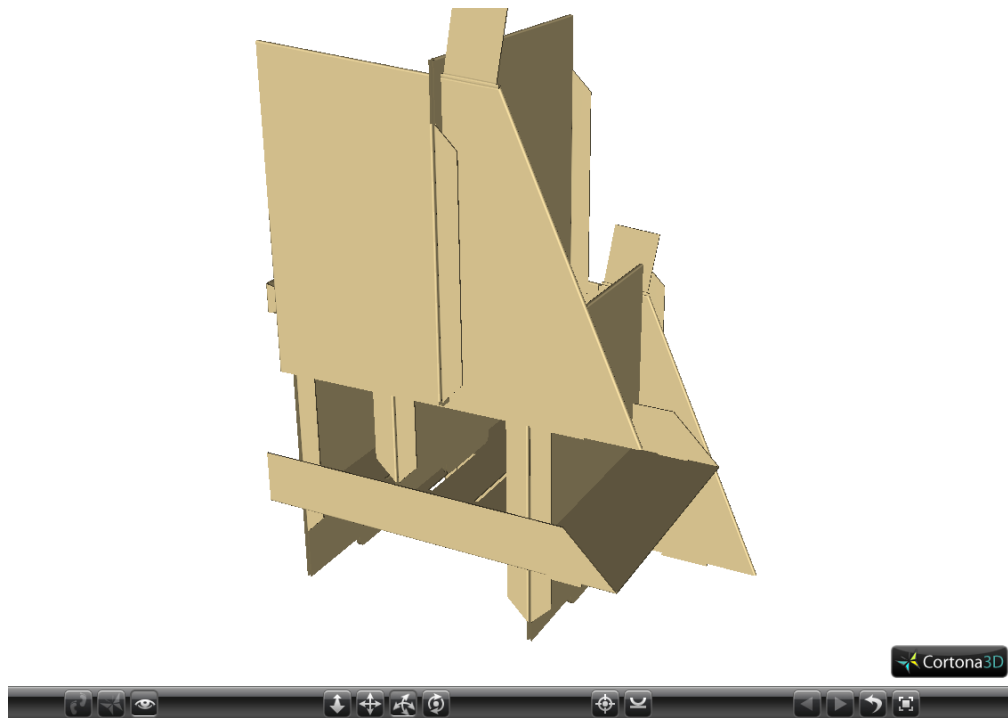
- the **Part** name as defined in ArtiosCAD
- the **Document** file name (when not managed in WebCenter) or a WebCenter document name if it is managed in WebCenter.  
If the current user has the rights to view the document, it will be displayed as a hyperlink to the referenced document's details.  
If the document is not found, you will see a warning listing the possible causes.
- the **Project** name if the document is managed (separately saved to WebCenter). This will be displayed as a hyperlink to the referenced project's details.  
If the project is not found, a warning will be shown hinting at possible causes.  
If the part is not managed in WebCenter, the Project field will be empty.
- the **Version** number for the parts managed in WebCenter.  
The number will be "0" for the documents not managed in WebCenter.
- the **Board** name
- the **Board Description** - details of the board assigned to this specific part.
- **2D View** tab shows a 2D view of the canvas file (default side)
- **3D View (Collada)** tab shows the 3D view of the document with mouse controls.

 **Note:** If 3D view cannot be created, then an error message will be generated.

- **3D Model (VRML)** tab:
  - When you click on this tab, a VRML file (extension .wrl) will open in the browser generating a 3D view.




 **Note:** The browser needs a plug-in for VRML format (e.g. Cortona) to generate the 3D view of the document. If this is absent, the browser will download the VRML file.

 **Note:** The Canvas documents should have folding angles to be able to render them in 3D. You will see an error message if this information is missing.



## 4.8.2. Opening Documents in ArtiosCAD Standard Edition / Enterprise Edition

Set your **My WebCenter > My Preferences > ArtiosCAD Preferences** as either:

- ArtiosCAD Standard Edition to download an ArtiosCAD document from the WebCenter site and open it in your ArtiosCAD desktop application.
  - ArtiosCAD Enterprise Edition to open the document in the installed ArtiosCAD Enterprise Edition
1. You may open your design / manufacturing /3D file you want to edit in ArtiosCAD desktop application from:
    - the **document details** page using the **Open in ArtiosCAD** button.
    - the **Project Details- Document Overview** page, using the open  button.
    - the **Task Execution – Documents section** page, using the open  button.
    - the **Document Search Results** page, using the open  button shown next to the document name from the list view / grid view, or when you hover over the document in card view.



2. If your preference is set as ArtiosCAD Enterprise Edition, the system will launch the ArtiosCAD Enterprise desktop application. To open documents in ArtiosCAD Enterprise edition, use the same buttons as described. Also enter your login credentials for the WebCenter server.

The document will be loaded to the ArtiosCAD Enterprise workspace in **manage document mode**. In this mode, you can publish the updated version to the same WebCenter project to which the document belonged.

## 4.9. Project Management in WebCenter

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Users designated as Project Managers in their profile have a **Projects I Manage** link on their **Projects** menu. In these projects, they have access to a number of additional features that allow them to manage the projects.

Project Managers can:

- Create projects, either blank or from a Template.
- Invite members to the project and uninvite them.
- Create project folders and add documents.
- Set Characteristics and Attributes on the project and its documents.
- Forcibly Accept or Reject documents requiring Approval.
- Set the security on the project.
- Manage Roles in their project.



**Note:** Only Project Managers who are members of the Admins group can save a project as a Template. See the Administration Guide for more information.

Whenever a project is created, an event is logged in the audit trail and can be viewed in the project history.

Basic information about the newly created project details like the **Project Name, Project Description, Project Manager**, project was created from template are all mandatorily recorded .

### 4.9.1. Creating Projects and Folders

**Project Managers** and **Project Creator** users can create new projects from a project template, or from an existing project. Project Manager users also have an option to create from zero and they can create new folders inside projects they manage.

Project Creators have to necessarily assign a project manager for the projects they create.

#### Create a Project from Zero

1. Log in as a **Project Manager** or **Project Creator**.
2. In the **Create** or **Projects** menu, click **Create Project**.
3. Choose **Start from a Blank Project** in the **Create** list.
4. Fill in the new project's **Details**.
  - a) Enter the **Name** of the new project.
  - b) If you are a **Project Manager** user, by default you are the **Project Manager** of the project you created. If you are a **Project Creator**, you can make another user or user group as the Project

Manager for this project by selecting the user name or group name from the Project Manager list.

- c) To make the project active, leave the **Status** on **Active**.



**Note:**

If you are not sure that the project will be going forward (you need somebody else to decide first), you can either:

- Make the project **Non Active** or **On Hold**,
- Make the project active (if you have the Task Management module), make the decider a project member, and assign him/her a task to confirm/authorize the project as first project task.

See [Task Management in WebCenter](#) on page 832 for more information about tasks.

- d) If desired, specify a **Customer** for the project, and that customer's **Location**.

- e) To use a custom thumbnail, click **Change** beside the default **Thumbnail**.

Select **Specify New Thumbnail** and enter the complete path and filename in the associated field or **Browse** for it. To use the default thumbnail, leave that choice selected.


- f) If desired, enter a project description in the **Description** field.

- g) To specify an optional due date, click the calendar at the end of the **Due Date** field and select the desired due date. To set the due time, click the drop-down list to the right of the calendar control.

5. To add **Documents** to the project, click **Add Item** in the **Documents** section and either:

- **Browse** to the document to add,
- **Copy** a document from another project (select the project then the document to copy).



**Tip:** Use the  icons to search for a project or document name.

You can then change the document's **Name** and add an optional **Description**.

6. Invite members to the project: select each member, role or group to invite in the **Invite members** list



**Note:** You can **Create and Invite New User** to the project from the **Invite Members** drop down list.

To remove a member, role or group, click the associated minus sign.

7. Click **Create**.

This brings you to the new project's details page.

Creating a project adds an event and this is stored in the Project History.

This event will add following information to the Project History:

- The Project/Template from which the new Project is created.
- The name.
- The Project Manager.
- The Salesperson (if there is any).
- The Customer (if there is any).

- The Location (if there is any).
- The description (if there is any).



**Note:** When a project is created from a template or an existing project, then only the changes (like deletion of attribute values or adding a new document) from the template or existing project is logged in the events.

## Create a Project from a Template

1. Log in as a **Project Manager** or **Project Creator**.
2. In the **Create** or **Projects** menu, click **Create Project**.
3. Choose **Use a Project Template** in the **Create** list.
4. Select the **Template** from which you want to create the new project.



**Tip:** To view the contents of a Template, click **Show Details**. This opens the Template in another window. Explore the contents as desired and click **Close Window** to return to the **Create Project** page.



**Note:** Depending on the template you choose, the fields you need to fill in may vary.

5. Fill in the new project's *Details* and if the project is created by a Project Creator user, then the Project Manager's name has to be filled in mandatorily.
6. If desired, add *Documents* to the project.
7. Add *Members* to the project.
8. If the template has attributes defined, fill them in the *Attributes* section.
9. Click **Create**.

This brings you to the new project's details page.

Creating a project adds an event and this is stored in the Project History.

This event will add following information to the Project History:

- The Project/Template from which the new Project is created.
- The name.
- The Project Manager.
- The Salesperson (if there is any).
- The Customer (if there is any).
- The Location (if there is any).
- The description (if there is any).



**Note:** When a project is created from a template or an existing project, then only the changes (like deletion of attribute values or adding a new document) from the template or existing project is logged in the events.



**Note:**

The project is created with the same folder structure, documents, discussions, characteristics, attributes, landing page, members, and security as in the template.

Any documents in the template are copied into the new project as new standalone documents, even if they were linked documents in the template.

The list of Approval Users is copied if it is applicable; if there are conflicts, a warning appears and you will have to configure new approval settings.

**Fill in the Project Details**

In the **Details** section of the **Create Project** page:

1. Enter the **Name** of the new project.  
If the option **Use Automatic Naming** is enabled, then the **Name** field is disabled.
2. When creating a project, you can choose another **User/Group** to be the Project Manager. Also, when you copy from an existing project, you can also copy the Project Manager.  
In such cases, you will not have visibility to the project once it is created.
3. To make the project active, leave the **Status** on **Active**.



**Note:**

If you are not sure that the project will be going forward (you need somebody else to decide first), you can either:

- make the project **Non Active** or **On Hold**,
- (if you have the Task Management module) make the project active, make the decider a project member, and assign him/her a task to confirm/authorize the project as first project task.


See [Task Management in WebCenter](#) on page 832 for more information about tasks.

4. If desired, specify a **Customer** for the project, and that customer's **Location**.
5. To use a custom thumbnail, click **Change** beside the default **Thumbnail**.  
Select **Specify New Thumbnail** and enter the complete path and filename in the associated field or **Browse** for it. To use the default thumbnail, leave that choice selected.
6. If desired, enter a project description in the **Description** field.
7. To specify an optional due date, click the calendar at the end of the **Due Date** field and select the desired due date. To set the due time, click the drop-down list to the right of the calendar control.

**Add Documents to the Project**

1. To add **Documents** to the project, click **Add Item** in the **Documents** section of the **Create Project** page and either:
  - **Browse** to the document to add,
  - **Copy** a document from another project (select the project then the document to copy).



**Tip:** Use the  icons to search for a project or document name.

- Create a document **placeholder** from a document template: select **New** in the **Source** list, select the **Document Template** to use, and fill in any attributes that may be required.



**Note:** This is only available if your Admin has defined document templates.

See [Document Templates](#) on page 171 in the Administration Guide for more information about document templates, and [Assigning Document Attributes](#) on page 626 for more information about attributes.

2. You can then change the document's **Name** and add an optional **Description**.

### Add Project Members

In the **Members** section of the **Create Project** page, you can either:

- Invite members to the project: select each member or group to invite in the **Invite members** list.  
To remove a member / group, click the associated minus sign.
- If the template / project you are copying from contains **roles**: you can assign user groups or individual users.

You can see roles the template / original project contains, and are available for assignment at project creation time, in the **Members** section.

- To assign a role to a user group:
  1. Select that user group in the **Group** list.
  2. Select who in the group will be the **User / Assignee**.



**Note:** Leave the option **Select User** if you want **any** user of the group, or **all** of the group users (depending on what was set when adding the role to the template / original project) to be **Approver / Task Assignee**.



**Note:**

If you are using filtering (the role's name is the first word of the name of the group you want to replace it with), you will only see the groups matching that filter in the **Group** list.

In the example below, the role is called *Agency*, and the list shows all groups starting with *Agency* (followed by a space).

If no group matches the filter you will see the whole list of groups.



- To assign a role to an individual user:
  1. Leave **---Select Group---** in the **Group** list.
  2. Select the individual user in the **User / Assignee** list.
  3. Make sure **Invite Group** is deselected.



**Note:** You can **Create and Invite New User** to the project from the **Invite Members** drop down list.

- To assign a role to a group with a specific user as assignee:
  1. Select a Group in the **Group** list.
  2. Select the individual user that you want to be the assignee in the **User / Assignee** list.
  3. Make sure the **Invite Group** checkbox is enabled.
- To assign several users and groups to the same role (this option may be enabled/disabled in the parent project or template):
  1. Select a user or group assignee you want to assign to the role.
  2. In the **Actions** column, click the **+** icon to add another row for this role.
  3. You can now assign the same role to multiple users and/or groups, using the **+** every time you need to add a row and using **-** icon to remove a row.

You can also assign roles later if you don't have the user information ready.

### Define Project Attributes

- If the template has attributes defined / you copied attributes from the existing project, you can still edit them (if they are **editable**) in the **Attributes** section.



**Attention:** Certain attributes can be **required**. Those have a red asterisk (\*). If the template / project you copied from contains required attributes, you cannot create the new project without filling them in.

For more information about attributes, see [Assigning Document Attributes](#) on page 626.

### Uploading documents in project creation

#### Create a Project Based on Another Project

1. Log in as a **Project Manager** or **Project Creator**.
2. In the **Create** or **Projects** menu, click **Create Project**.
3. Choose **Copy setup from an Existing Project** in the **Create** list.



**Note:** This option is not available for Project Creator users

4. Select the **Project** to copy from.



**Note:** You can only copy from projects you manage. If you are a project manager, you can also copy a project from the project details **More Actions...** menu.

5. In the **Copy setup from an Existing Project** pop-up, select what you want to copy from the old project into the new project (and deselect what you don't want to copy).

**Copy setup from an Existing Project**

- Copy Project Manager
- Copy Members
- Copy Approval Settings
- Copy Folders
  - Including Documents
  - Including Bill of Materials
- Copy Attributes
- Copy Characteristics
- Copy Tasks From Source Project ▼
- Copy Security Settings
- Copy Notifications
- Copy Discussions

Cancel
OK

For Tasks, you can choose to copy the **Tasks** from the original Template or from another Template by typing in the template name. The default setting is to copy Tasks from the Project that is being copied.

Click **OK**.

6. Fill in the new project's [Details](#).
7. If desired, add [Documents](#) to the project.
8. Add [Members](#) to the project.
9. If the template has attributes defined, fill them in the [Attributes](#) section.
10. Click **Create**.

This brings you to the new project's details page.

Creating a project adds an event and this is stored in the Project History.

This event will add following information to the Project History:

- The Project/Template from which the new Project is created.
- The name.
- The Project Manager.
- The Salesperson (if there is any).
- The Customer (if there is any).
- The Location (if there is any).
- The description (if there is any).



**Note:** When a project is created from a template or an existing project, then only the changes (like deletion of attribute values or adding a new document) from the template or existing project is logged in the events.

## Automatic Project Thumbnail Images from Documents

When a new graphics, ArtiosCAD or CHILI document is being uploaded to a Project or Template, the user can have an option to check if the document image needs to be taken as the Project Thumbnail.

If this option is checked, the Project thumbnail will be set as the document image after **checking and registering**.

You have to enable **Make project thumbnail** during the upload of documents to use this feature. You can do so by setting up a document attribute with the exact name 'Make project thumbnail', using a restricted set with values 'yes' and 'no' (to create a checkbox).

**Note:**

When a document with the **Make project thumbnail** attribute set to "yes" is moved or linked or copied to another project, that project's thumbnail will also be changed to the thumbnail of this document.



**Remember:** This attribute has no effect when the document's thumbnail is manually changed to another thumbnail.

## Notes on Thumbnail Images

When specifying a custom thumbnail, consider the following:

- WebCenter automatically scales the thumbnail as needed to two sizes depending on where it is used. The larger size is 100 x 100 pixels; the smaller, 50 x 50 pixels.
- The maximum file size of a thumbnail is 1 million bytes, whether it is custom or generated. This limit is configurable; contact Professional Services for more information.

## Create Folders in a Project

You may only create one level of folders in a project under the **Project Documents** folder.

1. Log in as a **Project Manager** or **Project Creator**.
2. Open the project you manage which will contain the new folder.
3. If it is not selected already, click **Documents** on the **Details** menu.
4. In the **Folders** column at left, click **Add Folder** in the **Actions** menu.
5. Enter the name of the new folder in the **Folder Name** field.
6. Optionally, you can:
  - Select **Workflow Folder (Advanced)** and select a workflow folder from the **Configuration** list.  
This will turn the folder into to a **Push Through Folder**. A *workflow folder* automatically copies the files uploaded into it to another folder (on the same or another server).  
Typically this other folder is a hot folder for a workflow application such as BackStage / Automation Engine.
  - Click **Specify New Thumbnail** to use a custom thumbnail for the folder. Enter the complete path and filename in the associated field, or **Browse** for it.  
To use the default thumbnail, leave that choice selected.
7. Click **Create**.

The folder is created. Project Manager can keep track of any changes made to the Project folders, by enabling the notifications for **Project Folder changed**.

## About Workflow Folders

### What is a workflow folder?

When creating a folder the Project Manager can define it as a **workflow folder**, using a push-through configuration defined by the Admin.

Any file that is uploaded into this folder will be automatically copied to a location defined in the configuration. For this reason, workflow folders are sometimes also referred to as “push-through folders”.

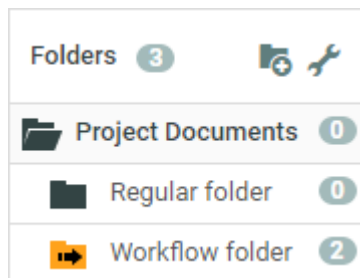
Workflow folders are particularly useful when that other location is a hot folder of a workflow system such as Automation Engine, so that the file will automatically be processed by the workflow system.





**Note:** The Configuration for workflow folders needs to be defined by an Administrator. Project Managers can then select one of the defined configurations when they create a new folder.

### Recognizing workflow folders

Workflow folders have a yellow icon with an arrow on it.



The files in a workflow folder have two extra icons:

- The first  shows whether the copy of the file was successful or not.
- The second  is a button to copy the file again to the location defined in the configuration.

### System History Logs

All Push Thorough Configuration related events like

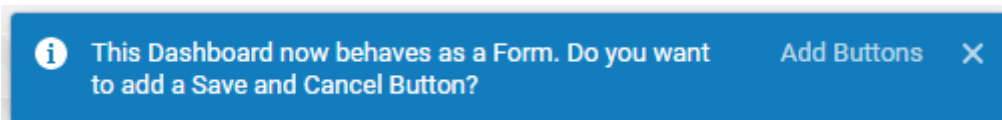
- **Push Through Configuration created**
- **Push Through Configuration deleted** and
- **Push Through Configuration changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

## Project Creation from a Dashboard

Dashboards are more interactive in order to edit the data which can then be saved or have forms where input can be added. Project creation has been incorporated to enable easier collection of information with specific action driven pages in Dashboards.

Admin users can set the Dashboard function to **Creation Form** in the Project context. Then an option is available to add a **Save** and **Cancel** button.

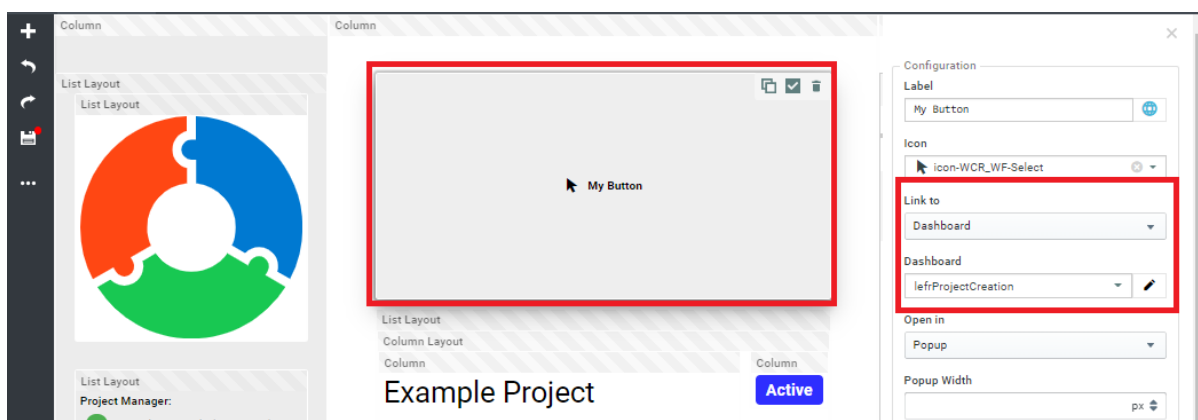


You can create customized Projects from an existing Project or a Template which are available in the dropdown. When no Project or Template is selected, a blank project is created.

**Save** and **Cancel** buttons can be formatted with various configuration parameters available for the blocks.

### Creating a Project using a Button Block

You can configure a *Button block* so that clicking the button opens a Dashboard. The Dashboard can be further configured to open a project creation form as shown in the image below.



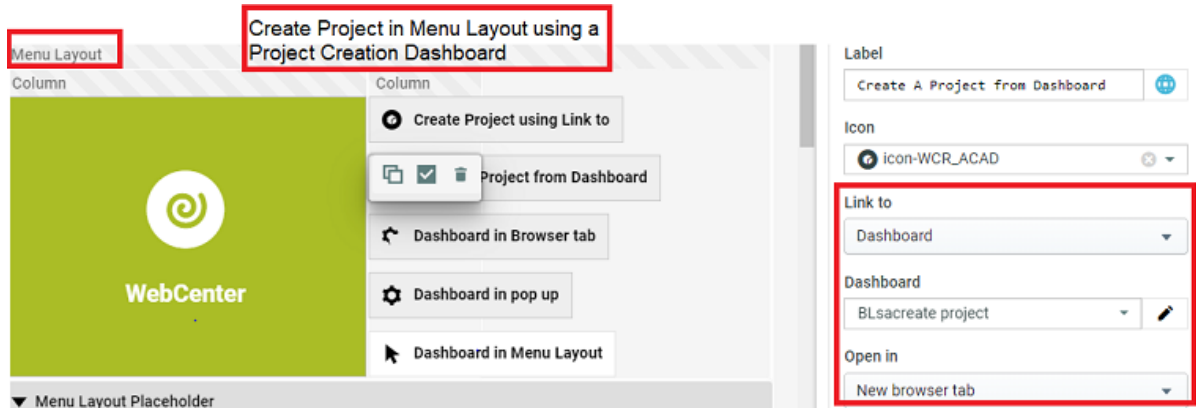
To use the Button with a Project Creation dashboard, follow the steps below.

1. Create a Dashboard with Project as **Context**.
2. Set the Dashboard Function to **Creation Form**.
3. Choose the **Project or Template** that you wish to create the Project from.
4. You can optionally choose to navigate to the new Project when it is created or open in the same browser window.
5. Choose your **Styling, Padding, Background color** options for the **Creation form**.
6. You can add the *Document Sources* from which documents can be added to the project created.
7. Now create another Dashboard with any context that you need and add a Button Block. In the configuration of the block, link it to the dashboard created earlier.
8. Save the Dashboard.

### Creating a Project using a Menu Layout

Similarly in the *Menu Layout*, you can create a Dashboard as stated above. Select the Button block in the Menu Layout (with Bottom or Top or Left option).

Below screenshot shows project created from Dashboard.




### Synchronize the Project with a Workflow Job

If the Admin has defined a workflow connection, you can create projects that automatically create a workflow job (see "Configure Workflow Connections" in the Administration Guide for more information).

The workflow jobs created will be automatically synchronized to the linked WebCenter projects when certain events occur (as defined by the Admin).

However, if the Admin has enabled this possibility, you can also synchronize the workflow job to the linked project (that you manage) whenever you need to.

- To do this, click the synchronization  icon in the project header.

### Create a Project from Automation Engine

With the **Create WebCenter Project** Automation Engine task, you can create an Automation Engine Job and a corresponding project in WebCenter at the same time.

You can also retrieve information from WebCenter (Project Template, Customer Company...) and associate it with the project you are creating, directly from Automation Engine.

This avoids double entries and duplication errors, and can be triggered from an MIS system for even more automatization.

In this task:

1. Select your **WebCenter Site** (it must be defined in the **Configure** tool).
2. In the **Site Logon** area, fill in your WebCenter **User Name** and **Password**.

You can choose to type in your password (which is then **Encrypted**) or to **Use SmartNames** that resolve into your password.



**Note:** The user you enter here must be a Project Manager in WebCenter to be able to create projects.

3. Enter the **Project Name** and **Project Description** to give the new project.



**Tip:** An interesting choice for the project name is the SmartName [JobName]. By selecting the job name as SmartName for the project you can map the jobs in Automation Engine to the projects in WebCenter.

4. In **Project Manager Username**, enter the user name of the WebCenter Project Manager that will manage the newly created project.



**Note:**

- This user must already exist in WebCenter.
- This can be the same user as the one you logged on with, or a different one.
- The user you logged on with must have **at least as much visibility** in WebCenter as the Project Manager you enter here.

5. Click the Refresh  buttons.

6. The **Project Template**, **Customer Company** and **Customer Location** fields should now contain a list of the WebCenter Project Templates / Customer Companies / Customer Locations visible to that Project Manager.

Choose the **Project Template**, **Customer Company** and **Customer Location** of your choice.

7. Click **Launch**.

## 4.9.2. Editing Projects

Project Managers can:

- edit the project's general information in the **Project Details > Project Information** page,
- add specific information to the project, like characteristics and attributes,
- update the links to documents in the Project,
- change the Project status.



**Note:** Only Administrators can save Projects as a template, so that other Projects can be created based on it. See the Administration Guide for more information.

### Add a Salesperson

Project Managers can associate a **Salesperson** with the project. This can be any user in the system, but has no specific rights in the project.

1. On the **Project Details** page, click **Project Information**.
2. Click **Salesperson**.
3. Select a salesperson and click **Finish**.
4. Click **Save**.



**Note:** The salesperson does not gain access to the project unless he/she is invited as a user, Project Manager or is part of the Admins group.

It is possible to search for all projects associated with a certain salesperson across WebCenter.



**Note:** Project Creator user can be set to a Salesperson after the project was created. This is possible only if the Admin user has enabled **Project Creator becomes Salesperson after Project Creation** option in the **Project Creation** page.

### View Project Source

Projects can be created in multiple ways, like from project template or from another project or a blank project. When the projects are created from a template or from another project, some of the project properties like the **Documents, Tasks, Attributes, Characteristics, Discussions, Notifications, Members** can be copied to the new project.

In such cases, especially **Tasks** can be copied either from the project template or from the project source.

**Project Source** is the existing project, which is used to create a new project.

**Project Template** will remain same for the existing project and any newly created project from the existing project.

**Project Template** and **Project Source** information of a project is useful for the Project Managers and Admin users to understand the origin of the tasks or documents or attributes.

#### Example

There are two projects and one template created. The name of the template is T1, the names of the projects are P1 and P2. The projects are created in following order:

- P1 is created from T1
- P2 is created from P1

Following table shows the resulting values of the Project Template / Project source field

Project / Template	Project Source	Project Template
T1	None	None
P1	T1	T1
P2	T1	P1

Whenever a project is created using an existing project, the new project created has the same **Project Template** as that of the existing project.

To view the **Project Source** of any project :

- Navigate to **Project Details** page, click **Project Information** tab.

### Specify Project Characteristics

1. Log in as a **Project Manager** or **Project Creator**.
2. Open the Project whose Characteristics you want to specify.
3. Click **Characteristics**.



4. Select the checkboxes of the desired Characteristics. The selected Characteristics will appear in the list of Characteristics. Click the + plus sign next to a Characteristic to see its children Characteristics.
5. Click **Change**. The selected Characteristics will be associated with the Project.

To **remove Characteristics from a Project**, do the same as described above, but deselect the checkboxes of the Characteristics to remove them from the list.

### Specify Project Attributes

1. Log in as a user who is a Project Manager, or as a user who has the **Change Properties** permission on the root level of the Project.
2. Open the Project whose Attributes you want to specify.
3. Click **Attributes**.
4. Choose the **Attribute Category** and click **Change**.
5. Set the values for the Attributes as desired and click **Change**.

The Attributes are assigned to the Project.

### About Exporting and Importing Attributes

To make working with other systems easier, you can export and import project Attributes by using JDF (Job Definition Format) files.

You can export the Attributes, modify them in another system, and then import their changed values back into WebCenter.



**Note:** You cannot add more Attributes to a project this way; this only lets you change the values for existing Attributes.



**Important:**

If you want to import Attributes that are not generated by another WebCenter system, you should generate a sample JDF file for the people using the other system to use as a reference, so that they format their JDF file correctly.

The important lines are the ones similar to `<eg:SmartName Name="Attribute Name" Value="Value"/>`; there must be a Value tag for each Name tag.



**Note:** Option to Import from or Export to JDF buttons are enabled only when **Allow importing from/exporting to JDF** is enabled in the WebCenter Security Preferences by the Administrator users.

### Export Project Attributes

WebCenter automatically names the exported file `<Project name>_attrs.jdf`.



**Note:** Any periods in the project name will be converted to underscores.

1. Log in as a **Project Manager** or **Project Creator**.

2. Open the project with the attributes to export.
3. Click **Attributes**.
4. Click **Export**.
5. Click **Save**, browse to the desired location, and click **Save**.

### Import Project Attributes

1. Log in as a **Project Manager** or **Project Creator**.
2. Navigate to the project with the attributes to import.
3. Click **Attributes**.
4. In the **Import from JDF file** field, enter the path and name of the file, or click **Browse** and select the JDF file.
5. Click **Import**.

The values for existing attributes are updated if necessary.



**Note:** If there are either too few or too many attributes defined in the file as compared to the project, WebCenter will mention it in a status message.

### Update a Project

If you have a document that is linked in many Projects, and upload a new version into only one Project, the links in other Projects continue to reference the prior version.

1. Open the Project to update.
2. Click Update on the Project **Actions** menu.
3. All documents in the Project are updated.

A list is shown of the updated document(s), the containing Project, the old version number, and the new version number.



**Tip:** To update more than one Project at once, get a list of the Projects, select them, and click **Update Project(s)** in the **Actions** menu.

### Project Statuses

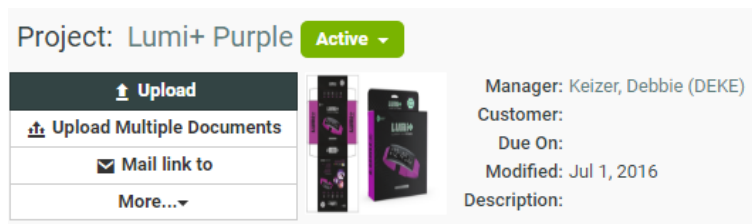
The **Project Status** feature allows you to review the current project standing. This feature can be accessed by an Admin user or a member of the Admin group, Project Managers and an User.

An administrator can add statuses in WebCenter. This works similar to task statuses (whereas the statuses are not shared). A status has a name, an icon and a type. The types are Non-active, Active, Archived and Completed. The WebCenter has the functionality to limit the actions possible in not-active and completed projects. It is most typical to add active statuses, for example: **Briefing, Design, Prepress, Printing**. An administrator can limit the statuses for a project and this can be done for every project individually.

The project status is displayed in the project header (and in available other locations such as search):



**Note:** This can be set as read only. Read more at [Prevent direct changes to Project Status](#) on page 186



The Project Manager can perform following:

- Set the Project Status.
- View Project Status.
- Search Project Status and Filter projects based on Project Status.

An administrator can limit the statuses for a project and this can be done for every project separately. Go to a project or a template as an administrator and click on the **Configure** tab. By using **Add Project Statuses** and **Remove Project statuses** (select with the check boxes and take remove from the action drop down), you can get a specific set of statuses.

An Administrator can link milestones to project statuses to see the timeline of projects in a [calendar view](#) by setting up a date/time attribute for project statuses. Each active status can have a date/time attribute linked and the same date/time attribute can be used multiple times with different offsets. The linked date indicates the intended end of the project phase, but will not trigger an automatic project status change. The actual date will depend on the related attribute value in the project context.

The administrator can decide the sequence of the statuses. This sequence is purely used for sorting. When the projects are sorted based on Project Status, this is the sequence used. The sequence is system wide.

Apart from showing the Project Status in many project overview pages (and also in the search results), the project statuses can be used in the Workflows. For example: To decide different operations or assignees depending on the current project status.



**Note:** By using the **Set Project Status** node in Workflow, you can set the status for the current project.

In the following example, let us consider five statuses allowed for this project. The Project Statuses are set as 01 - Briefing, 02 - Concept, 03 - Artwork, 04 - Prepress and 05 - Closure. The WebCenter has many more statuses, but only these statuses are allowed for this project. The statuses are in this sequence in the entire system.



**Note:** You can only decide per project whether you can have these statuses, but you cannot change the sequence of the statuses per project.


Project: Lumi+ Purple **03 - Artwork (In Progress)**

**Upload**

Upload Multiple Documents

Mail link to

More...



Manager: Keizer, Debbie (DEKE)

Customer:

Due On:

Modified: Jul 1, 2016

Description:

Documents 1 Bill Of Materials 1 Tasks 1 Discussions 1 Characteristics Attributes Project Information Approval Notifications **Configure** More...

Workflow Connection Document Templates Project Creation Document Types Document Creation **Project Statuses**

**+ Add Project Statuses** Remove

Name	Active	Color	Icon
01 - Briefing (Complete)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > Closure
02 - Concept (In Progress)	Active	Esko Green	Briefing > <b>Concept</b> > Artwork > Prepress > Closure
03 - Artwork (In Progress)	Active	Esko Green	Briefing > Concept > <b>Artwork</b> > Prepress > Closure
04 - Prepress (In Progress)	Active	Esko Green	Briefing > Concept > Artwork > <b>Prepress</b> > Closure
05 - Closure (In Progress)	Active	Esko Green	Briefing > Concept > Artwork > Prepress > <b>Closure</b>

A new Project Status type has been introduced called **Archived**. You can set this status based on the stage of the project. Archive Project status is visible to users based on the setting specified by the Administrator in the **Security Preference**.

Read more on Project status as Archived [here](#).

On archiving the Project, the project is excluded in the Project list and is not shown in the **My Projects** or **Project I Manage** menu items. The Project as well as the Tasks and Documents within the project does not show up in **Search Results** or in **My Work** page.

Trying to access the Project with an URL from a notification for an archived project gives a permission denied message.

### Change the Project Status

A project can have different statuses. For example:

- **Active**
- **Non Active**
- **Completed**
- **Archived**

In addition to the standard statuses, custom statuses may have been defined by the system administrator. A project or template can have its own specific set of available project statuses. Every project requires at least one active status.

The project manager can set the project status from the project details header, or in the **Status** list on the **Project Information** page.

When searching, you can search for all projects, or projects that have a specific status like Active, Archived, Not Active, or Completed. It is also possible to search for All Active, All Not Active or All Completed projects or All Archived, and this type of search would include different (custom) statuses of the same type.

### Displaying a Project Status

The Project Status can be viewed by an Administrator, Project Manager and a Project Member.

The status of a WebCenter project is displayed in following ways:

- The status is displayed in the project header of each page of the project.
- The status is displayed in the columns of the project overview pages (Project I am Invited to, Favorite Projects and Projects I Manage).
- The status is displayed in project search results if this column is requested to appear in the search result.

If an icon is available, the Project Status is displayed as an icon with its status name. If no icon is available, the project status is displayed as a name only. If the option **hide thumbnails** is active, only the status name is shown. The icon is displayed in true size.

### Customizing a Project Status

An Administrator can set allowed statuses for Templates or for Projects. By doing this an Administrator can limit the number of Project Statuses to be used for a specific project. When adding a new project status to the system, this status will be also added to all projects and templates. When a project is created from a template or from another project, it inherits the allowed statuses from its source. This happens only once and does not happen when the template changes later.

1. Log in to WebCenter as an Admin user.
2. Click the **Admin > Project Management** and select **Projects** or **Templates**.
3. Click the required Project or Template link from the list.
4. Click the **Configure > Project Statuses**. This displays a table with the current allowed statuses for this Template or Project.
5. Select the required Project Status from the list and then click the **Add Project Statuses** link.



**Note:** By default a blank Project will get the list of all statuses as allowed statuses.

6. Click the **Save** button to make changes.

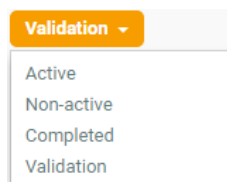


**Note:** The Project Status cannot be re-ordered here, the order is inherited from the system order.

You can remove allowed statuses for a template or project by selecting the status and select **Remove** from the **Actions** menu.

### Set a Project Status using the User Interface

An Administrator or a Project Manager can set the Project Status for the current project using WebCenter UI. A Project Status is changed by selecting a new project status from the status drop down list in the header of the project pages. The drop down only contains the allowed statuses.



### Set a Project Status when creating a Project

An Administrator or a Program Manger can set the Project Status while creating a new Project. When creating a new project through the WebCenter User Interface, there will be a drop-down allowing to set the project’s initial status. The drop-down will default to the first Active status.



**Note:** The Completed statuses are not shown because you cannot create a Project in a completed status. In case the Project is created from a Template (or a copy of another Project) it may be possible that the Project Status field is hidden. If so, the newly created Project will get the first Active status.

### Searching based on a Project Status

You can search for projects based on their Project Status. Choose **Search** from the menu bar and select Project or Tasks and Approvals. On the (advanced) Project Search page and the Task Search page, the list box will contain the list of all the Project Statuses.

In addition to all individual project statuses, the list also contains the following:

- Show All (default): show all projects (or tasks of all projects).
- Show All Active: show only projects or tasks of projects with an active status.
- Show All Not Active: show only projects or tasks of projects with a non-active status.
- Show All Completed.

The screenshot shows a search form with the following fields and a dropdown menu:

- Project Name:
- Description:
- Project Status: **Show All** (dropdown menu is open)
- Created:
- Modified:
- Due:
- Customer/Location:
- Salesperson:
- Project Manager:
- Manager's Location:
- Add Role:
- Attributes...:

The dropdown menu for Project Status contains the following options:

- Show All
- Show All Active
- Show All Not Active
- Show All Completed
- Non-active
- Active
- Concept Art (at risk)
- Briefing (at risk)
- Briefing (on track)
- Concept Art (on track)
- Lancement
- PAO Contrôle
- Erreur Contrôle
- En attente Lancement
- PAO Contrôle OK
- PitStop oK
- PitStop Avertissement
- Pitstop Erreur
- En cours de traitement
- Nouvelle Soumission

You can also search on **Project Status Started**, **Project Status Due**, **Project Status Completed**, **Project Status Duration**, and **Project Status Time Left** in the **Project Search** page.

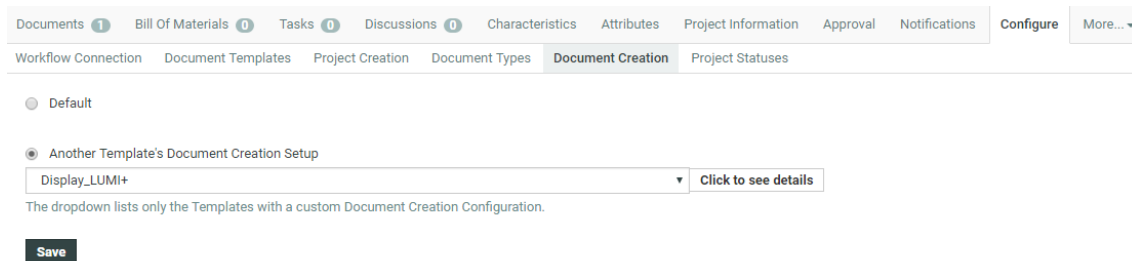
### Filtering based on Project Status

In **Favorite Projects**, **Projects I Manage**, and in **Projects I am Invited to**, you can filter on all Project Statuses individually. You can also use the filters to look for a combination of statuses: Show All, Show All Active, Show All Not Active, Show All Completed.

### Document creation settings in a project

In a project, go to the **Configure > Document Creation** to view the template from which the document upload configuration is taken.

To change this, select the template from the drop down list. You will see a list of templates with a custom document creation configuration. This will update the project document creation settings with the selected template's settings.



## 4.9.3. Managing Project Members and Permissions

Project Managers are responsible for managing who gets access to their Projects: they can add members to a Project, remove members from a Project, and set their permissions.

### Roles

**Roles** are created at a global level which the Project Managers (or the selected Project Managers) can use in individual projects and templates. You can invite these **Roles** just like **Users** and **Groups**.

**Roles** are effective after real members (**Groups** or/and **Users**) are assigned to each of the **Roles**. A project Role assignee will be treated like a standard project member. Once you assign the **Role** to a project, these take over the role's security setup, approval setup and task assignments.

Multiple assignments of **Roles** are possible. For example, if you have a "Designer" **Role**, you can invite this Role to all the Projects that require a designer either after creating a Project or via the Project Template with assigned Roles.



**Note:** You need administrator rights to create Roles. The visibility of the Roles can also be determined by the administrators.

Read more about Roles in the WebCenter Administration Guide in [Roles](#) on page 310.

### Role Assignments in a Project

The Project Manager and all the Members of a project can view all existing Role assignments in a project in the **Project Members** page.



**Note:** You can filter on the **Users, Roles** and **Groups** in the **Members** tab. Alternatively you can search using the Role name in the field.

Members 3

Groups
  Roles
  Users
 Company

Name

Members in Project	Role Assignment	
<b>Users</b>		
<input type="checkbox"/> Piro, Pieter-Jan (RJPRI)	PRINTER	Change Permissions
<b>Roles</b>		
<input type="checkbox"/> AGENCY		Change Permissions
<input type="checkbox"/> DESIGNER		Change Permissions
<input type="checkbox"/> PRINTER		Change Permissions
<b>Groups</b>		
<input type="checkbox"/> AGENCY GHENT	AGENCY	Change Permissions
<input type="checkbox"/> DESIGNER GENT	DESIGNER [ Assignee: Keizer, Debbie (DEKE) ]	Change Permissions

Role members are displayed in the list as regular members under the **Roles** project member type section.

You can see the Roles assigned to the Users and Groups in the **Role Assignment** column for user and group project members.



**Note:** When assigning users to a Role, the drop down also shows the deactivated users that you can reactivate while assigning the role. Admin users can activate any users whereas Project Manager and other users with Create User rights can only activate the users they created.

If a User is specified from the Group for a particular Role, this information is displayed next to the Role reference in the **Role Assignment** column as **[Assignee: USERNAME]**.

### Managing Roles in a Project

If a project has at least one role among its members its Project Manager can access the **Manage Roles** page to define role assignment within the project.

1. Log in as a user who is a Project Manager.
2. Open the project for which you want to manage the roles.
3. Click the **Members** tab. A list of the current members is displayed.
4. Click **Manage Roles** link in the column header.



**Manage Roles**

Change Cancel

For each Role, first select the Group to be assigned or leave it on 'Select Group' to specify a User Assignee (use the second list for that). Use Invite Group checkbox to specify a Group User Member Assignee when assigning to a Group.

Role	Group	User / Assignee	Invite Group	Actions
_REQUESTOR	Please select or start typing...	Jensen, Kim (KSJ)	<input type="checkbox"/>	⊖ ⊕
AGENCY	Please select or start typing...	skva (SKVA)	<input type="checkbox"/>	⊖ ⊕
AGENT	Please select or start typing...	Beckner, Briann (BIBE)	<input type="checkbox"/>	⊖ ⊕
APM	Please select or start typing...	Please select or start typing...	<input type="checkbox"/>	⊖ ⊕
APPROVER(S)	Please select or start typing...	Please select or start typing...	<input type="checkbox"/>	⊖ ⊕

Change Cancel

### Removing a Role Assignment

Each Role assignment is represented as a separate project member on the **Members** page. It can be deleted from the project by uninviting it as in the case of removing a project member.

You can also remove the existing role assignments from the **Manage Roles** page.

### Removing a Role from a Project

You can remove a Role from a project in the same way as removing a User or Group. By deleting the entry for the User or Group with the Role combination, you can remove the Roles



**Note:** When you have Roles assigned to Users or Groups, you have to delete the assignments (assigned regular members) before being able to uninvite the Roles from the project.

1. Login as a Project Manger.
2. Open the Project from which you want to remove Roles.
3. Click **Members**.  
A list of the current members is shown. If desired, use the filter to refine the list.
4. Select the Roles which need to be uninvited from the Project. Select the User or Group entries assigned to these Roles to unassign them from this role, if the Roles are already assigned.
5. Click **Remove** from the **Actions** in the header.
6. Click **OK** to confirm the removal. The selected Role(s) and its assignments will be removed from the Project.

### Using Roles in Approval Setup

You can use Project Roles in approval directly as an **Approval master** and/or as an **Approver**. When adding a Role to an Approval setup as an approver the user doing so has to choose between two options for the **Type**:

- **One of Role:** Only one of the role assignees needs to approve on behalf of the Role. This is the default setting.



**Tip:**

It is possible to change Role assignments after starting the Approval cycle if you select **One of Role** option. Use **One of Role** if there is only one role assignee.

- **All of role – One per Group:** All of the User and Group Role assignees will replace the Role as Approvers. When you choose this, for each Group, its representative Role assignee will become the approver on behalf of the whole group.
- **All of Role:** When you select this, all the User and Group role assignees will replace the role as Approvers. In this case all the members of the Role-Groups will become the approvers.

Project Approval Setup

Approval setup has changed since last Save

Due Date:  ⓘ

Approval Master:  ⓘ

E-mail Notifications:

Convert to Staged Approval

--- Add Approver ---

Approver	Type
DESIGNER	All of Role - One per Group

Allow conditional Approval

When one User rejects:  ⓘ

Require review state on all annotations:  ⓘ



**Note:** You cannot start an Approval cycle with unassigned Roles in the project. When the approval cycle starts, all the Role- approvers are replaced as their assignees and the Roles will no longer be visible in the **Approval Setup**.

If a Role is set as the Approval master, all the Role-assignees(Users and members of the Group) become the real Approval masters.

### Changing Role Assignments

From WebCenter 14 onwards, you can easily change Role assignments within a Project.

1. Go to **Project > Members**. Click on **Manage Roles** to get to the Role Management page. You can see the list of **Roles** associated with the Project. You may also access this page from **Project Creation** page.

In the **Manage Roles** page, you can see the existing Role assignments. You can change or remove the existing Role assignments from here.

2. You can :
  - add a Group to the Role
  - create a new assignment for the existing Roles. Use the **User/Assignee** dropdown to choose another User as the new Role assignee.
  - add /delete members from the same Role. Use the **+** and **-** controls respectively.

When an existing Role Assignment is changed, all the Role dependent Task and Approval assignments will get transferred to the new Assignee. This transfer of assignments only happens if the current Assignee loses access to the Project by getting unassigned from the Role.

In situations where a User or a Group is only invited to the Project via a Role Assignment, a Role reassignment will result in that user's /group's removal from the project. Approval and Task related dependencies are checked to prevent leaving the Project workflow in an inconsistent or blocked state.

### Delegating Roles

Go to the **Manage Roles** page. If you have been given permissions to assign Members of a Role or to change Role assignments, it will be displayed.

If you do not have the permissions to manage any roles, a message will indicate this.

### Add Members to a Project

Users and Groups need to be added to a project before they can access and use it.

1. Log in as a **Project Manager** or **Project Creator**.
2. Open the project to which you want to invite members.
3. Click **Members**.

A list of the current members is shown.

4. Click **Add Members** in the column header.
5. **Add Project Members** window is opened, where you can select and add new member to the project from the **New Project Members** drop down.
6. Select the role for the newly added user from the **Assign to Role** and click **Continue**.



**Note:** You can **Create and Invite New User** to the project from the **New Project Members** tab from the drop down.

7. Set the project permissions as desired. These permissions apply to all members being added in this step. Then click **Finish**.

A successful status message appears along with a list of suggested subsequent tasks.



**Note:**

If the project already has any number of roles among its members a drop-down list containing these roles is displayed at the top of the 'New Member Selection' step of the 'Add Member to Project' wizard.

By selecting a project role while specifying users/groups to be invited to the project the project manager can at the same time assign the desired new members to the selected roles.

The **Set Project Security for New Members** step fills up the security matrix with the original setup of the selected role.

Take into account that you cannot assign a role to another role in a project – any role objects selected from the list of the desired new project members will be disregarded (they won't even be invited to the project) if a 'role assignment' is specified using the appropriate drop-down list while picking up new project members.

By introducing roles than can be assigned to multiple user or group members it is now possible to have a same user or group member invited into the project via different role assignments (i.e. Joe Designer can be invited into a project both as assigned to DESIGNERS role and independently without any role assignment). Every such combination of a member and its assignment is considered (and presented) as a separate project member.

### Remove Project Members



**Note:** You may only remove Project members who are not Approvers in an active Approval Cycle.

1. Log in as a **Project Manager** or **Project Creator**.
2. Open the Project from which you want to remove members.
3. Click **Members**.

A list of the current members is shown. If desired, use the filter to refine the list.

4. Select the users, groups and roles to uninvite from the Project. In case you want to unassign a user or group from a role, select the specific entry for this combination.
5. Click **Remove** in the actions menu.
6. Click **OK** to confirm the removal.

The member(s) are removed from the Project.



**Note:** Project Manager can enable the **Remove Project Members** notifications to ensure an event is saved in project history and also to notify involved people or other members of the project.

### User, Group and Role Permissions in a Project

When a user is invited to a project several times (as an individual user through the **Add Members** function, as part of a Group and/or as part of a Role), his/her permissions on the project are calculated as follows:

- As a general rule, all permissions are added so that the user has the most permissions. For example:
  1. The user is invited to the project with the **View** and **Download** permissions.

2. He is added to a Role that has the **Add** permission on this project.
  3. Then the user will have the **View, Download** and **Add** permissions on this project.
- Exception 1: when a user is already invited directly (as an individual user) to a project, re-inviting him/her through a Group doesn't change his/her permissions.
  - Exception 2: when a user is only invited to a project through a Role or Group, you can change his/her permissions when re-inviting him/her as an individual user. This allows you to either restrict permissions for a specific user, or give him/her more access.



**Note:**

In this case, when inviting the user individually, his/her existing Group or Role permissions for the project will be suggested, and you will see a warning explaining that changing the user's permissions at that point may interfere with his/her ability to perform project tasks.

For example if the user has a "Designer" role, and you remove her **Add** permission, she won't be able to upload designs to the project!

#### 4.9.4. ArtiosCAD Default Projects

You may see WebCenter projects with names starting with `ACadDefaults_`.

**Do not modify** these projects as they are automatically created by ArtiosCAD (and Cad-X) to store defaults.

They are named with the following patterns:

- `ACadDefaults_<version>_<language-code>_Shared`, where `<version>` can be for example `12.0` and `<language_code>` `en`.

These projects are created when you run the ArtiosCAD Defaults Installer. ArtiosCAD users should have View and Download rights on these projects.

Do not delete these projects as this would take away some CAD functionality!

However, if you want to install new defaults, or in case the defaults installation was interrupted, you will have to delete the corresponding `ACadDefaults_` project before reinstalling the defaults (which will create a new `ACadDefaults_` project automatically in WebCenter).

- `ACadDefaults_<version>_<language-code>_<login_name>`, where `<login_name>` is the login name of an ArtiosCAD Enterprise (and WebCenter) user.

These projects are created when a WebCenter user logs into ArtiosCAD and defines defaults to work with. ArtiosCAD will update them automatically if that user changes his/her preferences (in ArtiosCAD).

#### 4.9.5. Defining Approval Settings

##### Document, Folder and Project Approval Settings

You can define approval settings at the document, folder or project level. You can also define approval settings on a number of documents in a folder or project.



**Note:** Defining approval settings for a project (or folder) does not mean the project (or folder) itself is being approved. Rather, it means that users adding documents to the project can use these pre-defined settings to save time and reduce the chance for error.

When you want to setup an approval cycle for a document, you can:

- define document-level approval settings, that will only be used for that document (**Setup Approval** or **Setup Staged Approval**),
- load the enclosing folder's approval settings, if the document is in a folder that has approval settings defined (**Load Folder Approval Setup**),
- load the project's approval settings, if it has approval settings defined (**Load Project Approval Setup**),
- use the default approval settings for that document (**Start Default Approval Cycle**). Those are: the enclosing folder's approval settings (if the document is in a folder with approval settings), or otherwise the project's approval settings (if they are defined).

### Exceptions

- URL documents may not have approval cycles.
- An approval cycle may not be started on documents in Templates.
- An approval cycle may not be started on linked documents.

### Permissions Needed

- You need the **Change Approval** permission to create or edit an approval setup.
- You need the **Start / Stop Approval** permission to start or stop approval cycles. This is the same as the **Lock / Update** permission.

The project manager and the administrator can always define / edit the approval settings (at the project, folder and document level).

For more information about permissions, see [Project and Document Security](#) on page 822.

## Simple Approval and Staged Approval

### What is Simple Approval?

When a user or a number of users need to approve your document(s) in no particular order, you can use simple approval.

All approvers are notified at the same time and get the same due date (if a due date is defined).

### What is Staged Approval?

When your document(s) need(s) to be approved by several people or groups of people, in a sequential order, you can use staged approval.

The staged approval cycle works with approval **stages**, and each stage only starts when the previous stage is completed.

This allows you to be as close as possible to your company's real life approval process, while taking advantage of WebCenter's automating and tracking capabilities.

For example, if a document needs to be approved by the marketing, finance, and legal departments, you can use three approval stages.

- In the first stage one or several people from the marketing department can be asked to approve the document.

- In the second stage the finance department can approve or reject the document,
- In the final stage the document is sent to the legal department for approval.

### Setting Up an Approval Cycle

WebCenter enables you to define a number of approval settings like who can approve the document? , when ( due date)? and what happens if the document is rejected? and so on to match your real-life business process as closely as possible.







**Note:**

You need the **Change Approval** permission to create or edit an approval setup.

To get to the simple approval setup page (for a project, a folder or a document):

1. Go to the **Approval** tab:

For...	click...
<b>a project</b>	<p>... the project page's <b>Approval</b> tab.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Tip:</b> If your project has (sub)folders, go to the project page's <b>Documents</b> tab first, and click the top-level folder at left (called <b>Project Documents</b>).  This ensures you have selected the project, and not one of its (sub)folders.</p> </div>
<b>a folder</b>	<p>... the folder you want to define approval settings for on the project page's <b>Documents</b> tab. Then click the <b>Approval</b> tab.</p>
<b>a document</b>	<p>... the Document Details page's <b>Approval</b> tab.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> You can also get to the <b>Approval</b> tab by:</p> <ul style="list-style-type: none"> <li>• clicking <b>Setup document approval</b> right after uploading the document to the project,</li> <li>• clicking the <b>Setup Approval Cycle</b> link corresponding to the document on the project's <b>Documents</b> tab.</li> </ul> </div>
<b>several documents</b>	<p>... <b>Actions &gt; Setup Approval Cycle</b> after selecting the documents in the project or folder.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> This will start the approval setup from zero, even if some of the documents selected already have an approval setup.</p> </div>

2. Click **Setup Approval**.  
You will see the **Approval Setup** page where you can configure a simple or staged approval.
3. Define **Settings** such as the [due date](#), [approval policy for the new version](#), [approval master](#) and [notifications](#).
4. Click on the  **Show Stage Configuration Details** to set up [conditional approval](#), [document rejection policy](#) and [annotation review requirements](#).  
To set up a staged approval, you need to [add an approval stage](#) and specify stage specific [configuration](#) and approvers.
5. [Add Approvers](#) on page 810
6. [Save](#).




**Note:**

- You can only set up an approval cycle for a project/folder/document that does not already have a started approval cycle.

**Add an Approval Stage**

Your approval cycle already has one approval stage by default.

1. Define **Settings** such as the [due date](#), [approval policy for the new version](#), [approval master](#) and [notifications](#).
2. Click **Add Stage**. Give the stage a name. The names are set by default as **Stage 1**, **Stage 2**, etc.  
Users with change approval permissions, can change the stage name by changing the text in the edit field.
3. Click on the  **Show Stage Configuration Details** and:
  - a) Decide to **Allow conditional approval** or not (see [Allow Conditional Approval or Not](#) on page 807).
  - b)
  - c) Define what to do **when one user rejects** the document (see [Define How to Handle Document Rejection](#)).
  - d) Define [annotation review requirements](#).
4. Add **approvers** to the stage (see [Add Approvers](#) on page 810).
5. Click **Add Stage** to add another stage.



**Note:** This adds a stage after the last stage. To add a stage before the current stage, click **Insert Stage** above the current stage instead.

6. Repeat steps 2 to 4 for each stage.
7. If necessary, you can drag a stage up or down to reorganize your stages.

To remove a stage, click the minus button in front of it.

**Approval Cycle Settings**

WebCenter allows you to define a number of approval settings (who is the master approver? when? what happens when a new version is uploaded? who should be notified? etc.)

To define these, use the **Settings** section in the Approval Setup page.



### Set the Approval Due Date

For a simple approval, you can set a single due date, which is the same for all approvers. Choose how to define the **Due Date** in **Settings**:

- Choose **No Due Date** if you do not need a due date for your approval cycle.



**Note:** Approval cycles tend to take longer when they don't have a due date.

- Choose **Fixed Due Dates** if you want to give a fixed due date to your approval cycle.

Choose a due date from the calendar, or type it using the one of the following formats: 2 May, 2010, 5/2/2010 or 5/2, 2010.

Then choose a due hour from the list.

When there are multiple stages involved, then the **Due Date Calculation** can be done in multiple ways. Read more about [Due Date Calculation](#) on page 805 here.

- Choose **Lead Time** to define how much time the approval cycle should take (as a maximum).

Define the **Lead Time** in **Days** and / or **Hours**. It is added to the date the cycle starts, to define the cycle's due date. For example if the cycle starts on May 2nd and has a 2 days lead time, it is due to be completed on May 4th.



**Attention:** WebCenter only takes week days into account. So if you start the cycle on a Friday with a 3 day lead time, it will be due the next Wednesday and not the next Monday. By default, Saturday and Sunday is considered as weekend. However, it is possible to switch the weekend days to Friday and Saturday. The due date calculation will ensure that the due date will always be on a weekday.

- Choose **Lead Time with Final Due Date** to give your approvers a lead time and give a final due date for the approval cycle.

If the document has to be re-uploaded and re-approved, it will be given the same lead time again. The final version of the document has to be approved by the final due date. [Link your Approval Due Date to a Date/ Time Attribute](#) on page 803

### Link your Approval Due Date to a Date/ Time Attribute

WebCenter enables you to define Project (or Document) Statuses using **Attributes (Date-Time attribute)**. You can link your approval due dates to these Project or Document Milestones, if you have the milestones specified.

If your Project's Attribute Category contains **Date/Time Attributes**, you can choose your approval due dates based on them. You can use these Attributes in **Project/Folder/Document** approvals. The setting also allows you to specify an offset value along with the attribute value. For example. "Final Approval Date" - 2 days.

Date/ time Attributes can be used as the final approval date or as stage approval dates. If you change the attribute value, the linked approval due dates are updated including that of any ongoing approval cycles. A due date change will trigger a notification to the approvers, based on Notifications chosen.

1. In the **settings** section, choose the **Due Date** as either of the following options:
  - **No Due Date**
  - **Fixed Due Date**

- **Lead Times**
  - **Lead Time with Final Due Date**
2. If you select **Fixed Due Date**, you can specify the Due Date for each approval stage separately. You can specify:
- a **Specific Date**. In this option, you can select a date from the calendar.
  - or a **Date in Project**. This option lists the Date/Time Attributes, from which you can select. You can specify an offset period in days and/ or hours. The offset is added or subtracted from the Attribute value.

When you save, your approval due date is calculated using the date value given in the attribute and the specified offset. See the example below:

Due Date can also be calculated for all the stages at once if **Specific Due Date** is chosen. Read more [Due Date Calculation](#) on page 805

3. If you selected **Lead Time with Final Due Date**, you can select the Date /Time attribute +/- **Offset** in the **Final Due Date** drop down. The options are exactly the same as above.



**Note:**

- If you change your Approval Due Dates, the Milestones do not get updated.
- The Due Date calculations use only working days.
- if you change the attribute value after the completion of the stage, it has no impact on the Due Date of the completed stage.

### Due Date Calculation

You can calculate the due dates for the different stages using the **Due Date Calculation** option. Any calculation done on this page is applicable for all the stages.




#### Due Date Calculation

#### Calculate New Due Dates




Give Each Stage  Days  Hours

Shift Due Dates with  Days  Hours




Shift Due Dates to have Latest on




   

Shift Due Dates to have First on

Distribute Due Dates Evenly

From     

To     

- **Give Each Stage \_\_\_ Days and \_\_\_ Hours:** Specify the exact number of days and hours for each stage in the approval cycle
- **Shift Due Date with \_\_\_ Days and \_\_\_ Hours:** Shift the due dates specified as fixed or as a Date/ Time attribute to the given number of days and hours
- **Shift Due Dates to have Latest on:** You can shift the due dates specified as fixed or as a Date/ Time attribute to not exceed the number of days and hours
- **Shift Due Date to have First on:** You can shift the due dates specified as fixed or as a Date/ Time attribute to have first on the number of days and hours
- **Distribute Due Dates Evenly** You can distribute the Due dates equally amongst all the stages by choosing this option

### Define How to Handle a New Document Version

When a document's approval cycle is started, and someone uploads a new version of that document, the approval cycle may stop or restarted based on the option chosen in the workflow. You can define what happens to the new version of the document.

- In the **When a new version is uploaded** setting, choose either:
  - **Approval Restarts from Beginning** to restart the approval cycle from zero. People who already approved / rejected the document will have to evaluate it again.
  - **Approval Restarts from Current Stage** to keep the approval stages already completed (typically approved) and restart the current stage. Approvers who already approved / rejected the document in the current stage will have to evaluate it again.

- **Approval Continues** to keep all the approval actions already done. Only approvers who rejected the document earlier will reevaluate to check whether the reason for their rejection was corrected.

### Set the Approval Master

In the **Approval Setup > Settings** section:

- Choose the **Approval Master**. This can be:
  - **Me** (the person currently editing the approval setup),
  - the **Project Manager**,
  - the document **Uploader**,
  - any project member with **View** access to the document (users, groups and roles).

The approval master is the person who gets the approval follow-up under **Approvals to Follow Up** on his **My Work** or in Dashboard pages.

Notifications are received by Approval master as an information only.

Approval Master can now **Force Approve** or **Force Reject** Approval stages. This is a configurable option in **Security Preferences**. Admin users can configure the **Force Approve** and **Force Reject** to be allowed by either

- Administrator, Project Manager and Approval Master or
- only Approval Master or
- Project Manager and Administrators

### Set Up Approval Notifications

Notifications are email messages sent to users involved in an approval cycle when certain approval events occur, like for example **User Rejected Document**, or **Approval Cycle Finished** and so on. You can define the notifications that can be received and when in the **Approval Setup > Settings** section.



**Note:** The system administrator must configure WebCenter to send e-mail for notifications to work. Regardless of the e-mail configuration, the **My Approvals** section on the **My Work** page shows items waiting for approval.

1. Choose the type of **E-mail Notifications** to use:
  - **No Notifications** if you do not want to notify any user of the progress of the approval cycle,
  - **Default Notifications** if you want to use the project's or the folder's notifications (if the document is in a folder with notifications defined, they will be used, otherwise the project's notifications will be used),
  - **Custom Notifications** if you want to select who to notify (only for this document).
2. If you have chosen **Custom Notifications**, define who to notify for each approval event:
  - the Project **Manager**,
  - the **Involved People** (the people who are involved in a particular event, for example when an approval comment is posted, the **Involved People** are the document approvers).



**Tip:** Click on **Involved People** to see a list of involved people for each event.


- the Project **Members**.

Notification	Manager	Involved People	Members
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approval Stage started	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approval, Rejection or Approval Comment posted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Document rejected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ongoing Approval Due Date changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approval Stage finished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approval Cycle finished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approval stopped	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approval Setup changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**Tip:** You can use the top check boxes to notify the Project **Manager**, the **Involved People** or the Project **Members** of all approval events.

### Approval Stage Configuration Details

You can access this by selecting the  icon on the approval stage header. This configuration is required when your

- Document(s) need(s) to be approved by several people or groups of people, in a sequential order, you can use staged approval
- The staged approval cycle works with approval **stages**, and each stage only starts when the previous stage is finished

### Allow Conditional Approval or Not

Use conditional approval to allow your approvers to give their approval on a certain condition (for example, if a barcode in the document is corrected).

The conditions (like the comments and the reasons for rejection) will be shown in:

- the **Approval** tab of the Document Details page,
- the **Action History** tab of the Document Details page,
- the **Document History** in the Viewer.
- Decide to **allow conditional approval** or not.



**Note:** This option is hidden if the administrators have turned off the **Admin > Preferences > Security Allow Conditional Approval option in Approval setup** option.



**Note:**

When working with an Automation Engine workflow, documents you approve conditionally in WebCenter will go through the **Approved with a Condition** output of the **Publish on Web** task in your Automation Engine workflow.



Use a **Wait for Action (Checkpoint)** task for those documents, so the Automation Engine operator can fix them manually.

**Allow Forward Approval Link**

The option to **Allow Forward Approval Link** is enabled in Approval setup based on the system settings by the Administrator users in the System Settings.

When the option is enabled, then either an Administrator user or Project Manager or any other user with **Change Approval** permissions can then use this option to allow the approval to be forwarded as a link.

This option is not visible if the Administrator has not enabled the option.

It is also possible that an Approver may want to forward the approval as an email link to other users. It can either be a Registered user of WebCenter or an unregistered user. The approver who forwards, can then choose to either be part of the approval cycle or not after forwarding.

**Keep or Revoke Forward Approvals**

**Keep Forward Approvals**

When **Allow Forward Approval Link** is selected for a stage, then the option to **Keep Forwarded Approval** is available. The forwarded approvals for the current stage are retained when a new version of the document is uploaded. If the forwarded users have already submitted their approval status, it is also added to the new version based on the settings.

**Revoke Forward Approvals**

Any approval forwarded can be revoked by either the Administrator or the Project Manager(s) or the user who forwarded the approval.

**Inherit Previously Submitted Approvals**

You can inherit the approvals done at a particular stage, if the same stage is restarted. The option is available in the traditional approval as well as in the workflow driven approval. When an Approval Stage is started, a check is made to know

- If there are any already submitted Approvals on this document and
- **Inherit Previously Submitted Approvals** option is enabled.

Inheritance of the Approvals are done only if the previous approval state is either **Approved** or **Approved with Comments**. Approvals in previous stages with status such as **Rejected, Forced Approved, Force Rejected** or **Force Approved with comments** are not inherited.

Inheritance of an approval is done, irrespective of whether the user is still an Approver. We consider all document versions except the deleted versions, when checking for approval statuses.



**Note:**

1. Notifications are not sent for inheritance of approvals but approvals are tracked in the Documents Action history.
2. Approvals with conditions are considered as regular approvals, when they are inherited.
3. Version number of the document from where the approval is inherited is also mentioned in the Approval set up.

**Define How to Handle Document Rejection**

- Define what to do **when one user rejects** the document:
  - Choose **Stop approval cycle immediately** if you don't want to bother the rest of the approvers with a document that will have to be corrected and re-approved anyway.



**Note:**

That document version gets **rejected** as final approval status.  
The approval request is removed from the to-do list of the approvers who haven't evaluated the document yet.

- Choose **Stop approval cycle after every Approver decided**, if you want to collect as many opinions as possible before creating a new version (to increase the chances that the next version will be approved).



**Note:** That document version only gets the **rejected** status after all approvers have decided. The approvers of the next stage(s) don't get an approval request for that version of the document.

- Choose **Continue approval cycle anyway** if you want to use the current stage as a review stage (the approvers are just expected to give their opinion on the document, but do not have a veto power) and to only start the real approval in a later stage.

**Require Review State on all Annotations**

In the approval Setup, you can set up a mandatory review on all annotations using the **Require review state on all annotations before approving or rejecting** option.

This forces all approvers to review annotations before submitting an approval status.



**Note:** This only applies to viewable documents.

- Select **No** if you want all approvers to submit their Approval Status without the condition of reviewing the annotations. This is the default setting.
- Select **Any Viewer** when you want to enforce that all annotations should be reviewed by at least one person before submitting the Approval status.  
A warning message will appear when the Approver tries to submit the Approval status for the document containing unreviewed annotations.
- Select **Current Reviewer** when the Approver needs to review all annotations before submitting an Approval status.  
A warning message will appear when the Approver tries to submit the Approval status for the document containing annotations he did not review.

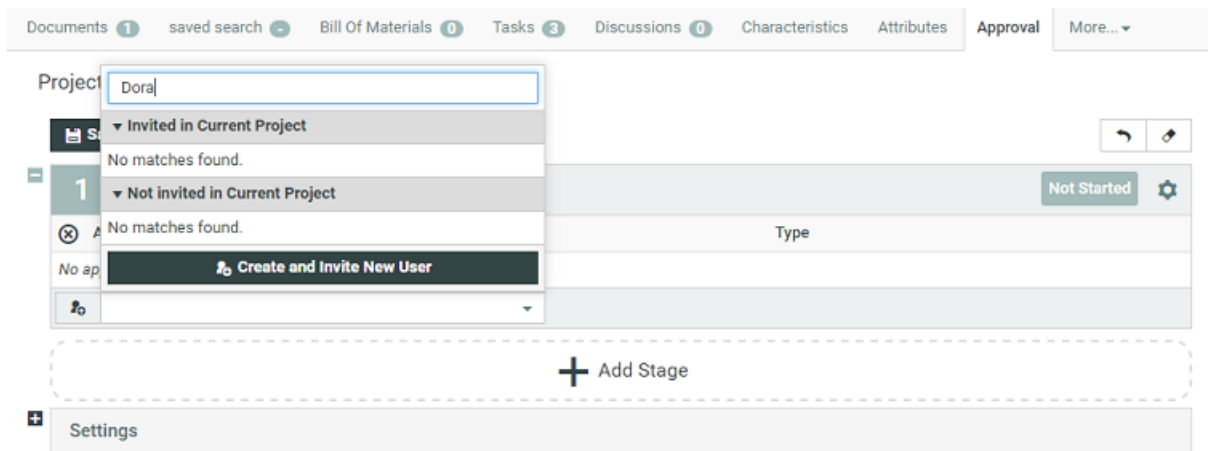


**Note:**

- The review status **None** will not be accepted as a valid review state.
- This setting is relevant while submitting an Approval Status from the Viewer and the other WebCenter pages.

### Add Approvers

You can add any member of the project as an Approver. You can also add user groups or roles **Invited in the Current Project** as approvers.



- To add a project member as an approver, select him / her in the **Add Approver** drop-down. Repeat for every user you want to add as approver.
- To add a role as an approver, select it in the **Add Approver** drop-down. After adding the Role, edit the **Type**. Select from:
  - **One of Role** if you want only one of the role assignees to approve on behalf of the role. This is the default setting.



**Tip:**

It is possible to change Role assignments after starting the Approval cycle if you select **One of Role** option. Use **One of Role** if there is only one role assignee.





**Note:**

Make sure that the Role is assigned to at least one user/group before starting the approval cycle.

- **All of Role - One per Group** if you want all users and **one** (any) member per group assigned to the role to approve the document.
- **All of Role** if you want **all** users and all members of groups assigned to the role to approve the document.

All current assignees of a Role can see the approvals for their Role in their **My Work > My Approvals** section.

- To add a group as an approver, select it in the **Add Approver** drop-down. After adding the group, select either:
  - **One of Group** if you want **one** (any) member of the group to be able to approve it for the whole group. (The document will get the **approved** status once one group member approves it.)  
A typical example would be a legal review, which is completed as soon as one member of the legal department has approved the document.
  - **All of Group** if you want **all** members of the group to approve the document. (The document will get the **approved** status once all group members approve it.)  
A typical example would be a management review, which is only completed after all members of the management team have approved the document.

All the users of a particular group are listed individually in this drop-down. It is possible to select one or members of the group by clicking on the listed members' name.



**Note:** When adding a group as **All of Group**, the users who are group members **when the approval cycle is started** become approvers. If you later add or remove users from the group, the list of approvers is not updated.

- To add a non-member as an approver, select him / her in the **Add Approver** drop-down. This will open the **Invite Project Member** dialog.
  - a) If there are Roles as members of the Project(with view rights to the folder or document where the approval is being set up), it is mandatory to assign the user to a role. Select the **Role** in the **Assign to a Role** field.
- To add a User who is not present in the system, click **Create and Invite New User** option from the **Add Approver** drop-down. It is possible to set up a default approval user template(in **preferences**) to apply to the newly created user.



**Note:**

- You need User Creation rights to be able to create and invite users.
- You can set up a default **Approval User Template** to automatically apply the **User Preferences** and **User Profile > Authentication** settings. Read more in: [User Creation](#) on page 98

Read step by step instructions in: [Create and Invite a User from the Approval Page](#) on page 297

To remove an approver or a group, use the x sign in front of it.

## Create and Invite a User from the Approval Page

Project Managers can create and invite users in the context of an approval page. This allows you (as a Project Manager) to add an external reviewer to the **Approval cycle**. If the user is not in the system, you can add a new user and invite him or her from the approval page. It is possible to create and add users from any approval page (document's, project's or folder's).



**Note:** These users will be created as Regular Users. The only exception is when an Administrator user creates a user using an Admin User as the **Approval User Template**.

If you have used up all your Regular User licenses, you will not be able to **Create and Invite User** from the approval page. Read about Named User License model in [Licensing and Users](#) on page 283.

- Click **Add Approver > Create and Invite New User**.

**User Info** in the **Create and Invite New User** wizard appears.

- Type the user's e-mail address. The fields (**Username**, **First Name** and **Last Name**) will be filled in automatically from the e-mail address. You can change these fields, if necessary.
  - Username is filled with the part before @ of the e-mail address.
  - First Name is taken as the part before the last dot.
  - Last name is filled with all characters after the last dot (or all the characters before @ if no dots are present).
- Optionally, assign to a **Company** and **Location**. Note that this can be very important to filter the content and users the new user will be able to see.
- If you want the user to log in with a link sent from the approval page, follow the process below:
  - a) Set up a [Token](#) based single sign-on instance and keep it active.
  - b) Specify a User as **Approval User Template**. Also remember to allow [link authentication](#) in the user profile.

To allow a User to authenticate via a link, configure [Token Authentication](#) on page 463 and allow this type of authentication in the User profile page.



**Note:** You need to disable all the other types of authentication to make the link authentication active.

Whenever the token-authenticated user receives a notification with a link, the link contains a token to authenticate without user credentials. This permits the users added to the approval cycle to log in using the approval links from the notification mails.

- If your **default approval user template** has no [Token Authentication setup](#) or you have not defined a user as the **template**, you need to specify and confirm a password in the **Create and Invite User** wizard.
- If there are Roles as members of the Project (with view rights to the folder or document where the approval is being set up), it is mandatory to assign the user to a role. Select the **Role** in the **Assign to a Role** field.
- Click **Create and Invite User**.

A new user is created and invited to the Project. You will be able to see this user in the Approvers list as well as in the Users list.

- If you enabled link authentication, the user will log on to the system using a link from the notification e-mail. The user will be able to see and approve the document/folder or project.
- If you specified a password, the user would need to know the password to be able to log in.

### Add a Deactivated Approver

It is possible to invite deactivated users to the approvers list.

- To add a non-member as an approver, select him / her in the **Add Approver** drop-down. This will open the **Invite Project Member** dialog. The dialog will warn you that you are activating the user with this action.
- If there are Roles as members of the Project (with view rights to the folder or document where the approval is being set up), it is mandatory to assign the user to a role. Select the **Role** in the **Assign to a Role** field.
- Click **Invite** to confirm that the member should be activated and invited.

#### Notes

- You won't be able to invite a user who has been deactivated within the past 24 hours. The users automatically deactivated or created as deactivated users do not have this waiting period of 24 hours.
- To re-activate a Project member who is in the Project Members list, click on the name (in the Add Approvers dialog) and in the prompted dialog, click **Activate**.

### Save the Approval Cycle

- When you are finished with the setup, click **Save**.



**Note:** If you were setting up an approval cycle for several documents and some of them already had a started approval cycle, the approval setup will fail for these documents. You will see a list of failed documents on the **Multiple Document Approval Setup - Info** page.



**Tip:**

From the same page, you can also:

- **Revert** the approval settings to the last saved version (when editing an existing approval cycle). See also [Editing Approval Settings](#) on page 814.
- **Clear** the approval settings (so the project, folder or document has no approval cycle). For a document, this also clears all settings inherited from the project or folder.
- **Start the Approval Cycle** (see also [Start or Stop the Approval Cycle](#) on page 813).

### Start or Stop the Approval Cycle



**Note:**

You need the **Start / Stop Approval permission** to start or stop approval cycles. This is the same as the **Lock / Update permission**.

- You can **start** the approval cycle from:

- the document list on the project page (in the **Approval** column),
- the document details page's header,
- the **Approval** tab of the document details page,
- the upload page (click **Start Approval Cycle** right after uploading your document),
- your workflow system (select the **Start Approval Cycle** option before sending your document to WebCenter).
- You can **stop** the approval cycle from:
  - the header of the document details page,
  - the **Approval** tab of the document details page.

## Editing Approval Settings

### Permissions Needed

You need the Change Approval permission to create or edit an approval setup.



**Note:** When editing a folder or a project's approval settings, the new settings affects only the documents added to the project / folder after the settings are changed.

### Started and Stopped Cycles

You **can** edit the approval cycles while they are started. To edit an approval cycle that is already started, you must first **stop** it. You can do this from:

- the header of the document details page,
- the **Approval** tab of the document details page.

### Editing a Simple Approval Cycle

After stopping a simple approval cycle that was already started, you can only edit the approvers (you can add or remove approvers, even if they have already approved or rejected the document).

You cannot change anything else (due date, conditional approval...).

### Editing a Staged Approval Cycle

After stopping a staged approval cycle that was already started, what you can edit depends on the stages' status. If a stage is:

- **completed:** you cannot edit any information or remove the stage.
- **pending:** you can only add or remove approvers (even if they have already approved or rejected the document). You cannot change other information like due date, conditional approval or remove the stage.
- **not started yet:** You can remove the stage, or add extra stages or change any other information.



**Note:** You cannot change the Approval Master.

You can now add or replace or remove an approver(s) when the stage is still in progress. Read more about it [here](#).

### Editing the Approval Cycle for Next Version

You can also choose to leave the current approval cycle as it is, and only edit the approval setup for the next version of the document. To do this, click **Edit Approval Setup for Next Version** in the document details page's **Approval** tab.



**Note:** If an approval cycle is **finished**, you cannot edit it. In this case, you can only edit the approval setup for the next version of the document.

### Role Selection while approving

In an approval cycle, a user is sometimes part of multiple roles, who are required to approve the document. While approving or rejecting the document, the Approver can choose the approval for each of the role he / she is part of.

For example, User A is part of Legal Asia, Legal Australia and also Legal South East Asia. When the user approves the document, the user can choose the role for which the approval is made.

Project History and action history pages tracks the approvals with the detail of user roles or groups specifically mentioned.



**Note:** User can still approve on behalf of all the roles by choosing the option **Default (All)**. This option is not available if reasons for rejections are enabled, as the reasons can depend on the roles of the Approver.

### Following Up on Approvals

If you are an **Approval Master**, you will see the approval cycles you are responsible for under **Approvals to Follow Up** on your **My Work** page. This section shows a summary of each document's approval cycle, with all the necessary details (Approval **Status**, Document **Version**, **Due Date**...).



**Note:** If you cannot see the **Approvals to Follow Up** section, go to **My Work > Edit My Work Setup** to add it to your **My Work** page.

In this section, you can:

- Filter the documents:
  - by status (**Pending**, **Rejected**, **Approved** or **Approved with Comments**),
  - by date (**Finished within last 14 days**, **last 7 days** or **last day**).
- Sort the documents list (by **Approval Status**, **Document Name**, **Due Date**...).
- View the documents.
- Get to a document's details page.

### When is an Approval Cycle Finished?

The approval cycle's status is changed to **Finished** when either:

- all approvers have approved or rejected it,
- the Project Manager or an admin has Forced Approved or Forced Rejected it (see [Forcibly Accept or Reject Documents](#) on page 816).

Note that in this case, the final status is **Forced Approved** or **Forced Rejected** instead of **Finished**.

A finished approval cycle may not be stopped or started without uploading a new version of the document.

### 4.9.6. Forcibly Accept or Reject Documents

Project Managers have two special approval status settings available: **Forced Approved** and **Forced Rejected** (unless this is disallowed by the Administrator).

Using either force approval or force reject finishes the approval cycle so that other approval users may not approve or reject the document.

### 4.9.7. Delegation

Delegations allows the users you nominate to view, edit, approve, comment, discuss and even reject documents on your behalf. Similar to having an assistant, another WebCenter user(s) chosen by you, can respond to all your pending tasks, approvals in your absence for a period of time specified by you. The delegation can be set up by any user based on permissions granted by the administrator.

#### Terminology used

- **Delegate:** A person to whom the work is delegated.
- **Delegator:** A person who is delegating his work to someone else.
- **Active Delegation:** Period during which the delegate can take up the work of the delegator.
- **Start Date:** Date on which the delegation becomes active.
- **End Date:** Date on which the delegation expires. When an end date is not specified, the delegation will be permanently active until it is removed.

#### My Delegated work

Any user in WebCenter can delegate his or her actions to be performed by other users.

When you have active delegations assigned, you can view them when you log in to WebCenter. Work delegated to you by other users are displayed as pop-up in the first screen. In case you have more than one delegator, you can view the work delegated by each of the active delegator along with their comments.



**Note:** To get this as the log in screen, enable the option **Show this information when logging in**

#### Log-in as a Delegate

You can either choose to continue your work or can log in as a delegate and complete the work assigned to your delegator. To perform the delegated work, choose **Act as (Delegator)**. Then you are logged in as the delegator in WebCenter and **My Work** page of the delegator is visible. You can now perform all actions as the delegator.

You can also note that the avatar in the navigation pane is that of the delegator and there is a banner indicating that **You are logged in as delegate of (User Name of the Delegator)**.

### Return to your own account

Choose **Return to my account** link in the banner or from the drop down option in the avatar to return back to your WebCenter account.

## Execute Work as a Delegate

### Viewing as a Delegate

When you log in on behalf of the delegator, you can view and perform all the work assigned to the delegator, on top of that your menu will be updated to the menu of the delegator.

As a delegate, following actions can be performed

- [Approvals](#)
- [Task Actions as a Delegate](#) on page 817
- [Document actions as a Delegate](#) on page 817
- [HTML5 viewer actions as a Delegate](#) on page 817
- [Text Actions as a Delegate](#) on page 817
- [Discussion actions as a Delegate](#) on page 818

### Approvals as a Delegate

Approving, rejecting or adding comments as a delegate is done similar to normal approvals. If the delegator has rights to change or start the approval cycle, then delegate will also have the same rights when logged in as delegator.



**Note:** When you are acting as a delegate, enter your own password to approve or reject any documents.

### Task Actions as a Delegate

Whenever the delegate logs in as the delegator, he/she will have the same rights as the delegator. This means that if the delegator is allowed to create new tasks, the delegate will be able to perform that action.

### Document actions as a Delegate

When you are logged in as the delegator, the same permissions as the delegator are given. The document actions performed by the delegate clearly indicate the owner/ uploader. Delegator is the owner of the document which is uploaded by the delegate, while logged in as the delegator. Similarly when a delegate locks the documents, the delegator can unlock the documents.

### HTML5 viewer actions as a Delegate

While access the WebCenter to perform actions for your delegator, delegate can access the HTML viewer to view, annotate and approve the documents.


### Text Actions as a Delegate

The delegate can log in as the delegator to approve, reject, comment or edit content of a Text Content language element and perform other Text Content operations based on the PCM permission model.

### Discussion actions as a Delegate

In discussions too, delegate has all the access as the Delegator and can execute all actions the delegator can perform.

The actions done by the delegate are visible on the following places:

Action by Delegate	Displayed as
<b>Creating a new Discussion</b>	Delegator is set as the Owner
<b>Post a New Message</b>	author name of the message indicates that it is posted by the delegate who was logged in as the delegator.
<b>Unread messages</b>	<p><b>For the delegate:</b> when logged for the first time, messages not yet read by the delegator are displayed. The unread messages reflect the messages that are not yet read by the delegate since the last login.</p> <p>For the delegator, the unread messages are shown as his previous log in.</p>
<b>Watch/ Unwatch a Discussion</b>	Any updates to Watchlist like adding a discussion to a watchlist or removal done by the delegate are applied to the delegator. When the Delegator logs in again will have the same Watchlist as updated by the delegate.
<b>Online status</b>	<ul style="list-style-type: none"> <li>• <b>Delegate:</b> Shown as logged in (If part of the participant list)</li> <li>• <b>Delegator:</b> Shown as offline</li> </ul>
<b>Quotes in Discussion</b>	When a user quotes a message posted by a delegate, the author of the quoted message indicates that it was originally posted by the delegate himself.
<b>Mention</b>	<p>When the delegator is mentioned in any discussion, the delegate will be notified, if the notification forwarding for the delegate is turned on.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> You cannot mention a delegate if the user is not already a part of the discussion.         </div>

### Tracking of Delegate Actions

Actions	Tracked in
<b>Approval</b>	<ul style="list-style-type: none"> <li>• Project History: "As Delegate of "column</li> <li>• Document Actions History: "As Delegate of" column</li> </ul>



Actions	Tracked in
	<ul style="list-style-type: none"> <li>Approval Setup: In the "Last Submitted by" column in approval setup and the User column in the comments pop-up, contains a string with following format: "Delegate as Delegator"</li> </ul>
<b>Create New Tasks</b>	Project History and Task Details pages
<b>Complete a Task</b>	Project History and Task Execution pages
<b>Check an item in the checklist of a task</b>	Task Execution and Task Details pages
<b>All other events</b>	Project History
<b>Document Upload</b>	Document Action History <ul style="list-style-type: none"> <li>Uploader is the Delegate ( actual uploader)</li> <li>Owner of the document is the Delegator</li> </ul>
<b>Document Lock</b>	Document Action History <ul style="list-style-type: none"> <li>Delegate can lock the document which can later be unlocked by the delegator.</li> </ul>
<b>Document Annotations including creating new annotations, Removal of annotations, reply to annotations</b>	Document action history <ul style="list-style-type: none"> <li>When a new annotation is added to the document, the author of the annotation is the delegate.</li> </ul>

### Add Delegate

You can delegate your work to a specific user or users. Follow the steps below to add delegates.

1. To add one or more delegates, go to **My WebCenter > My Delegates**.
2. Select a user from the drop-down and click **Add Delegate**.  
To inform your colleague about the delegation, enable the **Notify new/modified delegates** option.
3. If this is a temporary delegation until your return to work, specify a **Start Date** and an **End Date**.  
There is also a comment field to leave your notes.  
If you leave the **End Date** empty, the colleague can act as your permanent delegate.

**My WebCenter > My Delegates** page lists all your delegates and the respective time periods for which the delegations remain active.



**Note:** You can modify the delegation fields or delete a delegate from **My WebCenter > My Delegates** page.

### Modify or Delete Delegate

You can delegate your work to a specific user or users and modify it at a later date. To modify the existing delegation, follow the steps below.

1. Navigate to **My WebCenter > My Delegates**
2. You can modify the existing delegates by changing the start date and end date. You can also change the notifications by checking the box to send.

3. Select **Save** to confirm the changes.

To delete a delegation, select the icon in the row for the respective user.

## Delegation Notifications

### Notifications for Delegator

During the delegation period, some notifications can be received by the delegator and the delegate based on the options chosen in the **My Delegates** page.

- To receive notification when you have delegated your work to another user, select **Receive email notifications during delegation period**. This will ensure you receive all email notifications during the delegation period.

### Notifications for Delegate

- On Assignment of the Delegation, select the option **Notify new/modified delegates** to send notifications email to the delegate when added or modified.
- To receive notifications during the delegation Period, choose the option **Forward my notifications**.

## 4.9.8. Search on Project Duration

### Duration Reporting for a project

You can search for projects based on the Start date, Due date, Completed date, Duration and Time Left of the project. You can save the searches and add it to the dashboard to have an instant view of the progress of all the current projects.

Field Name	What it means
Started	The start date of a project is the first time the project was set in an active status.
Completed	The last date the project was set in a completed status
Due	The due date is shown in the project details.
Duration	The time between the start date and the completed date. Only active statuses are considered to calculate the duration of the project. When the project is not completed, the duration is the time between the start date and the current date/time.
Time Left	This is the time between the actual completion date and the Due Date. When there is no due date, the time left is not shown as it is not relevant. When the project is in progress, the Time Left is the time between the due date and the current date. When the current date/time is still before the due date, the project is not overdue. In this case, the time left is a positive number, indicating that there is still time remaining before we reach the due date.

Field Name	What it means
	When the current time is after the due date, the project is overdue. In this case, the time left is a negative number, indicating how much the project is overdue.

### How to find Project Status Duration

You can also find the Duration metrics on the time spent in a given stage of the project. Projects statuses can reoccur multiple times and you can compute the duration of time in each of the given status.

Project Status Started ▼

Prepress Creation Started ▼ this week ⚙️

Prepress Approval Started ▼ this week ⚙️

Select Project Statuses that you want to search on

You can filter each selected Project Statuses based on the duration criteria

Project Status Duration ▼

Prepress Creation Duration >=  <= 2 days ⚙️  6

Prepress Approval Duration >=  <= 7 days ⚙️  7

Field Name	What it means
<b>Project Status Started</b>	The start date of a project Status is the first time the project was set in the selected status.
<b>Project Status Completed</b>	The completed date of a project Status is the last time the project was in the chosen status before it was changed to a new status.
<b>Project Status Duration</b>	The project status duration is the time that the project spent in the selected status. It is the sum total of all the time the project was in a particular status. When the project went into the selected status multiple times, the duration is the accumulated time the project spent in the selected status.  In this field, you can filter on the duration in days of the selected status.
<b>Project Status Time left</b>	It is the time the project was in the Project Status. When there is no due date, the time left is not shown as it is not relevant.  When the project is still ongoing, the Time Left is the time between the current date with the <b>Project Status Due</b> . When the current time is before the <b>Project Status Due</b> , the project is not overdue yet.  When the current date is after the <b>Project Status Due</b> , the project is overdue. In this case, the time left is a negative number, indicating how many days the project status is overdue.

For example: Let us assume that  
 Day 1: Jan 01 00:00 till Jan 02 00:00 => Project was in StatusA.  
 Day 2: Jan 02 00:00 till Jan 03 00:00 => Project was in StatusB.

Day 3: Jan 03 00:00 till Jan 04 00:00 => Project was in StatusA.

**Project Status Started** of StatusA is Jan 01 00:00 (first time project was in StatusA)

**Project Status Completed** of StatusA is Jan 04 00:00 (last time project was in StatusA)

**Duration of StatusA is 2 days and Status B is 1 day**

## 4.10. Project and Document Security

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Project Managers secure projects by setting permissions for users and groups on a project as a whole, and on folders within the project. They can set and change permissions at any time.

### Permission types

The permissions for folders and documents are:

- **View:** This permission allows viewing the project and the list of files and folders in the top level. All users and groups invited to a project get the **View** permission automatically at the project level. At the folder level, **View** allows a user to see that the folder exists. **View** permission is required for a project or document to be listed in the **Search** results. It takes precedence over all other permissions; if a user does not have **View** permission, nothing else is possible.
- **Add:** This permission allows adding a new document to a project or folder by using **Add**, **Copy**, **Copy as Link**, or **Move**.
- **Change Properties:** This permission allows changing database information about a document or project. Project Managers have implicit permission to change the database information about projects they manage.
- **Delete:** This permission allows the removal of a document from a project or folder. This permission is also needed to **Move** a document out of a project. Only Project Managers or members of the Admins group may delete a project.
- **Download:** This permission allows downloading a project or document from the database to a user's computer. This is also required to open documents other than an Esko ArtiosCAD 2D or 3D view, or those viewable in the WebCenter Viewer.
- **Lock/update:** This permission allows the locking of documents and the subsequent uploading of new versions.
- **Start/Stop Approval:** This permission allows starting and stopping approval cycles.
- **Change Approval:** This permission allows the user to change the approval setup.
- **Change Task:** This permission is only available for WebCenter

setups including task management. It allows users to create and change tasks. You can only set this permission at the project level, not at folder level.

- **Change BOM:** This permission allows the user to change the Bill of Materials (Administrators and the Project Manager can always change the Bill of Materials). You can only set this permission at the project level, not at folder level. See [Who Can Edit the Bill of Materials?](#) on page 475 in the Administration Guide for more information.

### How permissions are inherited

Documents that are not in a sub-folder inherit project permissions. By default, folder permissions are inherited from the project, but they may be overridden by the Project Manager as desired.

If a user is invited to a project, and is also a member of an invited group, then group permissions for that user are ignored, and only the individual permissions for that user are considered.

If a user is not invited to a project, but is a member of a group that is invited to the project, the group permissions are used.

If the user belongs to more than one group that is invited to the project, the permissions are combined and the user gets the most permissive security setting available.

**Permissions and groups: an example**

For example, user USER1 is a member of GROUP1, GROUP2, and GROUP3. PROJECT1 has GROUP1 and GROUP2 as invited members, and GROUP3 is not invited. GROUP1 has Change Properties granted and GROUP2 has it denied, and it is not set for GROUP3 because GROUP3 is not an invited member. USER1 is able to modify database information about PROJECT1 because it is granted through GROUP1.

**Project Managers and Admin group members**

Members of the Admins group have full permission to access everything.

Project Managers have full permission within the projects they manage.

**4.10.1. Set Security on a Project**

1. Log in as a **Project Manager** or **Project Creator**.
2. Open the project.



**Note:** The project should have folders created and members invited already.

3. Click the **Security** tab.

Documents 1 Bill Of Materials 1 Tasks 1 Discussions 1 Characteristics Attributes Project Information Approval Notifications Members **Security** Configure

Project Folders Users Groups Roles

Permissions for Project Lumi+ Purple

	Full Permission	View	Add	Change Properties	Delete	Download	Lock/Update Start/Stop Approval	Change Approval	Change Task	Change BOM
Piro, Pieter-Jan (PJPR) as PRINTER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AGENCY GHENT as AGENCY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DESIGNER GHENT as DESIGNER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AGENCY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DESIGNER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRINTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Save**

4. To set/edit the project permissions: choose **Project** from the menu and check or uncheck the desired permissions for specific users, user groups or roles.

When you first enter a project's security menu, this menu is selected by default. Project level security controls access to the project and whether the contents of the project documents folder are visible and searchable. A checked item indicates a granted permission; no check indicates a denied permission.



**Note:** View is automatically granted upon invitation to a project. View permission to the root of a project cannot be denied for an invited project member.



**Tip:** To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.

5. Set folder level permissions:

- a) Click **Folders**.
- b) Select the folder to change from the **Permissions for folder** list.
- c) Check the checkbox in a column to grant it to the user, group or role in that row; clear the checkbox to deny it. To revert to default project permissions, click **Reset**.



**Tip:** To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.

6. Set the user specific permissions:

- a) Choose **Users**.
- b) Select the user whose permissions are to be modified in the **Permissions for user** list.
- c) For Project and folder permissions, check the checkbox in a column to grant it to the user or group in that row; clear the checkbox to deny it. To revert to default Project permissions, click **Reset**.



**Tip:** To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.

7. Set group level permissions:

- a) Choose **Groups**.
- b) Select the group whose permissions are to be modified in the **Permissions for group** list.
- c) For Project and folder permissions, check the checkbox in a column to grant it to the user or group in that row; clear the checkbox to deny it. To revert to default Project permissions, click **Reset**.



**Tip:** To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.

8. Set role level permissions:

- a) Choose **Roles**.
- b) Select the role of which you want to modify the permissions in the **Permission for role** list.
- c) The changes you make in this section define what the default permissions to be used when you assign a user or group to this specific role. Any changes made here will not affect users and/or groups that have already been assigned to the role.

## 4.11. Reassign a Project to Another Project Manager

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Projects may be reassigned to other Project Managers as long as the current Project Manager is not an Approver in ongoing Approval Cycles in that Project.

- 1. Log in as a **Project Manager** or **Project Creator**.
- 2. Open the project.
- 3. Click **General Information**.

4. Click **Manager**. WebCenter performs a dependencies check for the current Project Manager being an Approver on ongoing Approval Cycles. If it finds any, click **OK**, stop the Approval Cycle(s), and retry changing the Project Manager.
5. Assuming there are no dependencies, filter or click Go to generate a list of Project Managers.  
This list can also include user groups.
6. Click the name of the new Project Manager or group and click **Finish**. The new Project Manager's name will appear on the General Project Information page.

To reassign more than one Project to another Project Manager, generate a list of projects either by searching or by using an item on the main Projects menu, and then click Change Manager in the **Actions** menu. Filter or click Go! to show the list of Project Managers, select the desired Project Manager, and click Finish.

Admins can change Project Managers for more than one project at a time using the **Projects** menu in **Project Management** on the **Admin** menu.

While they can select projects with different Project Managers, they may only assign all the projects to one Project Manager.

## 4.12. Create a User



**Attention:**

As a Project Manager, you can only create other users if the Admin granted you the **User Can Create User** privilege.

For more information about this privilege, see "[Create a User](#)" in the Administration Guide.

1. In the **Create** menu, click **Create User**.  
**Step 1: User Info** in the **Create New User** wizard appears.
2. Type the basic user information into the appropriate fields (**Username, First Name, Last Name...**).



**Note:** Required fields are indicated with an asterisk \*.

3. Provide the user's initial **Password** and confirm it.  
Enable the option **Require the user to change the password at first login** to force the user to choose a new password when they first log on to the system.
4. Do you want this user to see custom menus instead of the default WebCenter menus?  
Custom menus allow you for example to simplify the user interface, so the users only see the menus they need to use. For more information, see "Menus Preferences" in the Administration Guide.
  - If yes, choose the menu to assign to the user in **User Menu**.
  - If no, leave **Default** in **User Menu**.
5. Click **Continue**.
6. In **Step 2: Assign to a Company**, optionally select a company to which you want to assign the user.  
Note that this can be very important to filter the content and users the new user will be able to see.
7. Click **Finish**.


Your user is created.

## 4.13. Editing Users and their Preferences

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### 4.13.1. Edit a User

1. In the **My WebCenter** menu, click **My Users**.  
This shows all the users you have created.
2. On the **My Users** page, filter the list of users if desired, and click the username of the user to edit.  
The **Profile** page appears.
3. Make the required changes:

To edit the user's...	You should...
<b>user info</b>	edit the fields on the <b>Profile</b> page.
<b>menu</b>	select a different <b>User Menu</b> .  <div style="display: inline-block; vertical-align: middle;"></div> <div style="border: 1px solid #ccc; padding: 5px; display: inline-block; vertical-align: middle;"> <p><b>Note:</b> Users linked to a company will always see the menu assigned to the company, even if they have a different menu assigned to them individually.</p> </div>
<b>company or location</b>	<ol style="list-style-type: none"> <li>1. Click the <b>Company/Location</b> link on the <b>Profile</b> page.</li> <li>2. Select a new company and click <b>Finish</b>.</li> </ol>

4. Click **Save** to confirm.

### 4.13.2. Change the Password for a User

1. In the **My WebCenter** menu, click **My Users**.  
This shows all the users you have created.
2. On the **My Users** page, filter the list of users if desired, and click the username of the user to edit.
3. Click **Password** to show the **Password** page.
4. Type a new **Password** and confirm it.
5. Click **Change** to save the changes.

### 4.13.3. Set the Preferences for a User

1. In the **My WebCenter** menu, click **My Users**.  
This shows all the users you have created.



2. On the **My Users** page, filter the list of users if desired, and click the username of the user to edit.
3. Click **Preferences** to show the **Preferences** page.
4. Configure the Preferences as needed. For more information on the settings and options, see General Preferences in the Administration Guide.
5. Click **Save** to confirm.

#### 4.13.4. Copy Preferences to Users

Use this to quickly copy previously defined preferences to one or several users.

1. In the **My WebCenter** menu, click **My Users**.  
This shows all the users you have created.
2. Select the user(s) whose preferences you want to change and select **Apply Preferences** in the **Actions** menu.
3. In the **Apply Preferences** popup, select the preferences to change, and deselect the preferences to keep.  
**Other Preferences** are the user preferences not mentioned above (for example: show thumbnails or not, search results layout, etc.).
4. Select who you want to copy the preferences from: in **Take Preferences From**, select another of your users, or select **Default** to use the default settings for the preferences you selected.
5. Click **OK**.

### 4.14. Discussions in WebCenter

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You can start a discussion in WebCenter, in a **Project**, **Task** or at a **Document** level. It facilitates members of the project to have conversations, which improves collaboration and faster decision making.

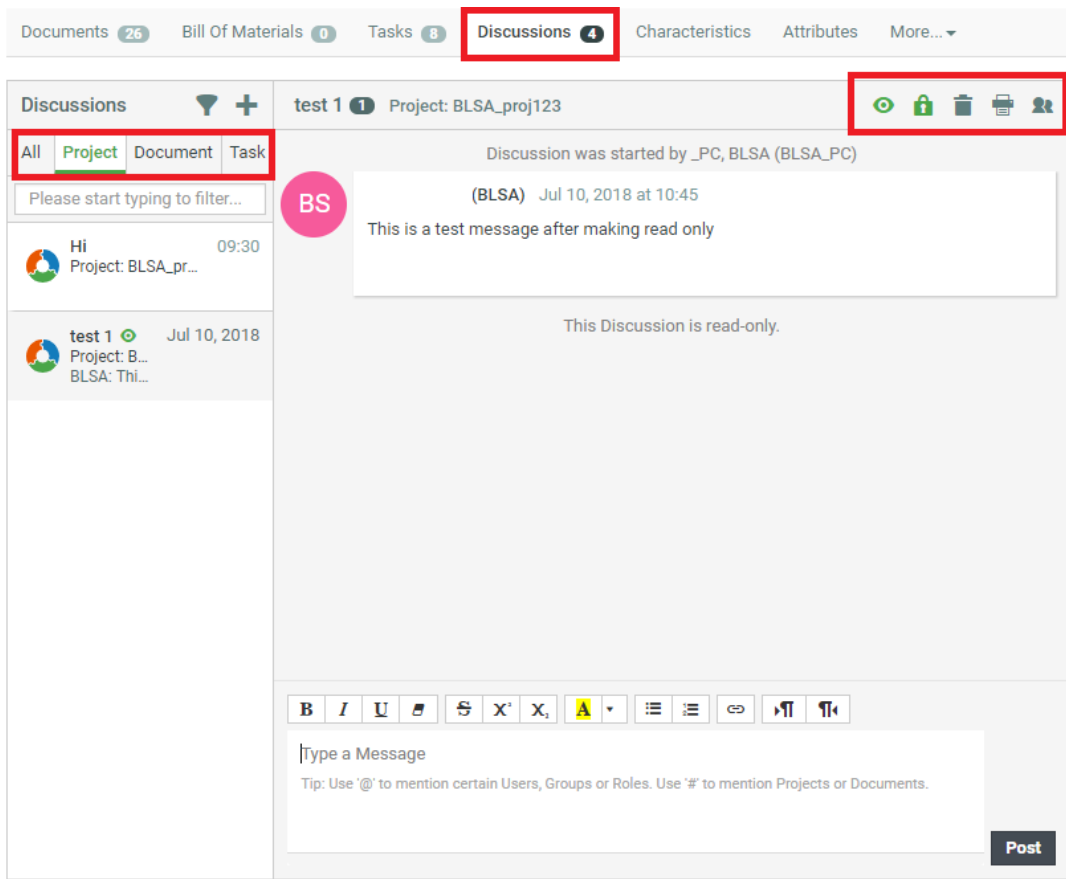
You can view the conversations in the **Project** or **Task** or at the **Document** level in the **Discussions** Tab. **Discussions** can be with all the members or private conversations with few or one member of the project.


You can view and respond to discussions on **My Work** and **Search Results** dashboard pages if enabled. You can also view and respond to discussion pertaining to the document in the HTML Viewer.

#### 4.14.1. Start a New Discussion

New Discussions can be created in Projects, Documents or in Tasks that has discussions enabled. Any user can create new discussions.

- To **Start New Discussion** in a Project:
  - a) Navigate to **Project Details > Discussions Tab**. You can view the **Discussions** for **Project**, **Document** and **Task** in separate sub tabs.



- b) In the **Discussions** panel, click  to **Start New Discussion**. A message panel is opened in which you can enter a relevant subject.
- c) Add the members to the **Discussion** by selecting from the drop down list in the **Visible To**. By default, the discussions are visible to all members in the project including the Project Manager. Refer to point 4 in the note below.
- d) Write a relevant **Subject** line and type the message in the message panel and **Post** the message.
- To start a new discussion in a **Task**:
  - a) Ensure that the **Task Type** chosen for the task is enabled to have **Discussions**.
  - b) Navigate to **Project Details > Task**.
  - c) Click **Discussions > Start a new discussion**.
  - d) Add the members required for the **Discussion** by selecting from the drop down list in the **Visible To**. Refer to point 4 in the note below.
  - e) Type the message in the message box and **Post** the message. Now this message is visible in the **Discussions**.
- To start a new discussion on **Documents**:
  - a) Navigate to **Project Details > Documents**
  - b) Click **Discussions > Start a new discussion**.
  - c) Add the members required for the **Discussion** from the drop down list in the **Visible To**. By default, everyone allowed to view this document is part of the discussion on the document. Refer to point 4 in the note below.

d) Type the message in the message panel and **Post** the message. Now the discussion is visible in the document to all the users who have permission to view the document.

Discussions on document can have members from other projects, if the document is part of other projects.



**Note:**

1. Discussions can be deleted only by the Admin User or the Project Manager or the Discussion Owner.
2. Project Manger can view all the private discussions in the Project or in the Documents or in tasks within the project.
3. Any discussion can be made read-only either while creation or any time during the discussion by the owner of the discussion or the Project Manager or the Admin user.
4. When a new Discussion is created, it is possible to have the default participant as the Discussion creator which can later be edited to add the required members. This feature is enabled based on the Admin User's choice in the **Preference** page. You can enable notifications when a new member is added or deleted in a discussion.

### 4.14.2. Post a Message in Discussion

Any user who is part of the discussion can post a message.

1. Go to the **Discussions** tab in Project.
2. Select the Discussion, where you want to add a message.
3. Enter the text in the Message box and click **Post**.

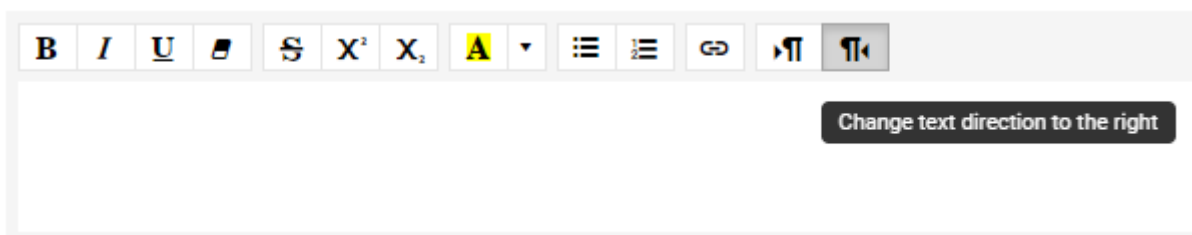
When hovering on any message, you can get an option to quote the post and to mark the message as unread. Discussion owners, Project Managers and Admin Users will get an option to delete the messages.



**Tip:** Depending on the setting for Notifications in the Project, notifications are sent when:


- Discussion Started
- Discussion Deleted
- Discussion Message added
- Discussion Message deleted

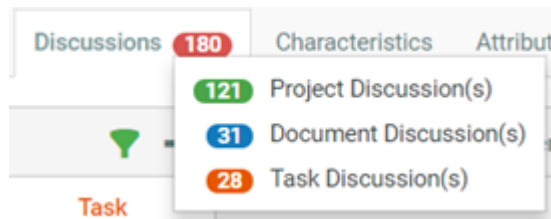
Discussion editor is equipped to handle texts from languages which are written from right to left. Enable the right to left or left to right buttons to change the direction of text.



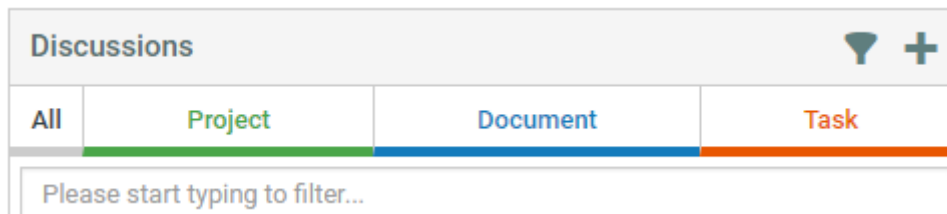
### 4.14.3. Viewing Messages in Discussions tab

The **Discussions** tab label displays the numbers of Discussions and on hovering over the label you can view the number of discussions in **Project**, **Documents** and **Tasks**.


 **Note:** When there are unread messages, the badge has a different color.


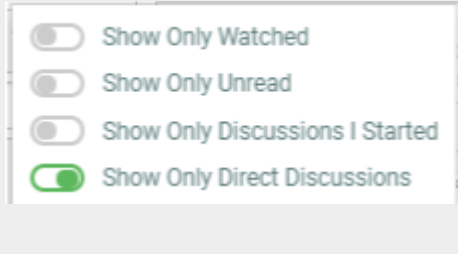











In the **Discussions** tab, you can view discussions filtered and displayed in four tabs on the left for **All**, **Project**, **Document** and **Task** respectively. The Discussion with the most recent message is displayed in the message box.



#### Menu Options in the Discussions Tab

Use	To
	Filter the discussions based on what you are watching, or marked as unread or discussions started by you. You can choose one or more or none of the options to filter.

Use	To
	 <p><b>Note:</b> You can also filter out using <b>Show Only</b> options. You can filter out discussions based on what is being watched or unread or direct discussions or discussion started by the user or as a direct participant.</p> 
	Add a new <b>Discussion</b>
 Watch All  Unwatch All	Watch all Discussions or reverse it.
 Mark All as Read  Mark All as Unread	Mark all the Discussions as read or reverse it.
	Print the discussion which is currently visible.
	Watch the current discussion. The discussion subject also displays this icon to indicate the discussion is being watched.
	<b>View Participants</b> in the current discussion in a sub tab with their online status.

 **Note:** You can filter to view only direct Discussions.

### Special characters in the Discussions

Use	To
@	Mention a User, Group or Role in a message. The User, Group or Role will get a notification of the mention in the message.
#	Link to the Project or Document name mentioned

### Discussions during Delegation

Users sometimes delegate their work to other users and in such circumstances the delegate can also be part of discussions for the delegator. Read more about delegation [here](#). Discussions Read-only

Admin Users, Project Managers of the Project where the discussion is in and the owners of the Discussion can make the discussion read-only. In read-only mode, a normal user cannot add a new

messages or quote any message. The owner of the discussion also cannot add or edit the users in the discussion nor delete the individual messages.

## 4.15. Task Management in WebCenter

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Task management adds a complete time perspective to your Projects. WebCenter facilitates timeliness by adding extensive notifications on the tasks. The task searching and overview pages facilitate follow-up, finding critical and overdue tasks and creating reports.

Task Management allows adding tasks to WebCenter Projects and assigning these tasks to Project members.

Tasks have due dates, start dates and estimated dates. Tasks also have a specification and a checklist. In addition, you can link documents with tasks and organize a discussion forum around a task. Finally, tasks have statuses.

**Note:**

Task Management is an optional feature of WebCenter. If you did not purchase the Task Management license, you won't be able to create tasks or task types and these features won't appear in your user interface.

### 4.15.1. What You Can Do with Task Management

A task is work (or part of the work) that you assign to a project member with a specific due date. A task has a **name**, a **description**, a **status**, **due date**, **estimated date**, **starting date**, a **specification**, a **checklist** and a **discussion forum**. Use tasks to:

- **assign human tasks to project members, groups or roles:**

The assignees or group of assignees will get a notification by e-mail and via their To Do list. You can describe the task via the task description (free text), the task specification (structured data) or via the checklist.

You can restrict the task type to a dedicated **Main Assignee**.

- **create task sequences:**

You can connect the tasks in a way to launch the next task automatically on completion of the preceding task. Alternatively, you may set a delay to start the task automatically. This feature allows you to **build automated workflows that flow from one project member to another**.

You can also set the Project Status to be completed when the tasks are completed.

- **monitor critical tasks:**

Use the Gantt chart to view the tasks in their time line. You can monitor the status of the critical tasks according the project delivery time line.

- **project definition:**

Define what parts constitute a project. These parts can be human tasks but can often also be physical components to deliver, for example all the parts of a complex box. Each part can have a different due date. You can use the specification to define length, width, depth or any other parameter. You can upload the digital files representing this component to the task representing this physical delivery.

- **Create a project plan according to a project plan template.** This allows making a plan with multiple steps that are shifted in time. You can re-use timings from a previous project to create estimates from where you can start refining.
- **Keep track of quotes or projects in an initial state.**
- **Organize your own To Do list.**

## 4.15.2. Basic Concepts of Task Management

### Task

A task is a piece of work you assign to a project member to be done before a certain due date. A task has a name, a description, a status, due date, estimated date, starting date, a specification, a checklist and a discussion forum.

Only the name and due date are needed, the rest can be omitted if they are not interesting or needed. Tasks have a task type.

A task lives in a project. A project can have multiple tasks but a task cannot be in more than one project at the same time.

### Task Type

Task types are templates for tasks. Task types are global for the WebCenter system. Each task follows the task type from which it was created.

The task type contains:

- Estimated duration of the task.
- List of statuses for the task.
- Specifications. This is a set of parameters you want the task creator or assignee to enter into the system (they can be required, in which case the task will not be completed if they are not filled in).
- Checklist. This is a set of items you want to assignee to check off before completing the task. Optionally, the system can enforce this.
- Documents. This is a set of parameters that defines whether you can add or even have to add a document.
- Discussions. You can allow to start a discussion in your task.
- Workflow. In this section you can create a complete workflow using different task types and other nodes.

### Specification

A parameter for a task. Specifications work much in the same way as attributes. The list of specifications is determined by the task type.

### Due Date

The date and time by when a task must be completed. Due dates are visible in all task overviews. Due dates are mentioned clearly in the notifications sent to the person to whom the task is assigned.

If the task is not completed on the due date/time, the assignee will get a reminder. Tasks going overdue are flagged in red in the task overviews and search results.

### Estimated Date

The estimated date is a date and time filled in by the task assignee. It gives the best current estimation of when the task will be finished.

Estimated dates are allowed to fall before or after the due date, but when they fall after the due date, they will appear in red in the task overviews. Changing the estimated date will normally send a notification to the Project Manager or task owner.

#### Started date

The date and time when the task changed status from Created to In Progress.

#### Assigned To

Tasks are assigned to project members. You can assign a task to one project member only (one user or one role or group). You can also assign any task to yourself, which provides a way of notifying the other project members that you will take responsibility for this task.

Tasks can change assignees during their life cycle, in this way handing over the task or responsibility from one person to another.

#### Allowed Assignee

You can restrict the tasks to have a pre-configured **Allowed Assignee**. This feature allows you to restrict the tasks to a group or a role specified in the Project / Template as the only allowed assignee.

- You can specify a **group** or **role** as the allowed assignee of a task type. This allows you to restrict the task assignment to a member of this particular group / role for all tasks derived from it.
- Alternatively, you can enable this feature in the task type and leave it unassigned (**default to task assignee**). This allows you or the user to specify a particular **group** or **role** in the task.



**Note:** This feature is restricted to administrator users.

#### Auto-delete

A task type can be configured with an option to automatically delete the task when it is completed successfully. This option comes in handy when you want to keep the task overview page clean.

This is especially useful in the case of tasks specified in [Rules](#). It is best to delete the Rule related tasks automatically once they are executed.



**Note:** The project history will keep a log of all the tasks that were created, started and completed successfully. History will capture the task details at the time of task creation.

### 4.15.3. Getting Started with Tasks

#### Create a Simple Task

The system comes with only one task type built in: Simple Task. This is a task with no document, no specification, no checklist, and no estimated duration.

Use the Simple Task type to experiment with creating tasks before figuring out how to make task types. Listed below is a procedure for getting started.

1. Open a project (or create one) and click **Tasks**.



**Note:** If you don't have a **Tasks** tab, you probably do not have the Task Management license.



If this is a fresh project, an empty list of tasks appears.

2. Click **Create New Task**.
3. On the **Create New Task** page, select the **Task Type**. Since this is the first time you are using tasks, select **Simple Task** from the **Task Type** list.
4. Assign the task to a project member or user group using the **Assigned to** list. For this first task, select yourself.



**Note:** If you assign a task to a user group in WebCenter, all members of this group will see the task show up in their My Work pages, and they will all receive notification e-mails (if set up by your site Administrator). Any member in the group can then take on the task and complete it.

5. Enter a **Name** and **Description** for the task. Fill in other fields as desired.
6. Click **Create**.

You have created a simple task.

### Use the Task List, Task Search and My Work Page

- Click **Tasks** to get an overview of the tasks in your Project.
- Create some additional tasks with different due dates and assignees. You'll see a list of tasks building up and you can start experimenting with the **sorting options** in the overview.
- Try a task search: click **Search** in the top menu, click **Tasks** and enter your search criteria.
- Now go to your **My Work** page. You'll see all tasks assigned to you under **My Tasks**.

You'll see the status and the due date. Due dates in the next 3 days will appear in orange and due dates in the past will appear in red.

Completed tasks are shown under **My Recently Handled Tasks**.



**Note:** If you cannot see **My Tasks** or **My Recently Handled Tasks**, go to **My Work > Edit My Work Setup** to add them to your **My Work** page.

## 4.15.4. Task Types

Use a Task Type to:

- Set up a template for a large number of tasks.
- Enforce structured specifications for tasks.
- Enforce a checklist for tasks.
- Add extra task statuses.



**Note:** Task types can only be created by Project Managers with the **User Can Create Task Type** permission, or by Admins.

The task types are also used in creating workflows in WebCenter. Read more in [Workflows](#) on page 885.

A **Task Type** can be either **Manual** or a Task Type with a **Workflow**. Both types can be added to a workflow from the canvas.

The **manual** tasks require human intervention and they can be used as either individual tasks or as workflow nodes.

Read also [Task Types](#) on page 963

## Create a Task Type

Creating a task type demands some initial planning, certainly if you want to use specifications.



**Attention:** All specifications you want to put in a task type must first be defined by an Administrator.

To create a task type, do the following:

1. Click **Task Types** in the main menu bar. You will get an overview of the existing task types.



**Note:** If you cannot see **Task Types** in the main menu bar, you either do not have the **User Can Create Task Type** permission set on your user profile, or you do not have the task management license.

2. Click **Add Task Type**. This brings you to a wizard.
3. Enter a **Name**, an optional **Description**, **Estimated Duration** and **Due Date Link**. Click **Create**.

The Estimated Duration is used to calculate defaults for dates. We advise to only use the **Estimated Duration** for tasks that really have a typical duration (overnight shipping, die creation...).

**Due Date Link** is an option to select a **Date/Time Attribute**, which can be set as the task due date. You can also choose an offset value (plus or minus, in days and hours) to the attribute as due date. The due date will always be in weekdays. Changing the attribute value in the project will change the task due date.



**Note:** By default, Saturday and Sunday is considered as weekend. However, it is possible to switch the weekend days to Friday and Saturday. The due date calculation will ensure that the due date will always be on a weekday. To enable this in your WebCenter system, contact an Esko Representative.

Enable **Allow Changing Task Due Date Link** to allow users (with Change Task Permission only) to change the attribute link in the tasks derived from this task type or can provide a fixed date/time as task due date.

4. Optionally add **Specifications** and determine whether they are required.



**Note:** If a specification is required, tasks of this type cannot be put **In Progress** before all required specifications are filled out.

- If the Admin enabled **Attribute is also a task specification** when creating some attributes, they will be in the specifications list. If desired, those can be used both as an attribute in your projects, and as a specification for tasks.

You can then select **Automatically update project attributes from task specifications** so that when the task assignee updates the specifications' values and completes the task, the corresponding attributes' values are updated in the project.

- You can also select **Assign roles from task specifications**, if you want to use tasks created from this task type to allow non-project managers to select users or groups (for example to invite people, to assign tasks or approvals to users / groups).

See [Example: Assign a Role using a Task](#) on page 883 for more information.

**Note:**

You can also:

- [Add Statuses to a newly created Task Type](#),
- [Change settings related to task documents](#),
- [Change settings related to task discussions](#).
- [Add Custom Document Sources to the Tasks](#)

Now that you have created a new task type, it is a good idea to try to create a task based on your new task type.

Go inside a project, click **Tasks > Create New Task**, and follow the wizard.

## Save As Task Type

### New Task Types from existing Task Types

You can utilize the existing Task Type by the option **Save Copy As** in the Task Type details page. You can copy all the details of the existing task type and save it with a new name.



**Note:** Users with permission to create task type can use this option.

## System History Logs

All **Task Type** related events like

- **Task Type General Info changed**
- **Task Type Specification changed**
- **Task Type Checklist changed**
- **Task Type Status changed**
- **Task Type Document changed**
- **Task Type Document Creation changed**
- **Task Type Document Rendering changed**
- **Task Type Discussion changed**
- **Task Type Workflow changed**
- **Task Type created**
- **Task Type deleted**


are recorded and stored in System History. Read this page on how to access the [records](#).


## Edit a Task Type


1. Click **Task Types** on the main menu bar. You'll get an overview of the existing task types.
2. Click the name of the task type. You'll see an overview with the following tabs:
  - **General Info**
  - **Specifications**

- Checklist
- Status
- Documents
- Document Creation
- Discussions
- Workflow

3. Consult the following table to consider the impact of your changes to any existing tasks derived from the task type:

If you change the task type's...	Then...
<b>Name</b>	Existing tasks derived from the type will display the new task type name.
<b>Icon</b>	Each task type can have an icon. This icon is used in the Workflow canvas/gallery and is also used in the task list in Projects. Click the <b>Select Icon</b> button to select a required icon. You can also use filtering on the icon name. The files with extensions jpg/jpeg, png, gif, bmp.
<b>Dashboard</b>	Specify a Dashboard that can be used in <ul style="list-style-type: none"> <li>• <b>ToDo Feed</b>, or <b>Selection Details</b> blocks in Dashboards for a visual representation of the Task and /or</li> <li>• To view in Focus Layout for Task Search results.</li> </ul>
<b>Restrict Task to an Allowed Assignee option</b>	In the <b>General Info</b> tab, you can enable the setting to restrict task assignees to a particular role or group. After enabling this option, you can: <ul style="list-style-type: none"> <li>• select an <b>Allowed Assignee</b> role or group.</li> <li>• set <b>Default to Task Assignee</b> in the <b>Allowed Assignee</b> field. Read more in: <a href="#">Restricting a Task to Project Roles or Groups</a> on page 853</li> </ul>
<b>Require Password to complete Task</b>	Enable this option in the task type, to get password confirmation for the task completion. Tasks completed with password re-entered, are specifically mentioned in the project history. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> Password requirement can be setup only for manual tasks.           </div> <p>When this option is enabled, you can further specify</p>

If you change the task type's...	Then...
	<ul style="list-style-type: none"> <li>• <b>Prompt for Password</b> where only password is to be provided</li> <li>• <b>Prompt for User name and Password</b> where both User name and password ha to be provided</li> <li>• <b>Prompt for username and password once, afterwards only prompt for password</b> where user name to be given once and thereafter only the password to be provided</li> </ul>
<p><b>Perform full validation of Document Attributes on User Task completion</b></p>	<p>Enable this option in the task type, to ensure that all the mandatory values required in the task are all validated on completion of the task.</p> <p>If all values are not found in either the task specification or in task document then an error message is given.</p>
<p><b>Automatically delete Task when successfully completed</b></p>	<p>This option, if enabled, automatically deletes the tasks when they are completed successfully. This option comes in handy when you want to keep the task overview page clean.</p> <p>This is especially useful in the case of tasks specified in <a href="#">Rules</a> where you do not want all the tasks in the Project's tasks page.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> The project history will keep a log of all the tasks that were started and completed successfully.</p> </div>
<p><b>Estimated Duration</b></p>	<p>Existing tasks will not be changed in any way.</p>
<p><b>Specification</b></p>	<p>Existing tasks derived from this type will be updated as follows:</p> <ul style="list-style-type: none"> <li>• If you add a specification, all tasks of this type will get an extra specification.</li> <li>• If you make an extra specification required, all tasks not yet In Progress will enforce this specification.</li> </ul> <p>Nothing will happen to tasks that are already In Progress, or Completed, or any other state beyond Created.</p> <ul style="list-style-type: none"> <li>• If you delete a specification, it will be removed from tasks not yet in progress. Information in there will be lost. All other tasks will be kept intact.</li> </ul>

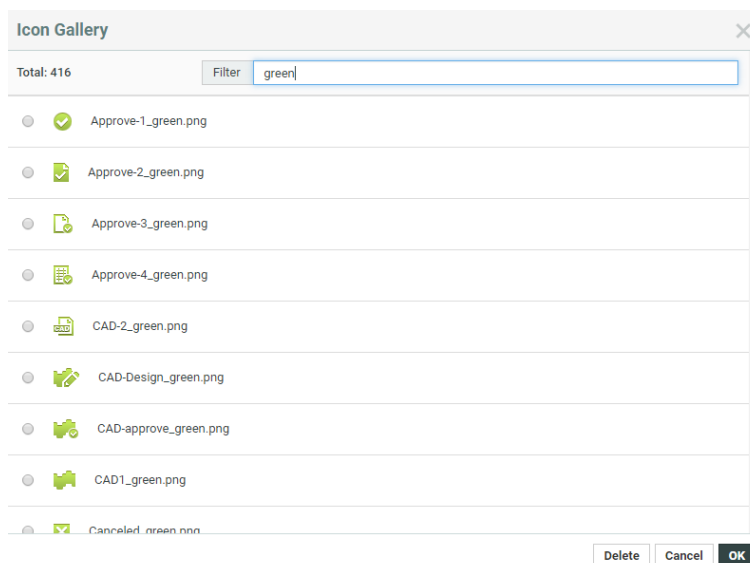
If you change the task type's...	Then...
	<ul style="list-style-type: none"> <li>Read more in: <a href="#">Synchronizing Specifications with Project Attributes</a> on page 844</li> </ul>
<p><b>checklist items</b></p>	<p>If you...</p> <ul style="list-style-type: none"> <li>Add checklist items: existing tasks derived from this type and not yet completed will also get the new checklist items. Completed tasks are not affected.</li> <li>Delete checklist items: they will be deleted from all non-completed tasks. Information in these tasks will be lost.</li> </ul>
<p><b>status</b></p>	<p>If you...</p> <ul style="list-style-type: none"> <li>Add a status: it is added to all non-completed tasks.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;">  <p><b>Note:</b> Tasks will not change status as a result of this.</p> </div> <ul style="list-style-type: none"> <li>If you delete a status: it will not be applied to any created tasks.</li> </ul>
<p><b>Document Creation</b></p>	<p>Tasks created from this task type are presented with the customized document upload options. Read the details about this option in <a href="#">Document Creation Settings</a> on page 175.</p>

Each Task Type can have an icon. The Icon gallery stores icons for Task Types, Project Statuses and WebCenter statuses.

You can add your own icons to this library as jpg/jpeg, png, gif or bmp images. The Project Statuses, Task Statuses and Task Types can load icons from the icon gallery.

Icons between 15 and 30 pixels high and between 15 and 130 pixels wide appears without scaling.

The gallery allows filtering of icons by its name.



### Task Specifications

Specifications work like Attributes and together in a Task Specification page, they act like an Attribute Category. They are used for specifying tasks.



**Note:** Specifications can be made by an Administrator or Project Managers with **Create Task Type** permission.

### System History Logs

All **Specifications** related events like

- **Specifications created**
- **Specifications deleted**
- **Specifications changed**

are recorded and stored in System History. Read this page on how to access the [records](#).

### Create a New Task Specification

1. Go to **Task Types > Specifications**.

A list of specifications opens (this list can be empty if this is the first time you use specifications).



2. If your specification will be a restricted set (a drop-down list of items to select from), you need to create this restricted set first. Click **Restricted sets** to do this.



**Note:** The restricted sets are shared with the Attributes' restricted sets.

3. Click **New Specification** on the top right.
4. Enter information in the fields as appropriate:



In the field ..	Fill In the ..
<b>Name</b>	name of the attribute


In the field ..	Fill In the ..
	(for example, Billable).
<b>Description</b>	description of the attribute contents (for example, Indicates whether work on this project should be billed by finance).
<b>Type</b>	<p>the type of the attribute. You can select from the drop down.</p> <p><b>Document References</b> are attribute-links pointing to different document sources. When you select this option, you will have more options. Read more in <a href="#">Create a Document Reference Attribute</a> on page 374.</p> <p><b>Floats</b> are numbers containing a decimal point (e.g. 3.1415) and integers are whole numbers (e.g. 42).</p> <p><b>Rich Text attribute</b> type allows you in entering long and/or rich text. You can:</p> <ul style="list-style-type: none"> <li>• add set of least 16 different colors.</li> <li>• set the text bold and italic.</li> <li>• use bullet and numbered lists.</li> <li>• Heading up to four levels and also add tables.</li> </ul> <p>In the <b>Preview</b> you will see the Rich Text editor. Click the <b>Show Rich Text Controls</b> link to view the broad pallet of text options. The Project Managers with change properties rights can add content from a document to the Rich text editor window. Here, the text (also Chinese, special characters), font types, bullet types, color, tables and headings are preserved.</p>
<b>Values</b>	<p>choose either:</p> <ul style="list-style-type: none"> <li>• <b>Prompted</b> if you want to allow the user to enter any value.</li> <li>• <b>Calculated</b> if you want to use an ArtiosCAD formula to calculate the attribute value (enter the ArtiosCAD formula in the field).</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p> <b>Note:</b> You should set <b>Calculated</b> attributes to <i>read-only</i> as their values are automatically updated from ArtiosCAD and should not be changed by WebCenter users. To set the value of the calculated attributes during upload, ensure that you have a default attribute category with the calculated attributes for the ArtiosCAD documents.</p> </div> <ul style="list-style-type: none"> <li>• <b>Restricted Set</b> to limit the possible values.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p> <b>Note:</b></p> </div> <ul style="list-style-type: none"> <li>• To choose a Restricted Set, it must be created before defining the attribute (see <a href="#">Create a Restricted Set</a> on page 320).</li> <li>• Make sure that the Type of the Restricted Set is the same as the attribute type.</li> </ul>



In the field ..	Fill In the ..
	<ul style="list-style-type: none"> <li>For <b>Document Reference attributes</b>, you will have only <b>Prompted</b> as the <b>value</b>.</li> </ul>

5. If you are creating a **document reference** specification:

Options	Description
<b>Values</b>	will be set to <b>Prompted</b> by default.
<b>Versions and Revisions</b>	<p>Use this field to point to the exact version of the document you need as the document reference link. This is especially useful when you want to point to an approved version. By default, it points to the latest version, but you can set this to:</p> <ul style="list-style-type: none"> <li><b>Latest Version:</b> When you select this, the document reference link will be updated to the latest version of the document.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;">  <b>Note:</b> When you update the referred document, the document link will point to the <b>latest version</b> regardless of the <b>Change Properties</b> permissions in the <b>Project &gt; Security</b> tab.         </div> <ul style="list-style-type: none"> <li><b>Selected Version:</b> Use this setting if your document reference link should point to a certain version always. In this case, the document reference will not be updated to point to the latest version when a new version of the reference document is uploaded.</li> <li><b>Selected Revision:</b> When you choose this, the document reference will always point to the latest version of the selected revision.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;">  <b>Note:</b> When you update the referred document, the link will source the latest version of the <b>selected revision</b> regardless of the <b>Change Properties</b> permissions in the <b>Security</b> tab.         </div>
<b>Reference Category</b>	To apply a <b>reference category</b> to the document reference, select from the drop down listing all the <b>attribute categories</b> .

Options	Description
	<div style="float: left; margin-right: 10px;">  </div> <p><b>Note:</b> Rich text attributes and document reference attributes cannot be used as reference attributes.</p> <p>You can use a <b>reference category</b> (which is an <b>attribute category</b>) to assign certain attributes to the document reference link. This is very useful when the property is not linked to the product or the component specifically. You can use <b>reference categories</b> to specify properties of the reference links.</p>

### Edit or Delete Specifications

- To edit a specification, click **Task Types > Specifications**. Click the name of the specification and edit it as desired.
- To delete a specification, click **Task Types > Specifications**. Select the specifications you want to delete and click **Delete** in the **Actions** menu.

### Synchronizing Specifications with Project Attributes

You can use **Task Specifications** to ask project members to supply values for Project's attributes or to assign Roles.

You can **Synchronize Project attributes with Task specifications** when the tasks are completed.



**Note:**

- While the task is running, **project attributes** and **task specifications** can be different. This is indicated by the ! warning.

You can also [assign a role using task specifications](#).

**1. Enable Synchronize Project Attributes and Task Specifications** option to:

- automate the process of filling the Project Attributes if they are empty
- or to copy the values from Project Attributes to the Task specifications



**Note:**

- This function works without the user having the necessary **Change Properties** right at the Project level. This allows you to give a user temporary permission to change the Project Attributes.
- If the project attribute is blank, task specifications set in the previous sessions will be saved.

- The Specification values in the Task Execution Page will be filled with the Project Attribute values when the Specifications are empty and when the Task Specification is read-only.

- When the task is completed, the changed Specification Values will be copied to Project Attributes
- When a Task is saved without completing it, the new Specification value will be remembered, but not Project Attribute Value will not be updated.



**Note:** A warning sign will indicate that the Attribute values differ from the Specification value. You can choose to change the Attribute value to the new Specification value.

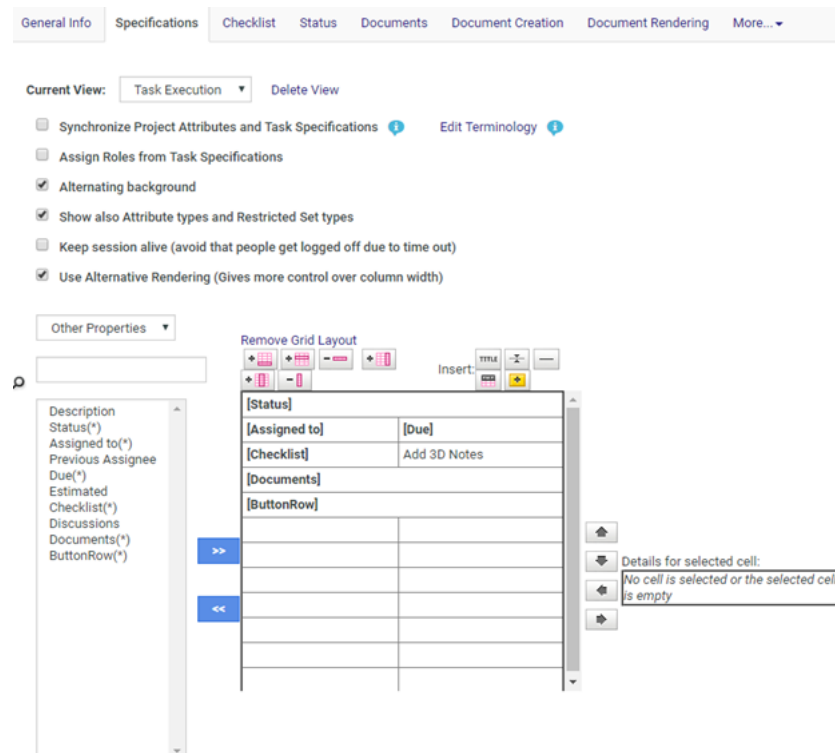
2. Optionally, enable **Update empty values**. This option is only available when the **Synchronize Project Attributes and Task Specifications** option is on.

This will result in clearing of the Project Attribute values if the corresponding Task Specifications were left empty when the Task is completed.

### Task Forms (Task Execution View)

You can fully customize your Task Execution Form (just like [Project Creation Form](#) in WebCenter. This way you can have a uniform customized look for a Task Execution Page. To configure a custom form, you can combine **Specifications** with Task Properties in a dedicated **Task Execution View**.

1. Go to the Task Type's **Specifications** page and **Add Task Execution View**.



Your Specification page will load all the default Task Properties in the default order.

2. Use << to remove Properties (just like Specifications). It is also possible to remove these properties from the form, add them again or place them between the Task Specifications. You can customize these properties just like **Specifications**. See [Grid Layout](#).

Keep the following in mind when customizing Properties:

- You can show and hide fields or sections based on attribute values
- You cannot specify them as Read-Only or Required
- You can customize the label or image including their position (left or top).
- You can add Style to these Properties
- You can define the Column Span for them.

When the Task Execution view is defined in the Task Type's Specification, this view (with custom Task Properties) will be loaded on the Task Execution Page. When this view is loaded the whole page will look like one continuous form.

The screenshot shows a task execution interface. At the top, there is a 'Status' dropdown menu set to 'In Progress'. Below it, 'Assigned to' is set to 'Me' and 'Due' is 'Jun 23, 2016 at 4:30 PM'. A 'Checklist' section contains a table with columns 'Name', 'Completed by', and 'Completion date', and three items: 'No Bleeding', 'Check media Box', and 'Logos are up to date'. To the right of the checklist is a 'Rich Text' area for 'Add 3D Notes'. At the bottom, there are buttons for '+ Upload', '+ New', '+ Link', 'Return', and 'Complete Task'.



**Note:** Use caution when configuring a Task form:

- If you remove the ButtonRow from the view, you will not be able to save the Task.
- If certain sections are not enabled, but are configured in the Task Execution View, they will not be shown in the Task Execution View

### Edit Terminology

It is possible to change the terminology used in Task Execution page so that it talks about "Designs" instead of "Documents", or "Attributes" instead of "Specifications", for example...



**Attention:** Your custom terms will not be automatically translated, and will show **as you enter them** for all languages in which you run WebCenter.

You can achieve this by customizing the terminology in the Specification page of the Task Type. To edit the terms:

1. Click **Edit Terminology** in the **Specifications** page

The 'Edit Terminology' dialog box has a title bar with a close button. Below the title, it says 'Change terms in all Task Execution Page Forms for this Task Type'. It contains a table with two columns: 'Default Term' and 'New Term'. The rows are: 'Specifications' (mapped to 'Attributes'), 'Task Discussion' (empty), 'Task Documents' (mapped to 'Designs'), and 'Checklist' (mapped to 'Items'). The 'Checklist' row is highlighted with a blue border.

Default Term	New Term
Specifications	Attributes
Task Discussion	
Task Documents	Designs
Checklist	Items

2. Specify the new terms next to the default terms.
3. Click **OK**.

### Document Reference Task Specification

You can use a **Document Reference Attributes** as **Specifications** to refer to a document that is located within another project or a document library. You can add documents to tasks this way as references instead of copying them into tasks.

When you create such a **task specification**, select the **specification type** as **document reference**.



**Note:** You can use your **document reference attributes** as **task specifications** if you have checked **Attribute is also a task specification**.

Read more in:

- [Document References](#) on page 373
- [Create a Document Reference Attribute](#) on page 374
- [Edit a Document Reference Attribute](#) on page 378
- [Copy Document References](#) on page 412

### Edit Checklist

Checklists can be added to a task type. Checklist items can be things you want the operator to check off before marking the task as completed. Another typical usage is to list subtasks.

Checklist items have no due dates but the system does track the day and user that checked off the checklist item, in this way enforcing responsibility.

1. Navigate to **Checklist** tab in **Edit Task Type**.
  - If you select **Finish task if all steps from checklist are completed**, it may not be possible to complete a task of this type without having checked off all the checklist items.
  - You can also decide that **Only a task assignee can check off checklist items**.
2. Choose **Add checklist items** to open Add Check Items text box. Enter items and **Finish** to save.



**Note:** You can create an empty checklist (with no checklist item) but in this case do not select **Finish task if all steps from checklist are completed**, as otherwise tasks of this type can never be completed!

### Add Task Statuses

Tasks have three statuses by default: **Created**, **In Progress** and **Completed**.

Adding more statuses improves the accuracy of task progress. This comes in addition to the estimated date.

The task status is reported in all task overviews. Task statuses can have high-quality icons. This allows making these overviews much more visual.



**Note:** Only Administrators can create task statuses but the task type owner can select task statuses from the list.

Task statuses have a sequence and this sequence is automatically adopted by the task type.

- To create new task statuses, as an Administrator:

- Click **Task Types > Statuses > Add Status**.
- Type names of extra statuses and browse for an icon.

If you don't add an icon, the name of your status will be displayed in the status column (so avoid long names or use icons). Icons can be jpg/jpeg, png, gif, bmp file type. They are put without any scaling in the task column so you should be careful not to use large icons. Good sizes are between 15 and 30 pixels high and between 15 and 130 pixels wide.

Using wide icons allows showing progress very visually as in the example below:



- Click **Finish**.
- To add task statuses to a Task Type, as a user with the **User Can Create Task Type** privilege:
    - On the **Task Types** page, click your Task Type.
    - Go to the **Status** tab and click **Add Status**.
    - Select the status you want to add and click **Finish**.

### Document Sources in Task Type

Use the **Document Creation** tab to setup the document creation settings. You can configure custom document upload options (in Tasks) this way.

- Default**

The default document creation options will be:

- Browse**
- Copy**
- New** (when a template library is configured)




**Note:** **New** document creation is only possible if a **Document Template** library is linked in this template. Read more in: [Create Document Templates](#) on page 172.

- Custom**

When you select this, you will see a list of customizable options:

Source	Where the document will be sourced from.
Label	The link description. You can create a custom label, such as Upload a graphic file. <ul style="list-style-type: none"> <li><b>Standard</b></li> <li><b>Simple</b></li> <li><b>Translated</b></li> </ul>
Details	Additional information such as:

	<ul style="list-style-type: none"> <li>• <b>Allowed Extensions</b></li> <li>• <b>Document Template Selector</b> Here you can select the already specified document templates. Read also: <a href="#">Document Templates</a> on page 171</li> </ul>
Operation	The operation depends upon the <b>Source</b> button. For example, if you have chosen <b>Project+Folder</b> , the operations would be Copy, Move or Link the document
Sections	<p>The configured upload source is made available in these sections. By default, all the options will be available and enabled. You can deselect the sections to disable some of the locations.</p> <ul style="list-style-type: none"> <li>• the <b>Project Creation Documents</b></li> <li>• the <b>Project Creation Bill of Materials</b></li> <li>• <b>Bill of Materials</b></li> <li>• <b>Upload (Copy or Create Multiple Documents)</b></li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> You can also drag and drop multiple files onto an Upload button.         </div>
Target Folder	The destination folder

When a task is created from this kind of a task type, you get custom upload options in the task execution page.



**Note:**

If the task type does not have a **document creation** setup, the setup defined by the task's project is used as the upload options.

### Define Task Documents Settings

Use the documents settings to define the relationship the tasks created from this task type will have with documents.

1. Select **Allow attached documents** if you want to be able to attach documents to the tasks of this task type.

Selecting this makes the other settings available. You can also customize document upload options in the **Document Creation** tab. Read more in [Create a Task Type](#) on page 836

2. If the goal of the task is to produce one or more document, you can choose to **Only allow task to complete if it has one or more attached documents.**

If the document(s) need(s) to be approved, you can also choose to:

- **Complete task automatically when all documents are approved,**
- **Only allow task to complete when all attached documents are approved.**

3. You can also select **Start approval cycle on attached documents** to start an approval cycle automatically when documents are uploaded to the task.

This uses the approval settings defined for the project the task is in (or the folder the document is uploaded into, if it has approval settings defined).



**Note:** If neither the folder nor the project has approval settings defined, the approval cycle will not be started automatically.

4. You can also choose to automatically **Assign Attribute Category to uploaded documents**. Select the attribute category to use in the drop-down menu.



**Note:** If the task has specifications that are also attributes, you can use this to assign those specifications / attributes to the task documents as well.



**Attention:** When linking documents that already have an attribute category to the task, the existing attribute category will not be replaced by the one you select here.

5. If you want the documents to be uploaded to a predefined folder, you can enter the name of that folder in the text field.



**Note:** This default folder will only be used if there is a folder in the project with that name.

6. If:

- the specifications used in the task are also attributes,
- those attributes are assigned to the document(s) attached to the task,

Select **Automatically update attached documents attributes from task specifications** to update the values of the document(s) attributes with the values that the task assignee fills in for the task specifications.



**Note:** The update happens once the task is completed.

7. Click **Save**.

## Define Task Discussions Settings

To allow project members to start discussions on all task created from the particular task type

1. Select **Allow discussions**. By default, this option is not selected.
2. On selection , **Discussion Context** drop down list is displayed. You can choose one of the following options:
  - **Current Task** : This is the default option enabled. The discussions in the task are created and visible in the current task.
  - **Parent Workflow**: If the task is part of a workflow, the discussions in the task are created on the parent workflow. The discussions are visible in all tasks of the parent workflow with this setting. The discussions are visible in the parent workflow task if the task type of the workflow has the setting set to "current task" or if the workflow task has no parent.
  - **Root Workflow**: If the task is part of a workflow the discussions in the task are created on the top level workflow task of the task. The discussions are visible in all tasks in the workflow that have this setting, and all first level child tasks of the root workflow that have the Parent Workflow Discussion Context.



- **Project:** The discussions created in the task are Project Discussions. All Project Discussion are shown in the task.
- 3. Choose the requisite option.
- 4. Select **Show Discussions of Documents linked to the Task** to view the discussion of documents linked to the task.
- 5. Click **Save**.

### Delete a Task Type

1. Click **Task Types** on the main menu.
2. Select the task type(s) to delete.
3. Click **Delete** in the **Actions** menu.



**Note:** You can only delete task types that are not used in a task.

### Copy a Task Type

You can copy an existing Task Type. To do that

1. Click on the Task Type. From the Task type's details page, click **Save as Copy**
2. Specify a unique name.

The following details are copied:

- Basic settings of the task type:
  - Description
  - Estimated duration (days + hours)
  - Restrict Assignees
  - Automatically delete option
- Document settings, including the name of the default document category
- Discussion settings
- Checklist items + settings
- Specifications including the layout and the order
- Restricted Sets used in Specifications.
- Workflow
- Task Status List, including the name of the icons.



**Note:** The icons are not copied.

- The Document upload configuration setup
- Document Rendering setup

## 4.15.5. Working with Tasks

### Create a Task

1. Click the **Tasks** tab in your project.



**Note:** If you don't have a **Tasks** tab, you probably do not have the Task Management license.

2. Click **Create New Task**.
3. On the **Create New Task** page, select the **Task Type**.

To know how to create custom task types, see [Task Types](#) on page 835.

4. Choose a **Status** among the statuses available for that task type.
5. Assign the task to a project member or user group using the **Assigned to** list.



**Note:** If you assign a task to a user group in WebCenter, all members of this group will see the task show up in their My Work pages, and they will all receive notification e-mails (if set up by your site Administrator). Any member in the group can then take on the task and complete it.

6. Enter a **Name** and **Description** for the task.
7. If this task needs to start after another (already created) task, you can **Add predecessor(s)**: hover over **Add predecessor(s)** and select another one of the project's tasks as predecessor.

Repeat to add other predecessors if necessary.



**Note:** See [Sequential Tasks](#) on page 862 for more information on tasks' links with their predecessors.

You can also choose to **Automatically link documents from predecessor tasks when task is started**.

8. Define when the task is due: you can use a **Lead Time** or a **Due Date**.

Use **Lead Time** if you know how long the task will take, but haven't calculated a precise due date for it (for example for a task in the middle of a project). This calculates the **Due Date** automatically by adding the **Lead Time** to the current date.



**Note:** The **Lead Time** only takes working days into account.

The **Estimated** field will be mostly used by the task assignee to indicate when he/she expect(s) to have finished the task.



**Note:** By default, Saturday and Sunday is considered as weekend. However, it is possible to switch the weekend days to Friday and Saturday. The due date calculation will ensure that the due date will always be on a weekday. To enable this in your WebCenter system, contact an Esko Representative.

9. Define when to **Start the task**:

- Choose **Manually** if you want the assignee to decide when to start the task him/herself.
- Choose **Automatically at ... (due date minus lead time)** to have the task start automatically a certain number of days (the **Lead Time**) before the due date. This makes sure that the task is automatically started when there is still enough time to finish it.
- Choose **Automatically after predecessors complete** if the task has predecessors, and you want it to be started as soon as they are finished.

- Choose **Automatically after predecessors complete and after ... (due date minus lead time)** to have the task start automatically a certain number of days (the **Lead Time**) before the due date, but only after the predecessors are finished.
- Choose **Automatically after project creation** if you want the task or workflow to be started right after project creation from a template containing this task.



**Note:** If you are making the task start automatically, you can still give the assignee the option to start it manually (select **Assignee can start task manually**).

10. If this task is crucial to the project, you can decide to have its completion change the project's status (for example mark it as **Completed**).

Select **Completion of this task changes project status to** and choose your desired project status.

11. Click **Create**. When the task is created, a log is created in the project history with the Assigned to, Lead time, Due Date, Estimated Date, Description.

## Edit a Task



**Note:** You need the **Change Task** permission to be able to edit a project's tasks.

1. In the project's **Tasks** tab, click the **Edit** link next to a task to go to the **Task Information** page.
2. Edit the task as desired and click **Change**.



**Note:** You can also edit the tasks assigned to you from the task execution page (see [Working on Tasks Assigned to You](#) on page 856) by clicking the **Edit Task Details** link (if you have the **Change Task** permission).

## Restricting a Task to Project Roles or Groups

1. [Create a Task Type](#).
2. In the [Edit Task Type page](#), enable the option **Restrict Task to an Allowed Assignee (Group or Role)** in the **General Information** tab.
  - After enabling this option, you can either select an **Allowed Assignee** role or group in the task type or leave it as **Default to Task Assignee**.
3. **Save** the **Task type**.
4. Click **Create New Task** in the **Tasks** tab in your project.
5. Select the **Task Type** you created.
6. Choose a **Status** among the statuses available for that task type.
7. Select an **Allowed Assignee** (a group or a role). This will restrict the task to that specific group or role.
8. In the **Assigned To** field, you can specify:
  - the **Allowed Assignee** role or group. This field will list all the project members.
  - the members of the **Allowed Assignee** role or group.



**Warning:** If you specify an **Allowed Assignee** in the task type and select a different role / group / project member in the **Assigned To** field, you will get an error while saving.

9. Click **Create**.

Your task is now restricted to the **Allowed Assignee**.

To change the **Allowed Assignee**, go to **Edit Task > Task Information** and select another role or group.



**Note:** You need to be an admin user to be able to change the **Allowed Assignee** of the task.



**Note:** If the **Allowed Assignee** role or group is specified in the **Task Type**, you cannot change it in the **Edit Task** page.

### Reschedule a Set of Tasks

Often, an entire set of tasks must change its due date. Some possible reasons are:

- The project is delayed.
- The project needs to speed up.
- A set of tasks needs to happen earlier or later in the project.
- The entire set of tasks was copied from a template or another project and it needs to be shifted as a whole to be realistic for the current project.



**Note:** You cannot change the due date of completed tasks.

To reschedule your project's due dates:

1. Open the project and select **Tasks**.
2. Click the **Schedule Tasks** link.

You can see all due dates and lead times of the existing tasks but also their **Estimated Finish Date**.

Make estimated dates the new dates
Show Task list (days only) ▾

<input type="checkbox"/>	#	Task Name	Assigned to	Depends on	Status	Old Lead Time	Old Due Date	(Estimated) Start Date	(Estimated) Finish Date	New Lead Time	New Start Date	New Due Date	
<input type="checkbox"/>	1	TL_Router Date sm_Task 1	ADMIN (ADMIN)		<input checked="" type="checkbox"/>	0 days	Jan 13, 2015	Jan 13, 2015	Jan 13, 2015				
<input checked="" type="checkbox"/>	2	TL_Router attribute comparison sm_change project attribute_1		1	<input type="checkbox"/>	0 days	Jan 13, 2015	May 25, 2016	May 25, 2016	<input type="text" value=""/>	days	May 31, 2016	May 31, 2016
<input checked="" type="checkbox"/>	3	TL_Router Date sm_Task 2		2	<input type="checkbox"/>	0 days	Jan 13, 2015	May 25, 2016	May 25, 2016	<input type="text" value=""/>	days	May 31, 2016	May 31, 2016
<input checked="" type="checkbox"/>	4	TL_Router attribute comparison sm_1		3	<input type="checkbox"/>	0 days	Jan 13, 2015	May 25, 2016	May 25, 2016	<input type="text" value=""/>	days	May 31, 2016	May 31, 2016
<input checked="" type="checkbox"/>	5	TL_Router sm_Upload files_1			<input type="checkbox"/>	0 days	Jan 14, 2015	May 25, 2016	May 25, 2016	<input type="text" value=""/>	days	May 31, 2016	May 31, 2016

Project due date:

**Fast operations on the selection**

Shift due dates with  days

Shift due dates to have the latest ending on

Shift due dates to have the first one starting on

Re-distribute due dates to start on

and end on

This can differ from the due date because certain tasks are already overdue, or because due dates were chosen without taking the predecessor tasks' due dates into account.

You can view the lead times in **days only** or in **days and hours**. When choosing **days and hours**, you will be able to refine the scheduling to the **hour** a task should start or finish.

3. To change the due dates, you can either:

- Manually change the **Lead Time** of certain tasks (enter the **New Lead Time** and press **Enter**). WebCenter then calculates a **New Start Date** (if the task isn't started yet) and a **New Due Date** (all the dependent tasks are moved accordingly).

For example if your project is late, you can shorten some tasks' lead times to make sure it still ends at the planned date.



**Note:**

- The **Lead Time** only takes working days into account.
- The fields in yellow show the tasks on the **critical path**. Those are the tasks that directly influence the project's end date (the last task and its predecessors).  
To make the project end sooner, you can shorten the lead times of the tasks in the critical path (in yellow).

- Click **Make estimated dates the new dates**: this takes the **Estimated Start Date** and **Estimated Finish Date** as **New Start Date** and a **New Due Date**.

Use this for example if your project is late and you want to update your planning accordingly.

- **Shift due dates with** a certain number of **days** (select the tasks to change, enter a number of days and click **Try**).



**Note:** Selecting a task automatically selects its dependent tasks too.

You can use this if your project is late, or you can enter a negative number to speed the project up.

- **Shift due dates to have the latest ending on** a certain date (select the tasks to change, enter the due date of the last task and click **Try**). This will calculate how many days the latest task needs to shift (to later or to earlier) and apply the same shift to all others.
- **Shift due dates to have the first one starting on** a certain date (select the tasks to change, enter the start date of the first task and click **Try**). This will look how much the task with the first starting date shifts and apply the same shift to the due dates of all tasks.

This would be typical for a set of tasks of which just one is started. This starting date allows calculating the rest of the track.



**Note:** You cannot move tasks to before **Today**.

- **Re-distribute due dates to start on** a certain date **and end on** a certain date (select the tasks to change, enter the new start and end dates and click **Try**). This will compress the selected tasks' lead times to fit within the given dates.

By default, the starting date is today, and the end date is the project due date.



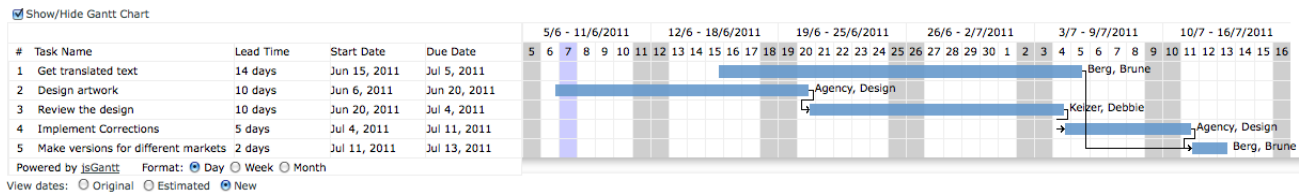
**Tip:** You can also use this to do **backward planning** by only giving an end date and disabling the start date checkbox, or **forward planning** by only giving a start date and disabling the end date checkbox.

- If you are not satisfied with the changes, you can click **Reset** to go back to the original dates. You can then **Try** to change the dates using a different method.

When you are satisfied with the changes, click **Save**. This will send an e-mail notification to the task assignees (if this is configured).

You can also click **Cancel** to return to the task list without saving your changes.

You can also see your tasks in a **Gantt Chart**. You can display them by **Day**, **Week** or **Month**, and you can choose to view the **Original**, **Estimated** or **New** dates.



**Note:** You can also **shift due dates** from the project's **Tasks** page: select the desired tasks and click **Change Due Date** in the actions menu.

### Task Discussions

You can start a discussion on a task by clicking **Edit Task Details** then **Discussions**.

Task discussions work in the same way as document discussions.

Read more on how to enable **Task Discussion** [Enabling Discussions in Task Type](#) on page 316

## 4.15.6. Working on Tasks Assigned to You

To work on a task assigned to you, you can either:

- click the link to the task in the notification email you received,
- click the task name in the **My Tasks** section of your **My Work** page,
- in the project details page, click the **Tasks** tab then the name of the task.

This opens the task execution page.



Task: Design New Chocolate Ice Cream Packaging Project: Chocofun Project Details Edit Task Details

**Start Task** Return Complete Task

Status Created



Assigned to <Nobody>

Due Jul 1, 2016 at 12:00 PM

Estimated    

**Task Documents** Upload Multiple Documents

+ Upload + Link

**Discussion**  

**Start Task** Return Complete Task

### Start a Task

- On the task execution page, click the **Start Task** button. This sets the task status to **In Progress**.

### Upload Documents to the Task

On the task execution page:

- In the **Task Documents** section, click one of the options in the **Task Documents** section. You can either:
  - Upload a document saved on your computer or network (use **Upload / Browse**),
  - Link a document already existing in the project to the task (use **Link**),
  - Create a document placeholder from a document template (use **New**).



**Note:** This is only available if the project has been created from a project/template containing document templates.

This is similar to the general upload document page. For more details, see [Uploading a Document via Upload](#) on page 610.

- Choose the project **Folder** in which to upload the document.
- Click **Change**.

You can also **Upload Multiple Documents** (see [Copy / Create Multiple Documents](#) on page 613 for more information).

### Download a List of Documents from the Task

To download documents from the task execution page:

- Select the documents to download and click **Download** in the **Actions** menu.
- If you selected a single document (that you have download rights for), it will be downloaded directly.
- If you selected several documents, you will get a ZIP archive containing all the documents you selected and for which you have download rights.



**Note:**

- If you don't have download rights for any selected document, you will see an error message.
- If you selected CAD files as part of a multi-document download, they will be downloaded in the native perspective.

### Change the Task Status

When you are working on a task, you may want to change its status to reflect the task progression (especially if the task was created from a task type with many precise statuses).

On the task execution page:

1. Choose the **Status** to give the task.
2. If the task contains a **Checklist**, mark some checklist items as done if necessary.
3. Click **Change**.

### Complete a Task

Once you have completed a task, do the following to mark it as **Completed** in WebCenter.

On the task execution page:

1. If the task contains a **Checklist**, mark the checklist items as done.
2. If the task contains **Specifications**, fill them in as needed.
3. If the task type allows **Discussions**, you can add a comment if you wish.

Click **Start a New Discussion** if there is no discussion yet, or **Reply** if there is one, enter your **Message**.

4. Click the **Complete Task** button.

This sets the task status to **Completed**.

## 4.15.7. Overview of My Group's Tasks

**My Group's Tasks** lets the **Group Manager** quickly view the tasks assigned to their group or group members. It also allows to assign, re-assign, or distribute the tasks among the group members.

If a group member is ill or not available, the Group Manager can re-assign the task to an other group member. A Group Manager can also monitor the progress on a selected Group or Group Member. Using the filter options, the Group Manager can have a quick overview of the workload.



## Group Task Manager

Every department has a Department Manager. In WebCenter Department Manager are referred to as **Group Manager**. A group can have any number of Group Managers including 0. Group Manager is always part of a group.

A Group Manager likes to view the tasks assigned to a selected group or group members, which will assist him in distributing the tasks and also get a quick view on the current status of a task.

The **My Group's Tasks** feature allows Group Managers to:

- View task assignments for a selected group and the workload overview.
- View tasks assigned to a group member and the workload overview.
- Re-assign any task assigned to a group member.
- Review the task overview filtering on status and due date.

## Using My Group's Tasks

To access **My Group's Tasks** feature, log in as Group Manager. Click **My WebCenter > My Group's Tasks** to view the **Group Tasks for Group** page.

## Viewing Task Assignments

You can view the tasks assigned to a selected group and also for a group member within the group.

1. The task list for assigned group appears.



**Note:** If a Group Manager manages or is assigned to multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. In the **Tasks assigned to** drop-down list box, select the group or group member for whom you want view the task assigned.
3. A task list assigned to the selected group or group member appears. Also in the list are:
  - Task Name
  - Project Name
  - Assigned to
  - Status
  - Lead Time
  - Due Date
  - Created Date
  - Started Date
  - Estimated Date
  - Task Documents

## Viewing a Workload Overview

During editing/re-assigning, the Group Manager can have an overview of number of tasks assigned and how many are overdue. The Task Count is the number of assignments assigned to a group member. The Task Count displayed is based on the filtering criteria and tasks with past due-date always appears. The non-active projects do not appear and are not counted.

1. The task list for assigned group appears.



**Note:** If a Group Manager manages or is assigned to multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. The workload overview appears for the selected group.

Search Tasks		Sort by	Due Date	Status	All but Completed
Members	Task Count				
DEKE_DEPENDENCIES	Before: 1(1 overdue)	After: 1(1 overdue)			
ArtiosCAD, ArtiosCAD (ARTIOSCAD)	Before: 0(0 overdue)	After: 0(0 overdue)			
deke_user2 (DEKE_USER2)	Before: 0(0 overdue)	After: 0(0 overdue)			
il, pm (IL_PM)	Before: <span style="background-color: red; color: white;">61</span> (61 overdue)	After: <span style="background-color: red; color: white;">61</span> (61 overdue)			
Keizer, Debbie (DEKE)	Before: <span style="background-color: red; color: white;">138</span> (138 overdue)	After: <span style="background-color: red; color: white;">138</span> (138 overdue)			
prma (PRMA_USER2)	Before: 0(0 overdue)	After: 0(0 overdue)			

If the task is past the due date, it appears in red.

### Reassigning a Task

A Group Manager can re-assign a task to a group or a group member. A task can be re-assigned only to a group member within the same Group. In addition to this when the task is reassigned, the WebCenter UI displays the previous assignee in **Previous** column.

1. **Note:** Ensure to log in as **Group Manager**.

1. The task list for assigned group appears.



**Note:** If a Group Manager manages or is assigned to multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. Select the new assignee in the **Assigned** to drop-down list box. This list contains group and group members name.
3. WebCenter shows changed tasks with a yellow background indicating the change.



**Note:** Even if a task is not initially assigned to a group, the Group Manager has all the rights to re-assign the task to a group member.


4. Click **Save** to commit the changes.

### Filtering Based on Task Status and Due Date


A Group Manager manages multiple tasks at a time and this might lead to delay. Using the **Search Tasks Status**, one can see tasks in a more specific status.

For example, you can filter the tasks which are in Completed or In Progress status. By filtering the task, a Group Manager need not re-assign completed tasks or tasks which cannot start because a predecessor is not complete.

Similarly the tasks can also be filtered by **Due Date**. This gives a Group Manager a quick view of the task for the required time line. Using this information Group Manager can view what is due this week or this month to make the required planning.


1.  **Note:** Ensure to log in as **Group Manager**.

1. The task list for assigned group appears.

1.  **Note:** If a Group Manager manages multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

2. In the **Search Tasks Status** drop-down list, select the desired task status.

3. In **Due Date**, select the required due date and then click **Go**.

3.  **Note:** To set the Due Date filtering, setting a task status filter is not necessary. The Due Date changes to completion date, if the task status is filtered to completed.

The following are the default due dates settings available:


- All
- Today
- Next 3 days
- Next week
- Next 2 weeks
- Next month
- Next 3 months
- Overdue
- Week overdue, all the tasks which are overdue for less than five days.

### Filtering Based on Column

By clicking a column header, the Group Manager can view tasks for a selected group in ascending or descending order.

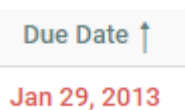
For example, if **Due Date** is selected then the tasks for the selected group appears with the earliest due date. Similarly if **Due Date** is clicked again, then the tasks for the selected group appears with the latest due date.

1. Log in as **Group Manager**.
2. The task list for assigned group appears.

2.  **Note:** If a Group Manager manages multiple groups, WebCenter displays the list of managed groups. You can only view the tasks for one group at a time.

3. Click a column header, for example **Due Date**, to sort on this column.

The sorting is indicated by an arrow. For example, if Due Date is selected then it would appear as:



## 4.15.8. Sequential Tasks

### What is a sequential task?

Tasks can be made dependent on each other. You can define predecessors for a task, which automatically chains tasks to each other.

For example, if you create a "Review the final design proposal" task for a member, and then add a second task called "Implement design corrections" that has the "Review" task as a predecessor, you can make sure that the "Implement design corrections" task starts automatically when the "Review" task has been completed.

### Starting tasks: options

Tasks can be set to start:

- Manually (the member changes the task status manually).
- Automatically, depending on the due date and lead time (in working days).
- Automatically, depending on the completion of the predecessor task(s).

**Note:**

If the **Due Date** is different from the **Due Date** of the predecessor plus the **Lead time** (i.e. the earliest the task can be finished), the **Reset Start Date** button will appear. Clicking this button will set the **Due Date** to the **Due Date** of the predecessor plus the **Lead Time**.

This option is only available if the task is in **Created** status, and if the **Start Task** is set to **Automatically after predecessors complete**.

- A combination of the above options.

Also, task completion can change the project status.

## 4.15.9. Linking Documents to Tasks

One of the strengths of Task management is the ability to link documents to tasks.

Documents always sit in a folder in a project. The link to Tasks is optional and comes on top of the positioning inside a folder.



**Note:** If a default folder was defined in the Task Type setup, new files will automatically be uploaded to that default folder. The user can still change the folder manually in the upload dialog.

You can also attach a document table to your Task Type. This gives you multiple referenced documents in the Tasks. You can use the [Document Rendering](#) on page 864 tab to attach multiple documents (for example, a copy sheet) to a Task Type's tasks.

## Why Link Documents to Tasks?

Linking a document to a task gives purpose to the document. Without task management, the purpose of the documents in a project is implicit. You typically figure out what they represent through their name, through their Attributes, or through the name of the folder they are in.

Most documents linked to a task are one of the following:

- The result of the task. Creation type tasks end normally with a digital asset resulting from the creative work. Good examples are ArtiosCAD .ARD files, or PDF files etc.
- The “current state” of the task. When the task is not yet completed, you can already show what you have by linking the current version of the document to the task.
- A specification as a separate file. Although tasks can have structured specifications, it is possible that you want a complete document to specify the task. You can then upload that document and link it to the task.
- The input for a task. Creation of graphics for packaging demands a definition of the cutting shape. So you can link the .ARD file to the graphics creation task or upload it to the task.
- Collateral information.



**Tip:** Documents can be linked to multiple tasks. A typical example is where the same document is the result of a first task and the input for a second task.

## Documents Tab

In this tab, you can configure how documents are handled in a **Task Type**. See the options below:

- **Allow Attached Documents:** Enable this option to allow attached documents.
- **Show link to Multiple Upload:** This option is to streamline handling of tasks that do not require any documents. It is common when a task is used to fill specified values (specifications) and/or fulfill defined checklist only.

**Upload Multiple Documents :** Disable this to hide the button from the task execution page.



**Note:**

- **Only allow task to complete if it has one or more attached documents:** When this is checked, you have the extra options:
  - **Complete task automatically when all documents are approved**
  - **Only allow task to complete when all attached documents are approved**
- **Start approval cycle on attached documents**
- **Assign Attribute Category to uploaded documents**
- **Automatically update attributes for attached documents from task specifications**
- **Set default folder for uploaded documents**

## Link a Document to a Task

There are multiple ways of linking a document to a task:

- From the documents overview, select the document(s) and click **Link to task(s)** in the **Actions** menu. This allows you to quickly associate multiple documents with multiple tasks

- Within the task details, click the **Documents** tab and then click **Link document(s)** in the grey bar. Select the document(s) to link.
- You can directly upload a new document to a task. In the task details, click **Documents** and then click **Upload Document**. This will give you the well-known upload dialog, but you will immediately create a link to this task.

### Find Documents Linked to a Task

- In the task, click **Documents**. This shows what documents are linked to this task and it also shows their version, description and approval state.
- In the tasks overview, there is a **Task Documents** column showing the names of the documents linked to this task. Clicking a document name brings you to the document.
- In the documents overview, there is a **Tasks** column. Clicking a task name brings you to the task.

### Document Rendering

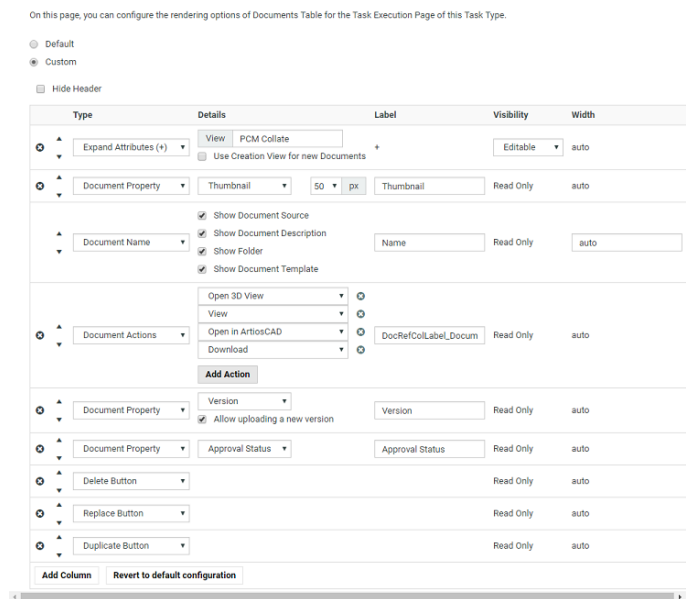
You can create **Custom** document rendering options in a Task Type's **Document Rendering** tab.

There are two options in this page.

- Default (this is selected by default). See the example of a **Default Rendering**:

Thumbnail	Name	Version	Approval Status
	01 Normal Permission.wcc	1	
	01 Requester.wcc	1	
	1Product-Feature.wcc	1	

- Custom



To create a customized document table in the Task Type:

- Enable **Allow Attached Documents** in the **Documents** tab. This option is disabled by default.
- Select **Custom** in the **Task Type > Document Rendering** tab to configure the document table. The options available are exactly the same as Document Reference Rendering. Read details about the options in the [document references section](#).
- Configure your table options.

You can attach a [copy sheet](#) in a task type this way. This allows you to send a copy sheet to edit, translate or approve in a task (therefore automate it in workflows). If you are attaching a copy sheet, also configure options for [Text Documents](#).



**Note:**

You can configure Master Text and Translation Text widgets to appear in the Text document table.

Read more in: [Creating a Copy Sheet](#) on page 398

- Remember to **Save**. Only then it takes effect.


Documents section of all tasks created from this Task Type (old and new) are affected by the changes saved on this page. See an example of a Task Document Rendering (Artwork with its copy sheet) below.


Task: Collate Project: PCM New Template 00008 Project Details Edit Task Details

**Return**

Description: Validate the text statements

Status: Completed



Completed by:  Martinez, Teresa (TEMA)

Previous Assignee:  PCM\_CONTENT MANAGER

Due: Jun 16, 2016 at 3:40 PM










Completed: Jun 16, 2016 at 3:48 PM

**Task Documents**

Thumbnail	Name	Version	Approval Status
	GET SET_MULTIVITS_CARTON_2.ai	1	

Marketing:

**+ New** **+ From Library**

Instance (6S1)	English - United States	Spanish - Spain (Traditional)	Version
 1	 GET IT NOW!	 ¡Consíguelo ahora!	3
 2	 ONE-A-DAY 56 TABLETS INSTRUCTIONS Adults: Take only one tablet every day. Do not exceed the	 UNO-A-DIA 56 comprimidos INSTRUCCIONES Adultos: Tomar sólo una tableta cada día. No exceda la dosis recomendada. Este	3
 1	 10-A-DAY	 10-A-DAY	3

### Create an Advanced Table Rendering



Adding an advanced table of document references allows you to customize the way your document will be shown to users when they are applied (For example, in a template).

It also allows you to configure advanced features such as making an attribute of the document **required** or **read only**.



**Note:** The document reference attributes will inherit the **style** specified in the **attribute category**. This style is further expanded to the individual document's attributes as well.

- Click **Use Grid Layout** in the **Edit Category** page. Add your document reference attributes.

Reference Category:	No Reference Category selected
Version Mode:	Latest Version
Document Source(s):	Components_Default  <a href="#">Edit Configuration</a>
Rendering:	Table  Components_Default <a href="#">Edit Render Configuration</a>

- Select the **Rendering** as **Table** in the *grid layout*.

In the **Edit Render Configuration** dialog, you can set up the advanced rendering.

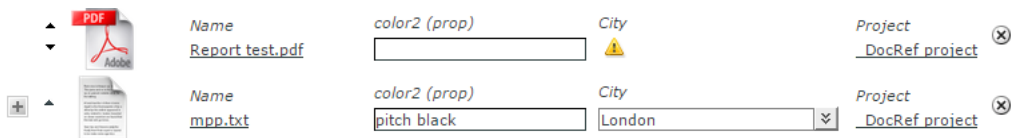


**Note:** You can create *custom tables* for your different views.



- Enable **Hide Header** if you do not want a header row in the document references table. The labels will be displayed in line for each document.
- Enable **Allow Bulk Operations** when any action performed on the document reference is also cascaded to all the references which are made to that particular document reference. Actions performed on the document reference could be to
  - Remove a Referenced document which removes all the document references in the tree structure
  - Replace and Undo
  - Getting document to Local and Undo action
  - Upload a new version and/or edit a text statement
  - Update to the latest version
- Enable **Limit Bulk Operations to Document References with matching Operations configured**, when you want to perform bulk operations on document rows which are filtered based on document sources and actions configured for them. Read more about [bulk operations](#).

User is informed about the number of rows the bulk operation will be really performed (after filtering) in the specific bulk operation modal dialog.



- Enable **Open Links in new Tab** , to open any link in the document reference in a new tab.
  - Click **Add Column** to add more columns to the table.
- The rows in the **Edit Render Configuration** pop-up correspond to your document reference columns.

**Edit Render Configuration**

Name: DocRef3\_Default

Hide Header  
 Open Links in new Tab  
 Allow Bulk Operations  
 Limit Bulk Operations to Document References with matching Operations configured



Type	Details	Label	Visibility	Width	Collapse
Reference Property	INSTANCE_SEQUENCE	INSTANCE_SEQUENCE	Editable	auto	<input type="checkbox"/>
Up/Down			Read Only	auto	<input type="checkbox"/>
Document Property	Thumbnail 50 px	Thumbnail	Read Only	auto	<input type="checkbox"/>
Document Name	<input checked="" type="checkbox"/> Show Document Source <input checked="" type="checkbox"/> Show Document Description <input checked="" type="checkbox"/> Show Folder <input checked="" type="checkbox"/> Show Document Template	Name	Read Only	auto	<input type="checkbox"/>
Document Actions	Open 3D View View Open in ArtiosCAD Download <input type="button" value="Add Action"/>		Read Only	auto	<input type="checkbox"/>
Document Property	Version <input checked="" type="checkbox"/> Allow uploading a new version <input checked="" type="checkbox"/> Allow updating to latest version	Version	Read Only	auto	<input type="checkbox"/>
Local/Remote Project	Project Folder Name <input type="checkbox"/> Copy Text Content Status		Editable	auto	<input type="checkbox"/>
Replace Button			Read Only	auto	<input type="checkbox"/>
Delete Button			Read Only	auto	<input type="checkbox"/>

- Select **Type** as **Document Name** which is a mandatory field. In the **Details** section, you can disable:
  - **Show Document Source**
  - **Show Document Description**
  - **Show Folder**
  - **Show Document Template**

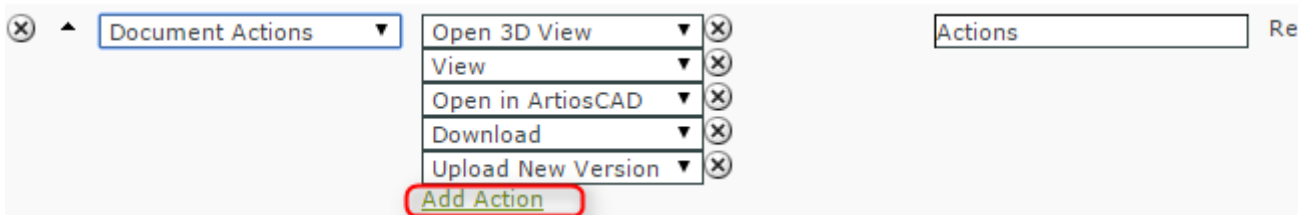
Your rendering will have a hyperlink to the document depending on the user permissions. These options are additional details added to the document and can be viewed only when a new document is added.


[box\\_sprint2.ard](#)



- Depending on how your **document properties** should be rendered, configure the table columns. You can create custom **Labels** for your selections. The properties will be displayed as **read-only**.

Choose Document PropertyDetails as...	The result in the rendering table will be...												
<ul style="list-style-type: none"> <li><b>Description</b></li> <li><b>VersionRevision</b></li> <li><b>VersionAuthor</b></li> <li><b>Project</b></li> <li><b>ApprovalStatus</b></li> <li><b>ApprovalStage</b></li> <li><b>ModifiedDate</b></li> <li><b>Thumbnail</b></li> </ul>	<p>The selected document properties will appear in the table header with the custom <b>label</b>. For example:</p> <ul style="list-style-type: none"> <li>the current Approval Stage of the document. The user can click to access the approval pop-up.</li> <li>Clickable thumbnail of the document with the default (50x50) or specified pixels.</li> </ul> <table border="1"> <thead> <tr> <th>Version</th> <th></th> <th>estado de aprobación</th> <th>etapa de aprobación</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>⊗</td> <td>🔄</td> <td>Stage2</td> </tr> <tr> <td>1</td> <td>⊗</td> <td>✅</td> <td>Etapas 3</td> </tr> </tbody> </table>	Version		estado de aprobación	etapa de aprobación	1	⊗	🔄	Stage2	1	⊗	✅	Etapas 3
Version		estado de aprobación	etapa de aprobación										
1	⊗	🔄	Stage2										
1	⊗	✅	Etapas 3										
<p> <b>Tip:</b></p> <ul style="list-style-type: none"> <li>Create custom <b>labels</b></li> <li>Specify the pixels for your <b>thumbnail</b>.</li> <li>Check the box <b>Allow uploading a new Version</b> button</li> </ul>	<ul style="list-style-type: none"> <li><b>Upload New Version</b>  if you have the rights to upload will be available in the <b>Version</b> column.</li> </ul>												

- You can configure **document actions** in the table rendering of the document references. The actions will appear next to the documents listed in the table only when it is relevant.



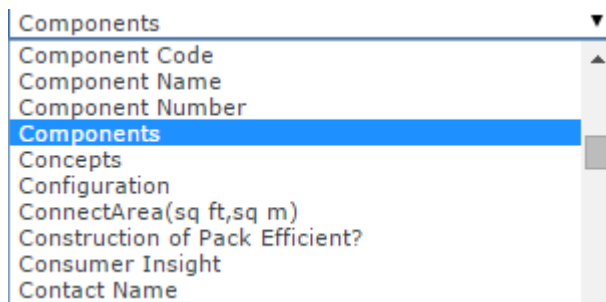
Choose Document Actions as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li><b>View</b></li> <li><b>Open in 3D</b></li> <li><b>Open in ArtiosCAD</b></li> <li><b>Download</b></li> </ul>	<ul style="list-style-type: none"> <li>A 3D  button will be available only when there is an existing 3D perspective.</li> <li><b>Open in ArtiosCAD</b> option will be available for CAD files. Clicking on it will open the CAD document as set up in the <b>preferences</b></li> </ul>

Choose Document Actions as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>Upload New Version</b></li> <li>• <b>Update to Latest Version</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Download</b> option will be available when the user has download permission.</li> <li>• <b>Upload New Version:</b> This is available when the user has the rights to upload new version.</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p> <b>Note:</b> The <b>Upload New Version</b>  button can also be placed in the Version column by checking the <b>Allow uploading a new version</b> check box.</p> </div> <ul style="list-style-type: none"> <li>• <b>Update to Latest Version:</b> Allows user to update to the latest version</li> </ul>



**Note:**

- If you change the **attribute** values during the upload of a new version, these are only applied on the new version of the document. The previous version will have the old attribute values.
  - If a document version is linked in multiple projects, all linked projects will get the new document version.
  - If the configured columns do not fit in the table, the table will assign each column its minimum width and show a horizontal scroll bar.
- Configure how your **Document attributes** should be displayed. Select the relevant **attribute** from the drop down as a specific column (with a custom **Label**) in your table.



Specify the Visibility of the attribute as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>Editable</b> if you want the users (with the right permissions) to be able to edit this attribute.</li> </ul>	<ul style="list-style-type: none"> <li>• The selected document attributes will be displayed in the table header and its values in the respective columns.</li> </ul> <div style="text-align: center; margin-top: 20px;"> <div style="border: 1px solid gray; padding: 2px 10px; display: inline-block;">Width *</div> <div style="border: 1px solid gray; padding: 2px 10px; display: inline-block; margin-left: 10px;">Length</div> </div>

Specify the Visibility of the attribute as...	The result in the rendering table will be...								
<ul style="list-style-type: none"> <li>• <b>Required</b> if you want to make it mandatory for users (with the right permissions) to fill in this attribute.</li> <li>• <b>Read Only</b> if you don't want any user to be able to edit this attribute.</li> </ul>	<ul style="list-style-type: none"> <li>• The users can type in the values for the editable attributes.</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Weight</th> <th style="width: 40%;">Date</th> <th style="width: 10%;"></th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1g</td> <td style="text-align: center;">May 26, 2015</td> <td style="text-align: center;"></td> <td style="text-align: center;">13:30 ▼</td> </tr> </tbody> </table> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> You can configure the <b>Visibility</b> also at the attribute level. If your settings differ, the most restrictive setting will be applied.</p> </div>	Weight	Date			1g	May 26, 2015		13:30 ▼
Weight	Date								
1g	May 26, 2015		13:30 ▼						

**Tip:** Click **add column** and select another attribute to have more attributes listed in your table.





**Tip:** You can configure a project's **document reference attributes** to be non-editable and still allow the user to edit the **attributes** of the **documents** referenced. Your user can do this from the project's **attribute category** tab.


**Tip:** Optionally, you can setup the **Project > Notifications > Project Attribute/Category change** to receive notifications about document references. **Reference category** changes will be notified according to the **Project > Notifications > Document Attribute/Category change** settings.

• Configure **Expand Attributes** / **Collapse Attributes** button for your document references. This allows you to expand or collapse the **document attributes** of your **references**.

**Tip:** You can configure different **expand attributes** settings for different views. Specify the **view** name here.

**Note:** The check box **Use Creation View for new Documents** is switched on by default. As a result, you will get the **creation view** whenever you use **Upload/ Browse, Copy or New** regardless of the view you are creating the rendering for. If this option is disabled, you will see the specific view or the default view. When you save the view will change to the specified or default view depending on the configuration.


Edit the Visibility as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>read-only</b></li> <li>• <b>editable</b></li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Note:</b> The user needs <b>Change properties</b> right to edit attribute values.</p> </div>	<p>Click  to expand the document attributes (which may also be document references):</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <p><b>Tip:</b> Keep this <b>editable</b>, if your users have to edit the document reference's attributes.</p> </div> <p>When the document attributes are expanded, you can use  to collapse them.</p>

+ -	Thumbnail	Name								
-		BOXCO_00001.ard								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Customer</b> Box&amp;Co. ▼</td> <td style="width: 50%;"><b>Box Brands</b> BoxingBox ▼</td> </tr> <tr> <td><b>Description</b> Blue box for Box&amp;Co.</td> <td><b>CAD Number</b> 1</td> </tr> <tr> <td><b>Display</b> <input type="checkbox"/></td> <td><b>Style</b> spark</td> </tr> <tr> <td></td> <td><b>Length</b> 300</td> </tr> </table>			<b>Customer</b> Box&Co. ▼	<b>Box Brands</b> BoxingBox ▼	<b>Description</b> Blue box for Box&Co.	<b>CAD Number</b> 1	<b>Display</b> <input type="checkbox"/>	<b>Style</b> spark		<b>Length</b> 300
<b>Customer</b> Box&Co. ▼	<b>Box Brands</b> BoxingBox ▼									
<b>Description</b> Blue box for Box&Co.	<b>CAD Number</b> 1									
<b>Display</b> <input type="checkbox"/>	<b>Style</b> spark									
	<b>Length</b> 300									

- Select the relevant **reference properties** and specify if you want it to be **Read-only / Editable / Required / Hidden**.


**Reference properties** are **attributes** (*reference category*) of the document reference link. You can select one of them from the attribute drop down in the **Details** cell.


Reference Property ▼	DEKE_Ingredient Quantity (float) ▼
Reference Property ▼	DEKE_Ingredient Unit ▼

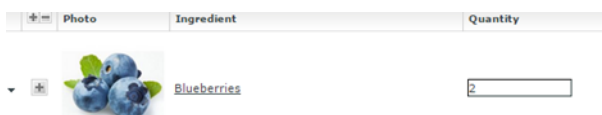


**Note:** **Reference Property** field is only available when a *reference category* is specified for the document reference.

Specify the Visibility of the reference category attribute as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>Editable</b> if you want the users (with the right permissions) to be able to edit this attribute.</li> <li>• <b>Required</b> if you want to make it mandatory for users (with the right permissions) to fill in this attribute.</li> </ul>	<ul style="list-style-type: none"> <li>• The reference attributes will be displayed in the table header and its values in the respective columns.</li> <li>• The users can type in the values for the editable attributes.</li> </ul>

Specify the Visibility of the reference category attribute as...	The result in the rendering table will be...
<ul style="list-style-type: none"> <li>• <b>Read Only</b> if you do not want <b>any</b> user to be able to edit this attribute.</li> </ul> <p><b>Hidden</b> if you want to specify a Reference Property, but do not want to show it in the table.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> This option is specific to <b>Reference Properties</b>.         </div>	<ul style="list-style-type: none"> <li>• No visible <b>reference attributes</b> in the table</li> <li>• The values (of the <b>reference attributes</b>) are retained when you <i>duplicate</i> or <i>replace</i> a document reference.</li> </ul>

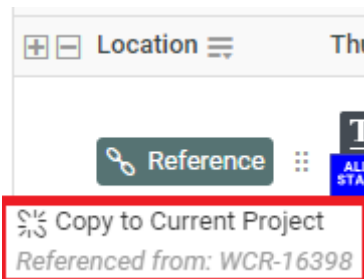
 **Note:** Choose **Collapse** check box when you choose **Document Property, Reference Property, Reference Property Filter, Document Attribute, Project Property, Project Attribute, Master Text, Translation Text, Text Language Flags** fields for **Type**, to expand or collapse the column while rendering in the table.



- You can allow the users to move a referenced document into the current project. To set this up, create a column with **Local / Remote** setting. Specify the **visibility** as **editable** or **read-only**. You can move all the referenced documents into the local project by hovering on the **Location** in the header and selecting the option **Copy All References into Current Project**.

		+ Upload	+ Link	+ Search	+ Search			
Location	Thumbnail	Name			Version			
Copy All References into Current Project								
Reference		Reference	■ Allergen statement	0002_TextDoc_00000814_PCM.wcc	1			
Reference		Reference	■ Best before date	123Best before date.wcc	8(F)			
Reference		Reference	■ Dosage instructions	123Dosage instructions.wcc	1			
Reference		!!Carrot11.pdf			1			
Reference				000000002_Nutritional Facts_C.wcc	1			

You can move any of the referenced document to the local by clicking on the Referenced field of the required document and selecting the option **Copy to Current Project**.



The users need to **Change Properties** and **Add** permissions to move a document to local folder. The document reference will point to the local copies.

The user will be able to specify:

- a new name and description
- document template
- target folder

If the setting is **Read-only**, the user will see indicating remote project.

- When you are creating a Copy Sheet using Text Document References, you can configure text related data to the table. Read more in: [Create a Table Rendering for Text Documents](#) on page 399
- To configure the rendering with Project related parameters, choose from



- Project Property
- Project Attribute

Read more details in: [Project Properties in Advanced Table Rendering](#) on page 397

- Optionally, add:
  - a) a **Numbering** column.
  - b) **Up / Down** arrows to let the users change the sequence.
  - c) **Duplicate** button which allows the user to duplicate a reference along with its properties. Read more in: [Duplicate a Document Reference](#) on page 396.
  - d) **Replace** button which allows the user to replace a document reference. Read more: [Replace a Document Reference](#) on page 396.
  - e) a **Delete Button** to let the users delete the document references from the table.
  - f) **Row Selector** to let the users select single or multiple documents. Using this, user can select multiple documents from the document table and perform document actions on them.
- Save the configuration by clicking **OK**. To revert from this configuration, click **Revert to WebCenter Default Configuration**.
- **Save** the **Attribute Category**.

If the logged in user does not have permissions to view the document, the document table will have (based on the configuration):

1. **Document name** with **!**. The user will see a warning message.
2. Editable **reference properties** displayed in the specified columns
3. **Up /Down** arrows
4. **Delete** button
5. **Numbering** (“#”)



**Note:** If the settings are not **editable**, the document table will have the document name and its sequence number.

### Creating a Copy Sheet

Copy sheet is a term used to describe all the content that is attached to a particular artwork or printed item. A copy sheet containing aggregated content helps you to:

- validate the copy sheet templates for consistency, accuracy and compliance with the established content management process.
- review, proof-read and approve copy sheet in one place.

You can create a copy sheet using Text Content Document References in an **Attribute Category**. This gives the option to attach this copy sheet to your Projects or artwork documents.

The copy sheet categories allow you to:

- track the content on an artwork.
- easily reuse existing approved content
- configure separate permissions and approval system for each text document.



**Tip:**

By configuring [Document Rendering](#) for Text documents, you can attach copy sheets to Tasks. When you configure Workflows with manual tasks for editing or approving, the users can work on the copy sheet directly from their task.

An Attribute Category based copy sheet offers the following advantages:

- the languages. To view a particular translation corresponding to a master, just select that language in the filter drop down.
- the **Instance Sequence**. See more in: [Dynamic Content documentation](#)
- the option to [replace a text document with another](#)
- the button to [duplicate a document](#) with the same reference attributes
- [advanced document reference options](#)

You can [Edit](#), [Start Approval](#), [Approve and Reject](#) actions from the copy sheet depending on your content permission.





**Note:** The text document references are used when you import Dynamic Content into WebCenter. Read about this [here](#).

See the example screen shot below. The configuration explained here is only an example. You can configure your document references according to your needs.



**Tip:** You can configure the copy sheet with different **Attribute Views** to provide custom views to your users. For example, a content collator and Translation Language Editors can have different [custom views](#) of the same text document reference category.



**Note:** You can also add the languages by clicking on the  displayed in the text statement. On deletion of a language, the  icon is again displayed to enable adding back the language. You can configure the corresponding attribute category to display the languages one by one in a table.

Name	Master Text: English - International	Translation Text: French - France	Text Languages
Marketing copy Content: 001006.wcc	HIGH IN VITAMINS: B5, B6, B12, C		
Marketing copy Content: 001007.wcc	REFRESHMENT WITH ZINC & CHROMIUM	RAFFRAICHISSEMENT AVEC ZINC ET CHROME	
Marketing copy Content: 001008.wcc	EXCELLENT SOURCE OF ELECTROLYTES	EXCELLENTE SOURCE D'ELECTROLYTES	
Recycle statement Content: 001009.wcc	RECYCLE PLASTICS	RECYCLER PLASTIQUES	
Variante Content: 001010.wcc	TROPICAL BLEND	MÉLANGES TROPICAUX	
Packaging claim Content: 001011.wcc	ENERGY DRINK	BOISSON ENERGISANTE	

### Automatically add/remove languages in the Documents Table

Adding any of the available languages is possible based on permissions on all the local text content documents in the table, but for the remote documents (sitting in another project). Auto Addition of Languages can be enabled in the [PCM Deployment and Configuration](#).

When a new language is added in a Master/Translation language attribute, the language is automatically added into all the local text content documents. For the new text content documents in the local project, the missing languages are added and extra languages available in the text content are removed.



Similarly, when a language is removed from a language attribute, it automatically removes the languages which are added recently but not yet saved.

### Create a Table Rendering for Text Documents

You can configure a Text statement as document references and add them to a Project or Document Attribute category. The configuration and rendering are similar for Task Specifications.

For each Copy Sheet (Product Content Sheet), which has Text Content documents as reference, you can make different configurations to show text related data using advance table rendering option."

1. [Create a Table Rendering](#).
2. In the **Edit Rendering Configuration** pop-up:

Configure	The result in the rendering table will be...
<p><b>Master Text or Translation Text</b></p>	<p>Master Text Statement or the Translation Text is shown in a text widget along with its content in the edit field and all related text content actions.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> The <b>Visibility</b> should be specified as Editable if you want your users to edit the text. One or more columns can be configured for the Master or Translations of the Master Text.</p> <p>Master and Translation languages will either appear in a drop down or you can choose <b>Show Side by Side</b> view.</p> <p>You can also restrict the languages that will appear in the drop down, by mentioning the languages ( pipe separated) specifically in the details tab.</p> </div>
<p><b>Text Language Flags</b></p>	<p>The language drop downs for Master and Translation Text columns.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> The master and translation languages are populated from the project attributes MASTER_TEXT_LANGUAGE and TRANSLATION_TEXT_LANGUAGE respectively.</p> </div>



**Tip:**

You can specify a default language code for Text statements. The selected language will be the default in the document reference table. If default language is not specified, the first language from the language drop down is selected as the default. WebCenter also supports right to left languages like Arabic and Hebrew for text content.

- Specify the width for Master Text and Translation Text. By default, the width of every column is set to **Auto**. However, you can configure the width for the Document Name, Master Text, Translation Text and the Translation Languages.



**Tip:**

To change the width of the columns, specify pixels or a percentage (of the width of the table). If the label of the column is too big for the width specified, the column width will be bigger to accommodate this.

**Edit Render Configuration**

Name: PCM Text Reference\_Default

Hide Header  
 Open Links in new Tab  
 Allow Bulk Operations  
 Limit Bulk Operations to Document References with matching Operations configured

Type	Details	Label	Visibility	Width	Collapse
Document Property	Thumbnail	Thumbnail	Read Only	50 px	auto
Document Name	<input checked="" type="checkbox"/> Show Document Source <input type="checkbox"/> Show Document Description <input type="checkbox"/> Show Folder <input type="checkbox"/> Show Document Template	Name	Read Only	100px	
Replace Button	<input checked="" type="checkbox"/> Compact Rendering		Read Only	auto	
Reference Property	ARTWORK_VARIABLE	ARTWORK_VARIABLE	Editable	auto	
Reference Property	INSTANCE_SEQUENCE	Instance Seq.	Editable	75px	
Translation Text	<input type="checkbox"/> Show Side by Side Display Options:	Translation Text	Editable	600px	
Master Text	<input type="checkbox"/> Show Side by Side Display Options:	Master Text	Editable	600px	
Delete Button			Read Only	auto	

- You can also enable the **Display Options** in the Edit Render Configurations. You have four icons buttons and are active by default.
  - Status Button** Show status column in default manner like basic view page when active. When the button is inactive it shows status in the form of a colored strip based on the status of the content. Green for approved, red for rejected, blue for pending approval and grey for draft.
  - Inheritance Button** Shows the inheritance icon when active.

- **Comments Button** Shows the comments icon button when active.
- **Approval Info Button** Shows the approval info button when active.

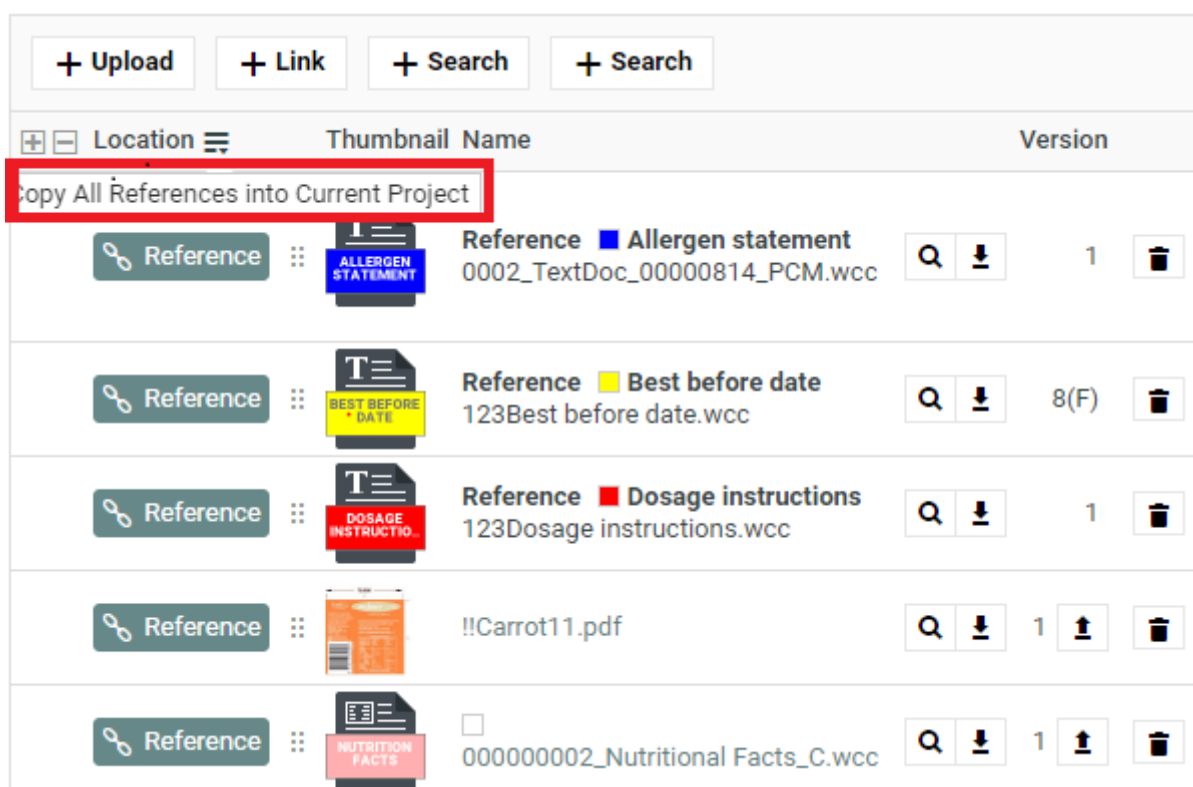
While Rendering of Master and Translation Language, if all the button options are disabled and there is no message to show then more options “Ellipsis” button will also not be visible.

**4. Configure the display of Text Language Flags.** You can configure the **Display** as **Show only Flags** or **Show Flags and Languages**.

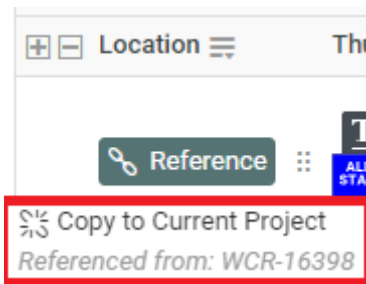
These flags will be based on the Project Language Attributes.

- In the copy sheet view, all the newly created text documents will have the current Project's [Language attributes](#) as flags. You can read about how to customize flags for languages [here](#).
- All the sourced content (referenced from other Projects) will have the flags based on the source Project's language attributes. To add the current project's languages, select them from the available flags. You can add or delete flags in this view.

**5. You can allow the users to move a referenced document into the current project.** To set this up, create a column with **Local / Remote** setting. Specify the **visibility** as **editable** or **read-only**. You can move all the referenced documents into the local project by hovering on the **Location** in the header and selecting the option **Copy All References into Current Project**.



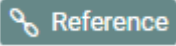
You can move any of the referenced document to the local by clicking on the Referenced field of the required document and selecting the option **Copy to Current Project**.



The users need to **Change Properties** and **Add** permissions to move a document to local folder. The document reference will point to the local copies.

The user will be able to specify:

- a new name and description
- document template
- target folder

If the setting is **Read-only**, the user will see  indicating remote project.

6. If you are configuring **Local / Remote** button to allow copying of documents, ensure that you have enabled or disabled **Retain text document status**.

When this option is turned off, if you copy to **Local**, the approval status of the Text Document is reset to **Draft**.

If **Retain text document status** option is turned on when you copy the document, the document's approval status is retained as it is.

7. Define adequate permissions to view and edit Text Statements.

Whether or not your user can edit or perform approval actions on a Text Element is determined by the following settings and permissions:

- **Visibility** should be specified as **Editable**.
- If your Text Document Reference is a child of another document (for example an artwork), the **Expand Attributes (+)** column of the Parent document should be configured as **Editable**.
- The user should have appropriate Content Permissions. Read more in: [Managing Text Permissions](#) on page 523.

**Tip:**

Check these Project level permissions (**Project Details > Security**) to troubleshoot editing problems:

- **Change Properties**
- **Start/Stop Approval**
- **Upload new version**
- **Change Task**
- **Download**
- **View**
- **Add**



**Note:** The Text widgets, related languages and statuses are rendered only for Text Document References.

## 4.15.10. Setting Up Task Notifications

The biggest aim of Task Management is to make tasks happen at the right time. As with most production processes, packaging production is a complex process with both sequential and parallel operations.

The critical path is the set of dependent operations defining the total duration of the Project. At each moment, only one task is on the critical path and any delay on that task delays the entire Project. Often, people performing critical tasks are not even aware of the critical nature of their work.

Therefore, it is very **important that people get correctly notified** of what they are supposed to do and that they get **notified again if they cause delay** to the Project.

Currently, WebCenter does not calculate critical paths; it leaves it to the Project manager to set good due dates and it notifies people assigned to a task.

WebCenter also automatically sends **overdue notifications to Project managers and assigned Project members** whenever a task is overdue. Overdue means that the task passes its due date without being completed.

This information assumes that the e-mail environment is already set up. Please refer to the WebCenter Installation Guide for detailed instructions.

### Set Up Notifications for Tasks

Task management notifications are set up on the same pages as all other notifications.

The Admin sets system-wide default notifications for all projects at once (see "Notifications Preferences" in the Administrator Guide), but you can change those defaults for the projects you manage.

- To set project-specific task notifications, click the **Notifications** tab in your project. Following Notifications can be set up for task related events.
  - Task created
  - Task Assignment changed
  - Task Due Date changed
  - Task Predecessor changed
  - Task Specification changed
  - Task Information changed
  - Task Document(s) changed
  - Task Checklist changed
  - Task Status changed
  - Task started
  - Task completed
  - Task deleted
  - Workflow canceled

For example, you can send notifications to the **Involved People**. For task management notifications, the involved people are typically the task creator and the task assignee.



**Tip:** On the notification setting page, click **Involved People** for more information about the involved people for each kind of notification.

### 4.15.11. Tasks, Templates and Copying Tasks

- When saving a project to a Template, you also save its tasks to this Template. When creating a new project from this Template, you'll automatically have these tasks in your new project.
- You can also create a project as a (partial) copy of an existing project. After clicking **Create New Project**, click **Copy setup from an Existing Project** (see [Create a Project Based on Another Project](#) on page 779). There you have the option to copy the tasks.
- A third way to quickly create a task from existing tasks is to create a task as a copy of another task.

#### Copy a Task from Another Task



**Note:** You can only copy from other tasks in the same project.

1. Go into the task details of the task you want to copy and click **Copy Task** on the right of the screen.
2. Choose if you want to:
  - **Copy Specifications,**
  - **Copy Documents.**
 ... into the new task.
3. Enter the new task's **Name** and an optional **Description**.
4. Change the due date as desired.
5. Assign it to the project member of your choice.
6. Click **Finish**.



### 4.15.12. Example: Assign a Role using a Task

Use this to allow non-Project Managers to invite people, assign tasks or approvals to users or groups via a task.

For example, use this if you want Marketing Managers or customers to invite an agency without getting to project management details.

You will need your Administrator's help for this (steps 1 to 3).

1. As an Administrator, create a **Restricted Set** containing the people or groups that will be used to assign the role in the task.
  - Use the **Text Type**.
  - For groups, use the exact group names.
  - For users, use this format: `Lastname, Firstname (username)`. Make sure this is spelled correctly, especially the `(username)`!

See the Administration Guide for details.

2. Create a **Specification** (from the **Task Types > Specifications** menu) with the same name as the role and add the **Restricted Set** you just created.
3. Create a **Task Type** that allows assigning roles with your restricted set values.



**Note:** You can do this part yourself if you have the **User Can Create Task Type** permission. It is possible to assign multiple users/groups to the same role in case you use the option **Allow Multiple Values** for your specification.

In the **Select available specifications** screen of the **Create New Task Type** wizard:

- a) Select **Assign roles from task specifications**.
  - b) Add the **Specification** you just created.
4. As a Project Manager, create a task from the task type your Administrator created.
 

Assign it to the person who needs to take the decision (who to assign the role to).

For example, assign it to the Marketing Manager to have him / her choose a design agency for this project.
  5. When you run the project, the assignee will get the task on his / her **My Work** page and will assign the role with the appropriate user or group.

### 4.15.13. Task Reporting

WebCenter has a number of areas where you can see progress of tasks and sets of tasks.

The most obvious one is the tasks overview within the project. Here you can rapidly see how the project is doing and which tasks are in trouble.

You can also create reports that encompass multiple projects. The way to do this is through the **task searching combined with saved Global Searches**.

### A typical task search for a follow-up report

Search for Tasks

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

		Search Results Options				Search
		View(List)	Column Order	Sort	Order	
<input type="checkbox"/> Use Advanced Search Characters <a href="#">?</a>						
<input type="checkbox"/> Search Panel Design	<input type="checkbox"/> Enable SmartNames <a href="#">?</a>					Clear this Form
Task Name	<input type="text"/>	<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/>	1 ▲	Save this Search
Task Description	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		Show Result Layout Options
Task Type Name	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Task Type Description	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Task Status	Not Completed	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>		
Start Date	<input type="text"/>	<input checked="" type="checkbox"/>	3	<input type="checkbox"/>		
Due Date	this month	<input checked="" type="checkbox"/>	4	<input type="checkbox"/>		
Completed	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Estimated Date	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Modified	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Created by	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Assigned to	<input type="text"/>	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>		
Assignee's Location	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Specifications...						
Task Documents	<input type="text"/>	<input type="checkbox"/>		<input type="checkbox"/>		

The search pictured here shows all tasks in projects I have access to that need some follow-up.

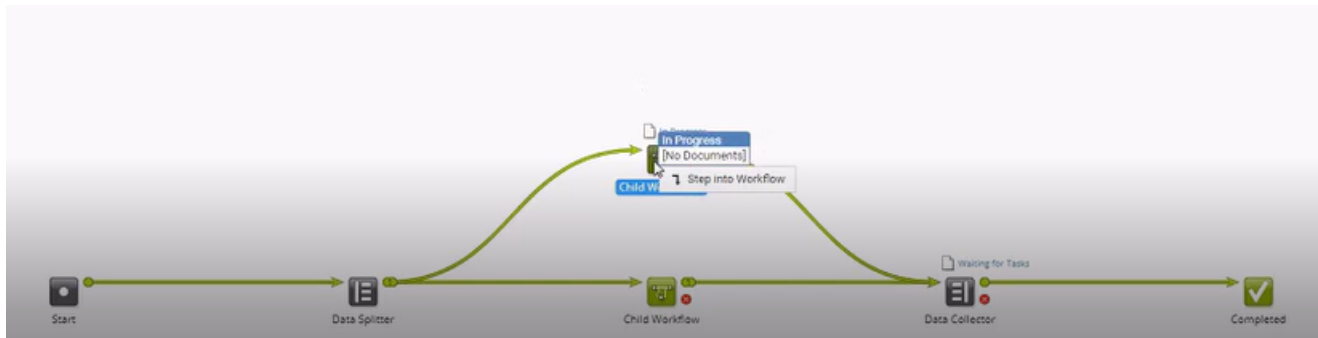
Completed tasks are excluded and also tasks in non-active projects are not interesting. Tasks with due dates far in the future or a long time ago are also excluded.

The result will show a set of tasks with their due dates. Those overdue will be shown in red and you can rapidly click-through to these tasks and take action.

### Step into Workflow

#### View a Sub Workflow from the Workflow Node

Workflow nodes are sometimes linked to a sub workflow. Viewing a sub workflow from the workflow is simple. Right-click the node and the sub workflow opens up. With the browser backward or forward buttons, navigate in and out of the sub workflow.



## 4.15.14. Workflows

### What is a Workflow

A Workflow associated with a task enables you to automate actions and events in WebCenter, reducing the number of human interventions during the project. Use these workflows to execute complex business processes in an automated way. You can create smart workflows by using SmartNames, subworkflows, routing and integration steps.

You can use Workflows in:

- task creation and assignment
- approvals
- communication to and from Automation Engine
- project creation
- setting the project status
- content management: translation
- ...

It uses attributes to decide what happens next (for example, who needs to approve a document, perform a task or manage a project). This reduces the number of templates required and also makes it possible to run many tasks in parallel.



**Note:**

To enable the workflow feature you need the following license module (depending on the License model):

- the **WebCenter Task Management Advanced** module in the **Named User License** model
- the **WebCenter Lifecycle Management** module in the **Concurrent User License** model

### Workflow Basics

#### Workflow is attached to a Task Type

The workflows are attached to the Task types. Task types are templates for tasks which can be added into projects.

You can create:

- **Manual** Task types where human intervention is necessary. Read more in [Task Types](#) on page 835.
- **Workflow** Task types where you attach a workflow to perform the automated action sequence.

**Workflow Editor**

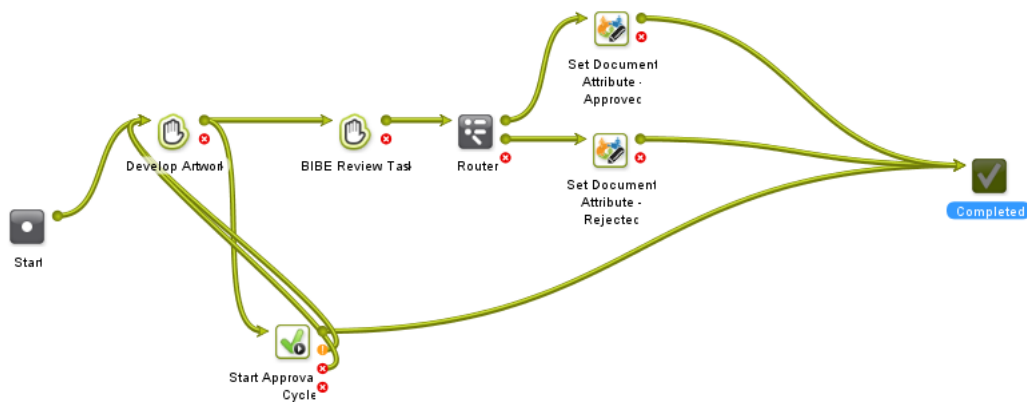
WebCenter has HTML 5 based Editor for workflow.

**Workflow Step / Node**


A step in a workflow is a **Task** which is configured to:

- perform an action on an input file to produce an output file.
- manage files such as selecting or copying a document using an **Auto Task**
- decide the flow (**Router**) of the workflow or decide about other administrative decisions in the workflow such as **wait for action** check points.

The actual workflow operations take place in these steps which are sequentially connected to each other via “tubes”.



- A **Transition** is the line that connects each step in the workflow. It is a graphical representation of communication of output file or data being sent as the input for the next step.
- By default, each node / step has an OK and an Error **Output Pins**. If the task ends in the OK state, the output file will be sent to the following step. If it fails, the step connected with the Error output pin will follow.

 **Note:** You can have more output pins depending on the possible outcomes.



- Workflow constructs can do administrative actions on the workflow, such as in the case of **Router**.

**Documents in the Workflow**

There are a few ways to attach input documents to a workflow.

- You can upload them to the project where the Workflow task is added to. In this case, these are inputs for the **Start** node.
- You can use a [Select Document node](#) to pick up documents.
- You can have manual **Tasks** (conventional in the workflow). For example, when a designer creates and uploads an artwork.

### Workflow Tokens


Documents and operations processed by the workflow are represented by tokens  traveling through it. The number indicates the number of tokens. The position of a token indicates what is currently happening (which node is being executed). A red token  indicates an error.

Using a Router node, you can split a token (and its documents) into multiple tokens based on certain parameters which will follow their own path through the workflow network. After certain workflow tasks, you can use a Data collector to aggregate these into a single token again. Read more in: [Data Splitter and Data Collector](#) on page 973.

- You can view the Token information while a workflow is in progress. The route that the Token has taken is highlighted.
- **Open in Viewer** is enabled when you right click some of these tokens
- You can **Retry** (in case of error) or **Relaunch** (in case the workflow is stopped or cancelled) a workflow when you right click on a token.

### Workflow Feedback in Project Details

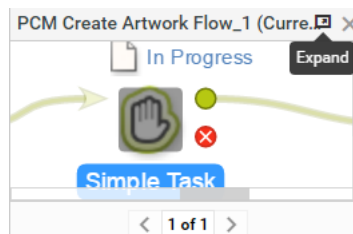
You can view a workflow's feedback from **Project > Tasks** page. To open the workflow feedback page either:

- hover over the task name and click the **Workflow**  icon.




**Tip:** You can use the **Edit** button to edit the Task Information.

- or click the **Show Active Nodes**  and **Expand** the mini Feedback view.



### SmartNames

Certain parameters of the workflow nodes are SmartName enabled. This is a variable that will be resolved only when the node is executed. When the value is resolved (for example, an attribute value is found), this will be used as the value during the execution of the node. Click the SmartName  button in an input field to use this feature.

## Building Workflows

### Create a Workflow from a Task Type

#### Creating and Starting a Workflow

To create a Workflow, you need to:

1. [Create a new Task Type](#) or use an existing Task Type.



**Note:** Task types can only be created by Project Managers with the **User Can Create Task Type** permission, or by Admins.

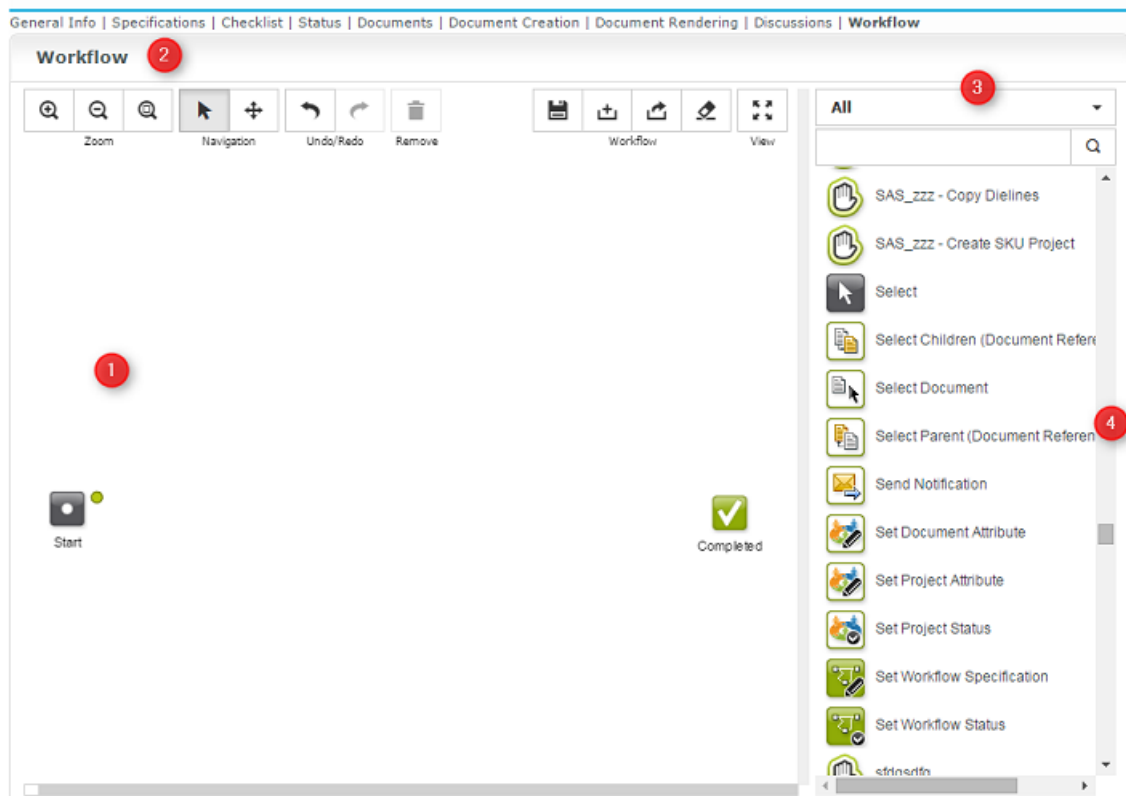
- In that Task Type, [open the workflow tab](#) and [create a Workflow by combining workflow nodes](#).  
To start the workflow, make the task status active, such as **in progress**.

### The Workflow Editor

To open the Workflow Editor, go to **Task Types** in the menu and:

- Hover over the Task Type Workflow where you want to create a Workflow and click the Task Type icon. You can also create Workflows from the Manual Tasks directly from the list.
- Or click the required Task Type. Go to the **Workflow** tab to access the editor.

The workflow editor appears as below. By default, it contains a **Start** node and a **Completed** node. A **node** or **step** represents an individual operation performed in the sequence of a workflow.



1	The <b>workflow canvas</b> in the edit mode. By default, this only contains a <b>Start</b> node and a <b>Completed</b> node.  After the workflow has processed its files, you will see this canvas in the feedback mode. In this mode, you can monitor your workflow or examine a finished workflow.
2	The Workflow editor <i>tool bar</i> . Use it to:

	<ul style="list-style-type: none"> <li>• <b>Zoom in, Zoom out</b> or <b>Zoom to fit</b></li> <li>• <b>Maximize</b> the canvas in your browser window (and minimize it again),</li> <li>• <b>Delete the selected items</b></li> </ul>
3	<ul style="list-style-type: none"> <li>• Use the <b>filter</b> to select certain workflow node types (see <a href="#">Workflow Nodes</a> on page 894 ). Using this you can choose to display <b>All</b> or only: <ul style="list-style-type: none"> <li>• <b>Auto Tasks</b></li> <li>• <b>Statuses</b></li> <li>• <b>Task Types</b></li> </ul> </li> <li>• Use the <b>search field</b> to search on node names. The search field accepts wildcards.</li> </ul>
4	The <b>Task pane</b> shows all the Auto Tasks, Statuses and workflow constructs that you can use in a workflow. Drag and drop them onto the canvas. You can easily find tasks by using the filter and the search field.

Read more in: [The Workflow Tools](#) on page 889

*The Workflow Tools*

Table: Zoom Tools





Use this Tool or Shortcut...	To...
 tool or <b>CTRL + Plus(+)</b> or <b>F5</b>	<b>Zoom In</b> on the Workflow <a href="#">Canvas</a>
 <b>CTRL + Minus(-)</b> or <b>F6</b>  <b>Note:</b> Scroll the mouse up or down to <b>Zoom</b> in and out on the canvas.	<b>Zoom Out</b> on the Workflow <a href="#">Canvas</a>
 or <b>CTRL + Zero (0)</b> or <b>F9</b>	Fit the Workflow on the <a href="#">Canvas</a>

Table: Navigation Tools







Use this Tool or Shortcut...	To...
 <b>Pointer</b>	Select an area in the <a href="#">Canvas</a> (including the Nodes in it) and copy, cut or move those Nodes and Transitions marked by the selection.
 <b>Pan</b> or <b>Space</b>	Pan the whole <a href="#">Canvas</a> and to move all the Nodes and Transitions within by using the click-drag-release action.





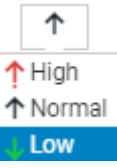


Table: Other Tools

Use this Tool or Shortcut...	To...
 or <b>CTRL + Z</b>	Undo your actions on the <i>Canvas</i>
 or <b>CTRL + Y</b> or <b>CTRL + Shift + Z</b>	Redo your actions
 or <b>Delete</b> or <b>Backspace</b>	<p>To remove a Node. Select the Node or Transition and click <b>Remove</b>.</p> <p>To remove a Transition, select the arrow-head and drag it away.</p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;">  <b>Note:</b> You cannot delete the <b>Start Node</b>.         </div>
Context Menu	Right-Click to access the <i>The Context Menu</i> tools



**Tip:** Use **CTRL + click** or click and drag to select multiple steps.

Table: Workflow Tools and View Tool

Use this Tool or Shortcut...	To...
 or <b>CTRL + S</b>	<b>Save</b> all changes made to the Workflow
	<b>Import Workflow</b> from an <i>XML</i> file. The import will overwrite the current workflow.
	<b>Export Workflow</b> and save it as an XML file on your computer. It can be used later to <b>Import</b> the workflow to the same or another system
 <b>Clear Workflow</b>	Click <b>Clear Workflow</b> to clear an existing workflow from a Task Type. This will make it a Manual Task Type.
 <p><b>Workflow Priority</b></p>	<p>The priority of a workflow can be set and is used in the queuing strategy of the workflow engine. Choose one of the priority</p> <ul style="list-style-type: none"> <li>• <b>Low:</b> to execute with lower priority than usual.</li> <li>• <b>Normal:</b> the default priority</li> <li>• <b>High:</b> to execute with higher priority than usual.</li> </ul>
 or  <b>Tip:</b> Use <b>Esc</b> to exit full screen.	To <b>View</b> the Workflow in <b>Full Screen</b> or <b>Minimize</b> the canvas in your browser window.



### Node Gallery









It contains all Task Types and Workflow Constructs required to build a workflow. Select using the below filter options:

The Filters...	and what they mean
<b>All</b>	Nodes from all categories
<b>Auto Tasks</b>	Tasks executed without human intervention
<b>Statuses</b>	Task status for the current workflow task type
<b>Task Types</b>	Manual, Auto Tasks and Workflow Task Types
<b>Workflow Constructs</b>	Building blocks for the workflow used for Routing and Token management. Read more in: <a href="#">Workflow Constructs</a> on page 973

### The Context Menu

Right-click anywhere on the Canvas or on a Node and access the context-sensitive menu.

#### Context Menu Actions on a Workflow Node/Canvas

-  Remove Node(s)
-  Copy Nodes
-  Cut Nodes
-  Use Ctrl+V/Cmd+V to Paste Nodes
-  Add Sticky Note
-  Edit Parameters
-  Configure Outputs
-  Open Node Help

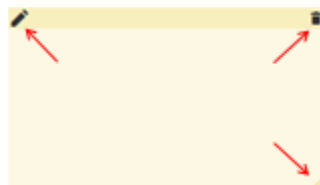
See the details and keyboard shortcuts below:

To...	Select this from the Context Menu..	Or use these Shortcut Keys..
Remove Nodes	<b>Remove Nodes(s)</b>	<b>Delete Backspace</b>
Copy Nodes	<b>Copy Nodes</b>	<b>CTRL + C</b> (Windows) or <b>CMD + C</b> (Mac)
Cut Nodes	<b>Cut Nodes</b>	<b>CTRL + X</b> (Windows) or <b>CMD + X</b> (Mac)
Paste Nodes		<b>CTRL + V</b> (Windows) <b>CMD + V</b> (Mac). Paste Nodes can be done only by shortcut keys.
Add Sticky Notes on the Canvas	<b>Add Sticky Note</b>	<a href="#">Read more.</a>
Edit Parameters of a Node	Select a node, right-click and select <b>Edit Parameters</b>	
Configure Outputs of a Node	Select a node, right-click and select <b>Configure Outputs</b>	

To...	Select this from the Context Menu..	Or use these Shortcut Keys..
Open Help on Canvas and Tools	Click <b>Open Editor Help</b> to view workflow editor help page.  Right-click on a Node and select <b>Node Help</b> to get help on a specific Node.	
Open a specific Help page about a Node	Click <b>Open Node Help</b> to view details of working with each Node type.	

To create a Sticky Note:

- Select **Add Sticky Note** from the Context Menu.



- Click the body or the **Edit Sticky Note** icon in the top-left corner to edit the sticky note
- Type your text and Save using the **Save Sticky Note** . To edit a Note, just click on it.
- To **Remove Sticky Note**, use .
- To resize the **Sticky Note**, drag the resize icon at the bottom-right of the **Sticky Note**
- To move the Note, click and drag to anywhere in the Canvas.

### Create a Workflow

You can create a workflow from the [Workflow Editor](#) of any Task Type.

1. Click on the **Task Types** from the top menu items.
2. To open the editor:
  - Hover over the Task Type Workflow where you want to create a Workflow and click the Task Type icon.
  - Or click the required Task Type. Go to the **Workflow** tab to access the editor.

You will get a blank canvas containing only the **Start** and **Completed** nodes.

3. Drag and drop your chosen nodes from the workflow nodes list onto the canvas.

You can add nodes to create a workflow. There are four types of nodes:

- [Auto Tasks](#) on page 898
- [Manual Task Types](#)
- [Workflow Constructs](#) on page 973
- [Statuses](#) on page 988

See [Workflow Auto Tasks and Constructs](#) on page 894 for more information about nodes.



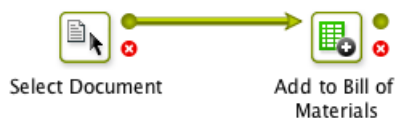
**Tip:**

- To find a node quickly, you can either use the filter or the search field on top of the workflow nodes list.
- To delete a node, right-click and select **Delete**.

4. If desired, click your node names to rename them.

5. Connect your nodes with one another.

To do this, click a node's green **pin** and drag it onto the next node. This links the two nodes with a green **transition** or tube.



**Note:**

- You can connect a node's output to several other nodes.
- To remove a connecting tube, drag its arrow head to a blank area on the canvas.



**Warning:**

It is not possible to self-reference a node. Self-referencing happens when the error pin is connected again to the input pin of the same node. This will result in an error when you start the workflow.

The screenshot shows the Workflow Editor interface with several components:

- Navigation Tabs:** General Info, Specifications, Checklist, Status, Documents, Document Creation, Document Rendering, Discussions, Workflow.
- Workflow Editor Tools:** A toolbar containing icons for Zoom, Navigation, Undo/Redo, Remove, Workflow, and View.
- Canvas:** Displays a workflow diagram with nodes: 'Start', 'Create Project', 'Select Document', and 'Start Approval Cycle'. A green transition tube connects 'Start' to 'Create Project'. A red text overlay reads: "Transition tube connecting two Nodes".
- Node List:** A vertical list of workflow nodes with a search filter 'appr' and a 'Filter' button. The list includes: Artwork Approval, Drupa Approve in Viewer, Drupa Draft and Approve in Viewer, JORE-Assign Approvers, LABO Approval Task, PCM Approve Master, PCM Draft and Approve Master, PCM Draft and Approve Master form, and PDL - Customer Review and Approve Quote.

6. Double-click each node and fill in its parameters in the **Edit Parameters** pop-up.
7. When you are done, click the **Save** button to save your workflow.

## Workflow Nodes

### Workflow Auto Tasks and Constructs

Nodes	Description
<a href="#">Add to Bill of Materials</a>	Adds the incoming document(s) to the current project's Bill of materials.
<a href="#">Assign Document Attribute Category</a>	Allows you to assign an Attribute Category to your documents in a workflow step.
<a href="#">Add or Replace Approvers</a>	Allows you to add or replace existing approves in an approval stage
Completed	The workflow completes when all operations for a workflow have finished.
<a href="#">Copy/Move Document</a>	Copies and moves the incoming document(s) to the given project/folder and optionally renames it.
<a href="#">Create Project</a>	<p>Creates or updates projects from your <b>workflow</b>. It can also iterate the project creation to create multiple projects at once. For example, using a multivalued attribute.</p> <div style="border: 1px solid #ccc; padding: 5px;">  <b>Note:</b> This node is only available if you have the WebCenter Advanced license.                 </div>
<a href="#">Copy Document Attributes Values</a>	Copies all non-empty document attribute values including document references from a source document to one or many target documents.
<a href="#">Create Graphics Placeholders</a>	
<a href="#">Create Color Cert Job</a>	Outputs a CCJ file and a mediastrip
<a href="#">Color Preflight</a>	
<a href="#">Delete Document</a>	Deletes the document when it is no longer required in WebCenter
<a href="#">Delete View Files</a>	Deletes the view files of specified document
<a href="#">Delete Older Versions</a>	Deletes older or unused versions of the document
Execute JavaScript	
<a href="#">Export Chili to PDF on page 916</a>	
<a href="#">Export to GS1 Format on page 915</a>	Exports your text content along with its <b>Element Type</b> tagging.

Nodes	Description
<a href="#">Export to XLIFF Format</a>	Exports your Text statements to be translated into a XLIFF file.
Finish Approval Cycle	
<a href="#">Get Dependent Colors</a>	Syncs the dependent standards belonging to the master colors based on the conditions and shows these colors in the input document attributes in WebCenter.
<a href="#">Import XLIFF Content</a>	Imports your translated Text statements in XLIFF format.
<a href="#">Import Dynamic Content</a>	Extracts the Dynamic Content from your artwork(s) as <b>Text Content Documents</b> . You can configure this node to import these Text Documents with a link to specific <b>document reference attributes</b> and <b>document templates</b> .
<a href="#">Import Dynamic Table</a> on page 926	Extracts the <b>Tables</b> from your artwork(s) as <b>Table Content Documents</b> . You can configure this node to import these Documents with a link to specific <b>document reference attributes</b> and <b>table document templates</b> .
<a href="#">Import Dynamic Graphic</a> on page 920	Extracts images or symbols from an incoming artwork document and are added to the artwork file as document references.
<a href="#">Import Dynamic Barcode</a> on page 921	Extracts Dynamic Barcodes from an incoming artwork document. For each Dynamic Barcode, a new document is created and these Barcode documents are added as Document References in the Artwork.
<a href="#">Invite Members to Project</a>	Invite a <b>User / Group / Role to a Project</b> in the workflow by the users who can create Task Types.
<a href="#">Merge Text Content</a>	Merge incoming text content documents with matching text content documents into the library project configured
<a href="#">Run Report</a>	Generate a report for the incoming document(s)/ Current project/other reports
<a href="#">Reuse Text Content</a>	Reuse the text content documents that are referenced in the incoming artwork document by matching and replacing them with the library documents or updating the text content document with SmartText that refers to library documents.
<a href="#">Remove Member</a>	Remove User(s)/ Group(s)/ Role(s) from a project, who have no approvals or task assigned to them
<a href="#">Replace Member</a>	Add and delete members in the project in Work flow execution
<a href="#">Restore from Esko Cloud</a>	Restores the document from Esko cloud to Webcenter location

Nodes	Description
<a href="#">Select Document</a>	Selects a document based on the folder, project name and name of the document.
<a href="#">Select Children (Document Reference)</a>	Selects the <b>document references</b> associated with an incoming document.
<a href="#">Select Parent (Document Reference)</a>	Selects the master documents of the incoming <b>document references</b> .
<a href="#">Send Notification</a>	You can send automatic notifications to Project Manager, Sales Person, Workflow Master, Groups, Users, Roles. Here Workflow Master is the assignee of the workflow task.  See <a href="#">Send Notification</a> for more information.
<a href="#">Set Document Attribute</a>	Sets the value of one or more document attribute(s) automatically.
<a href="#">Set Project Attribute</a>	Sets the value of one or more project attribute(s) automatically.
<a href="#">Set Project Status</a>	Automatically changes the status of the current project.
<a href="#">Set Workflow Specification</a>	Automatically sets the value of one or more specification(s) for the current workflow.
<a href="#">Set Workflow Status</a>	Automatically sets the status of the current workflow to a new status.
<a href="#">Start Approval Cycle</a>	Starts an approval cycle on a document and waits for its approval status.
<a href="#">Start Approval Stage</a> on page 945	This node starts an approval stage in a workflow and build a staged approval.
<a href="#">Finish Approval Cycle</a> on page 947	This node finishes the approval cycle of the incoming documents and send e-mail notifications.
<a href="#">Submit Workflow</a>	Launches an Automation Engine workflow that is configured in WebCenter.
<a href="#">Sync Workflow</a>	Synchronizes the project with the configured workflow taken from the project/template setup.
<a href="#">Table Content Preview Report</a>	Generate report of the preview of Table Content
<a href="#">Update Text Document</a>	Specify or Update Text Document properties
<a href="#">Update Table Content</a>	Specify or Update Table Document properties
<a href="#">Upload to Asset Management System</a>	Uploads the document to Esko cloud location or the Asset management location specified

Nodes	Description
<a href="#">Wait for view files</a>	Wait for view files in the work flow when it is not available
<a href="#">Wait</a>	Workflow waits/pauses for a specified amount of time

Nodes	Description
<a href="#">Data Splitter and Data Collector</a>	<p>If you have two or more documents with two different tasks assigned to each of them, then use the <b>Data Splitter</b> node. This node will put each document separately on this tube after which these follow their own path.</p> <p>Once the tasks are completed the <b>Data Collector</b> will wait until both tasks are completed and then proceed to next node.</p> <p>See <a href="#">Workflow Example</a> on page 988 for more information.</p>
<a href="#">Error Handler</a>	Use this to collect failed tokens when other nodes go into failure (make sure the other nodes' error dots are not connected to anything).
<a href="#">Fork and Join</a> on page 975	<p>The <b>Fork</b> step automatically tags</p> <ul style="list-style-type: none"> <li>• every file running through it</li> <li>• and all the files that those files are related to in the next steps</li> </ul> <p>The <b>Join</b> step then groups all the files with the same tag and outputs it together.</p>
<a href="#">Mark and Select</a>	<p>The Mark node marks the documents arriving to the node with a named tag. For example, main design, original data or admin data.</p> <p>Later, the Select node can pick up the same documents based on this named tag and then route it through the outgoing tube.</p>
<a href="#">Router</a>	<p>Use the Router to build a rule list to meet a result, these rules are evaluated from top to down. The rules can be based on:</p> <ul style="list-style-type: none"> <li>• Project Properties</li> <li>• Project Status</li> <li>• Project Attribute</li> <li>• Document Name</li> <li>• Document Attribute</li> <li>• Workflow Specification</li> </ul> <p>See <a href="#">Workflow Example</a> on page 988 for more information.</p>

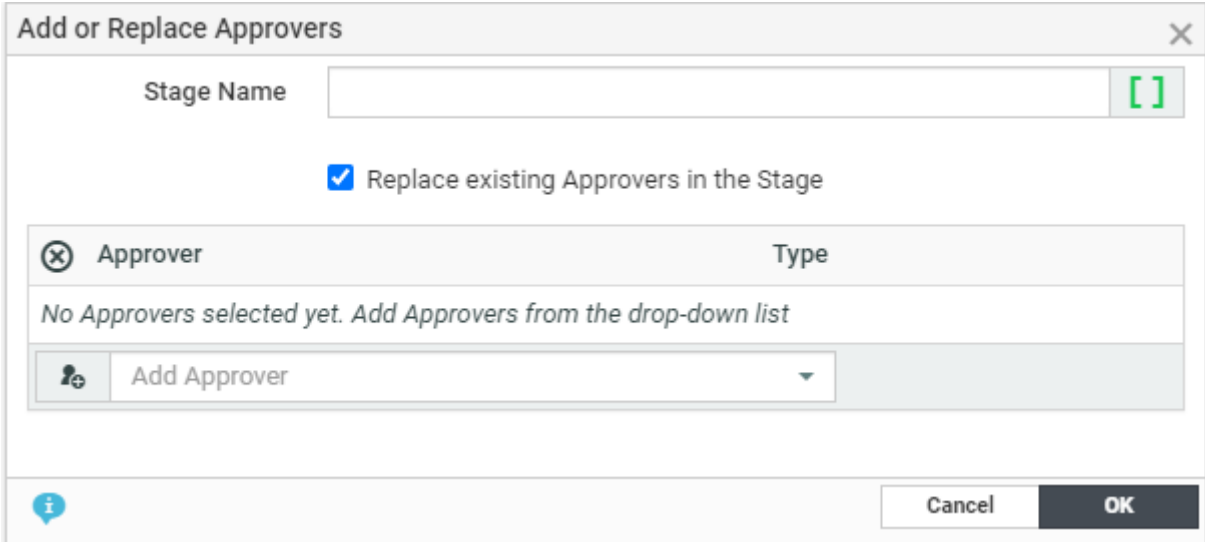
Nodes	Description
<a href="#">Stop</a>	Use the <b>Stop</b> node to stop the workflow before being completed. When a workflow token arrives at this step, it stops the workflow.

### Auto Tasks

An Auto Task is a step in the node which does not demand human intervention. Auto tasks are automatically executed using predefined parameters (the attribute values or SmartNames).

### Add or Replace Approvers

You can now add or replace approver(s) like users or groups or roles to a specified approval stage while it is in progress using the Add or Replace Approves node.



Fill in the following in the node to add or replace :

**Stage Name:** Select the Approval Stage where the approvers are to be added. The stage can either be ongoing or yet to start or stopped.

**Replace approvers option:** This option allows the approvers in the stage to be replaced by the approvers specified in the workflow node.

**Approver :** Choose the type of approvers from the drop down like Users, Groups or Roles.



**Note:** Ensure that the approvers added have view rights on the document.

When there are no approvers selected by the workflow and the option to replace is selected, then all approvers are removed from the stage and an error is generated in the workflow.



When the approvers are replaced while they have already submitted their approval, their approval status is not taken into account when calculating the final approval status. This is similar when the approval is stopped, approvers are removed and the cycle is started again.



**Note:** After adding or replacing the approval users, the todo list and document history is updated. Search is also updated with the new information.

An email notification to the newly added approvers is sent out if the notification event **Approval Cycle/ Stage started** is selected.

### Add to Bill of Materials

Use this node to add documents to the current Project's Bill of Materials automatically.

#### Parameters

**Count:** Set the documents' **Count** in the Bill of Materials.



**Tip:** You can use a SmartName (for example a document or project attribute) to set the count.

### Apply InDesign Content

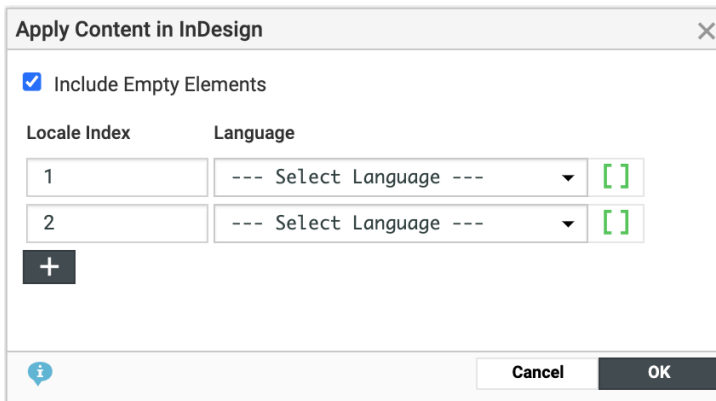
You can use this node to update the InDesign template with referenced contents (text statements, structured contents, images). It creates a new version of the InDesign template with updated reference content. There are three types of automation scripts that can be applied to the template:

- **Pre-Import Script:** This script runs before the content (Text, Tables, Images, etc.) is imported.
- **CONTENT\_TRANSFORM:** This is an XSL transformation that can be used to define formatting exceptions on your content.
- **Post-Import Script:** This script runs after the content (Text, Tables, Images, etc.) is imported.

When the execution is successful, it will reset the references of the "LINKED\_ASSETS" attribute of the template with all the linked images.

An option to set language parameters is available in the node. You can specify the locale index and choose any one of the available masters and the translation language. You can also select the **Include Empty Elements** checkbox and it is used to include the text/table elements based on content empty or not. To scale up the InDesign server as per business requirements, it is possible to provide multiple InDesign server instances in the appconfig.xml as in the example below.

```
<indesign_servers_url>  
  
    <indesign_server_url value="http://HOST:PORT"/>  
  
    <indesign_server_url value="http://HOST:PORT"/>  
  
</indesign_servers_url>
```



### Copy/Move Document

Use this node to copy or move one or more document(s) to a new location.

#### Parameters

Double click a **Copy/Move Document** node to set up these parameters in its dialog box.

- **Copy:** select this if you want to copy a document to a new location, while keeping it in the original location. You can choose to:
  - **Link** the new document to the original document,
  - Create a **New version if the document already exists** in the new location.
  - **New revision if Document already exists:** enable this to raise the revision while copying or updating. This will raise the revision letter (and create a new version) if the document already exists.



**Note:**

The option is visible only if your **Admin > Preferences > General > Allow increment Document Revision when uploading a new Document Version** is on.

- **Copy Viewer Annotations:** use this option to copy annotations of a document to a new one.
- **Update Document References** to remove a current document and add a new document to the document reference. A new version/revision of a document is now created in the target project and added in the document reference attribute.
- **Copy Local Referenced Structured Content Documents:** to copy the document and its structure. This means that documents that are referenced via the SC\_REFERENCE document reference attribute are copied along to the target project.



**Note:** Only documents that sit in the source project of the file that is originally copied (i.e. are 'local' to the source project) are copied. Document references within the original structure are recreated in the copied structure. Document references that point from the original structure to outside of the original structure, will still be pointing to the same places in the copied structure. Document references that are external to the original structure and pointing to the original structure will not point to copied structure.

- **Keep Text Content Element Status** to retain each Text Content element approval status when the document is copied as new version. (by default each element approval status is moved to draft state).



**Note:** You can retain the language content approval status only when the Packaging Content Management Licence is enabled.



**Note:** You can choose to either copy the comments or can be cleared based on the option chosen by the Admin user in the preference settings for Packaging Content Management. You can read more on the option at [#unique\\_508/unique\\_508\\_Connect\\_42\\_section\\_uzv\\_4ww\\_mfb](#)

- **Move:** select this if you want to move a document to a new location (removing it from the original location).

**Project Name:** Enter the name of the Project into which you want to copy/move the document.

**Folder:** Enter the name of the Project's folder into which you want to copy/move the document.

**Name:** Enter the name to give the document in the new location if desired.



**Tip:** You can use SmartNames for the **Project Name**, **Folder** and **Name** parameters.

These Copy/Move action have below results:

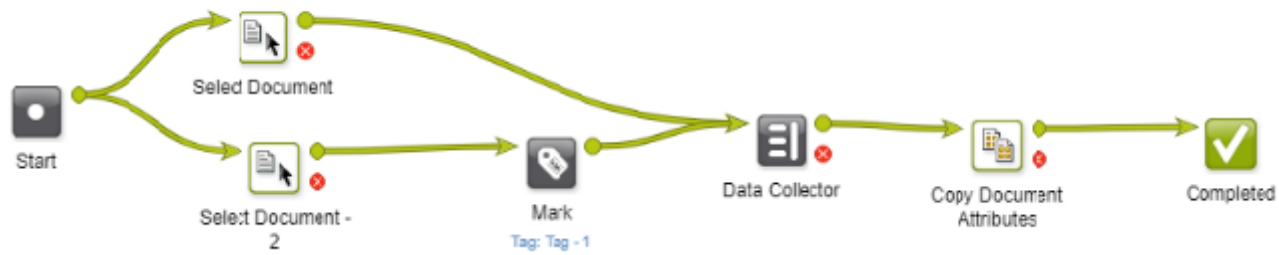
- When Moving, all document versions move along, including all the related features like approval, history, attributes...
- When Copying, only the latest version is copied along with its view data, attribute... and the Approvals reset.
- For each document, a line is added to the Project History stating that the document is deleted/moved from the source project and added to the target project.



**Note:** The node fails if the target project/folder does not exist.

### Copy Document Attribute Values

You can use **Copy Document Attribute Values** node to copy all non-empty document attribute values including document references from a source document to one or many target documents.



Set up the Parameters as below:

- **General**

In the **Source Document tag** drop down, choose the source document. This tag is to identify the source document from where document attribute values need to be copied from.

Select **Only select tagged source Document from the incoming Documents** field to look up the source document from the incoming documents instead of selecting all documents with the given source document tag in the workflow. This allows bulk tagging of documents earlier in the workflow, but when a set of documents reaches this node, the only **Source Document** that is selected from the list of tagged documents is the one that is part of the documents of the incoming token.

- **Document Reference**

You can use this tab to copy all the document references and other attribute values to the matching attributes. When the same reference attributes are not available in the target document, then document references are copied in the reference attribute chosen in **Copy all unmatched Document Reference to**.

From 18.0.1 WebCenter, select **Only copy if Reference Properties match target Document Attributes** option to decide whether the document references are to be filtered based on reference properties or not.

When document references are copied from a source document, existing document references in the target documents are removed. Basic attribute's values are copied when matching attribute is found.

### Create Packshots

From the Workflow Configuration Tab of a Task Type a user can add a Create Packshots node. This node allows the creation of Packshots in the Esko Cloud Environment. The node requires a Packshot Job Document as input.

A user can configure the following fields in the node:

- The Asset Management Connection that should be used. Only Asset Management Connections of type Esko Cloud Packshot will be available for selection. For the configuration, please check [this page](#)
- A Folder in which the resulting packshots should be stored. If no Folder is specified, the Project's root folder will be used.

When the node is activated, a Packshot Job will be started. If the Job is executed successfully, the Packshots will be stored in the location specified in the workflow node. If a Document with the same name as the Packshot output already exists, it will be saved as a new version. The node will then go down the success path and the Job will be deleted from the Cloud. The success pin will contain the IDs of the Packshot Documents which were created. If the Job fails, it will go to the error pin with more information on what went wrong.



**Note:** If the Packshot module is not enabled in WebCenter, then this Node type is not be available in the workflow Editor.

### Create Project

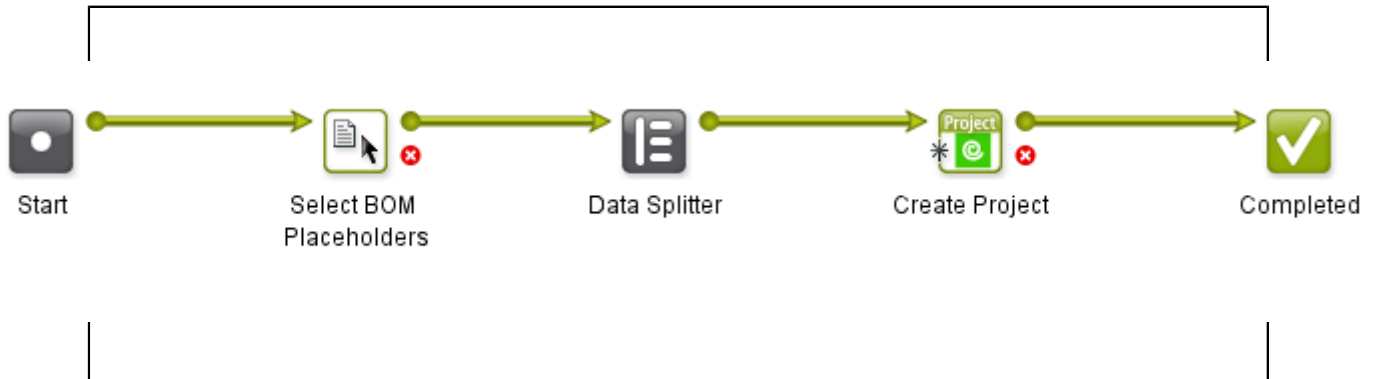
Creates or updates projects from your **workflow**. It can also iterate the project creation to create multiple projects at once. For example, using a multivalued attribute.



**Note:** This node is only available if you have the WebCenter Advanced license.

Using this node, you can:

- create or update projects either in the current WebCenter or another WebCenter.
- create *Child Projects* in a Program.
- copy the existing project documents to the new project.
- iterate over an attribute to create multiple projects.
- specify project attributes.



### Project Tab

Parameters for creating the project (all smart name enabled):

- **Project Name** is the name of the new project. If not specified, auto-naming is checked in the template or in the **admin > general > preferences** settings.



**Note:**

If the field is left empty without auto-naming in the Project Template, you will receive an error message :

```
One or more mandatory parameters were not specified
```

- **Update Project if it already exists, otherwise create a new Project:** Check this option to update a **project** with the specified name if it already exists.  
If it is not checked, a new project will be created. If a project with the specified name already exists, it will result in an error. For copying documents, there is an option to be copied as new versions.  
**Project Name Suffix** is required when you are using auto-naming with a **Suffix** field as **Edit**.
- **Add as Child Project of the Current Project:** Check this box to create Child Projects in a Program. Use this to create Projects as part of a Program. This option is turned off by default.
- **Template:** The project template on which the new project should be based on. If left empty, a blank project will be created.

- **Project Description:** The description of the new project.
- **Project Status:** The initial status of the new project. This list follows the order of the project statuses as defined in WebCenter and by default, the **Active** status is selected automatically. You can also select **Blank** as an option.

When a new project is created, the first active status is assigned whereas while updating existing project, the project status is left unchanged. You can configure SmartNames to indicate this initial status to make it context relevant.

- **Customer/Company:** The legal name of the company/customer. By default, it will be the customer/company of the current project.
- **Location:** The customer/company location. By default, it will be the location of the current project.
- **Project Due Date:** The due date of the new project. By default, it will be the due date of the current project.
- **Project Manager:** The project manager of the new project. By default, the node takes the current project manager.
  - Use **SmartNames** to choose a Group, Role, User as the Project Manager of the new Project and an attribute (document / project / task) to automate the setup of the node. You may also manually specify these parameters.
    - When a SmartName for Project Manager is not resolved (for example, you choose an attribute (with Group or User as value) and it cannot be resolved because you forgot to add the attribute to the project's attribute category), an error

```
Project manager not found.
```

is shown.

- If you choose a role to assign the Project Manager, the current project is checked for the assignment of that role. A unique User or Group should be assigned to that role. If more than one group / user is assigned to then, you will receive a warning.
  - If you assign a Group, at least one of the group members should be a Project Manager.
  - If you assign a User, the user should be a Project Manager.
- If you choose an attribute to assign the Project Manager, the attribute should resolve to the user name of a user or the name of a group.

**Documents Tab**

In this tab, you can set options to copy the incoming documents to the project or projects being created.

✕
Create Project

Project

Documents

Iterate

Project Attributes

WebCenter

Copy/Move/No Copy or Move

Copy incoming Documents

Move incoming Documents

Target Folder Name

Products

[ ]

Do not copy or move incoming Documents

i

Cancel
OK

- **Copy Documents** (default): lets you copy the documents to the new project.
- **Folder Name:** specify the target folder in this field. If you leave it empty, it will take the root folder as the target folder.
- **Copy incoming documents as Link:** enable this to copy the documents as links in the new project.
 

**Note:** If you are creating projects in a remote WebCenter, you cannot copy the documents as links.
- **Copy incoming documents as new version if they already exist:** check this to copy the documents as new versions.
- **Raise revision if Document already exists:** enable this to raise the revision while copying or updating. This will raise the revision letter (and create a new version) if the document already exists.
 

**Note:**  
The option is visible only if your **Admin > Preferences > General > Allow increment Document Revision when uploading a new Document Version** is on.
- **Copy Viewer Annotations:** use this option to copy viewer annotations of documents while copying.



**Note:** This will not work if you are copying to a remote WebCenter.

- **Move Documents:** choose this to move the documents to the newly created Project. You can specify a folder for this document.



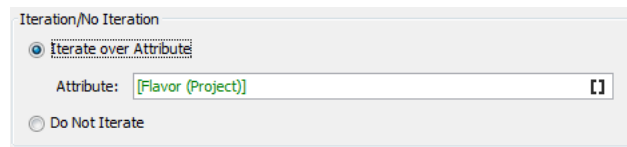
**Note:** It does not work for remote WebCenter projects.

- **Do Not Copy Documents:** choose this option if you do not want to copy the documents to the new project.

### Iterate Tab

You can create multiple projects at once using the options in this tab. The default option is **Do not Iterate**.

To create multiple projects over an attribute, choose **Iterate over Attribute**.



You can select this **attribute** via a SmartName or by manually typing in the attribute. Based on the resolved value of this **attribute**, this node will create multiple projects. For example,

- If the SmartNames resolves to a multi-value (text) attribute indicating languages, the created projects will be language variants. You will get the same result when you type in the attribute values. For example, if you type in Dutch | French | English, the iterator value will be "Dutch", "French" and "English". As a result of running the task in a Project, you can expect three new Projects corresponding to each language.



**Note:** While iterating project creation, you can send only the related attributes to the created projects by specifying them `iterator value` as the attribute in the **Project Attributes** tab.

- When multiple documents with a multi-value document attribute (for example, Dutch | Spanish | English as the Iterator) arrive at this step:
  - In case there are two values for the attribute (e.g. Dutch and English), this document will be attached to both the Dutch and English projects.
  - If the documents' attribute value is left empty, they will not be added to any of the projects created.
  - The documents without the specified **attribute** will be attached to all the created projects.
- If the SmartName resolves to an integer or if you type an integer (for example, you type 3), the projects will be created based on these numbers.

For example, if the value resolves to 3, the iterator value will be 1, 2 and 3. You will get three new projects when the task is finished.





**Note:**

If the attribute is missing in the Project, you will get an error.

```
Attribute not found
```



**Important:**

- Do not aim to create more than a hundred projects using the **Create Project Node** . You will be warned if you do so.

```
Maximum number of projects that can be created at once exceeded.
```



**Tip:** You can use the **Iterator Value** SmartName from the **Iteration** category in the other node parameters such as the Project Name or description.

### Project Attributes Tab

For setting project attributes of the new projects, click on the +. Add the

- **project attribute** and the corresponding **value**. Enter this value via a SmartName or by manually typing in.



**Note:** The attribute values are set regardless the Attribute Category of the new project.



**Note:** If the SmartNames are not resolved, it will not fail project creation. However, the attribute value will not be set in the new project.

- You may also assign **roles** via attributes.

### WebCenter Tab

In this tab, define the WebCenter on which you want the new project :

- **Current WebCenter**(default): Use this to create the new projects on the WebCenter where the workflow is running.
- **Other WebCenter:** Use this to create the new projects on a remote WebCenter. For this to work, the parameters specified in the node (for example, the Project Manager) should be present on the remote WebCenter.
  - **WebCenter URL:** The URL of the remote WebCenter.
  - **WebCenter User Name:** The user name used to log in to the remote WebCenter
  - **WebCenter Password:** The password used to log in to the remote WebCenter for the specified user name.



**Note:** If a user exports a task type containing a node with this option, this field will be blank in the generated XML.



**Note:** You may copy the documents remotely, but you cannot add them as links.

For every project created, you will find a log in the **Project History**.

### Create Graphics Placeholders

You can use this node to create graphics placeholders to represent print area information available in the Collada document, referenced in the input document attribute called CAD\_REFERENCE. Any user with Task Type creating rights can use this node to create graphics placeholders. Placeholders can be replaced with actual printable parts later.

These graphics placeholders are created to represent print areas available in the Collada document. Name of these graphic placeholders will be created with print area id and the side of the print area, like for example "printarea1\_front".

Based on the node configuration, each print area is extracted once for the printable side front or twice for the printable side front and back.



**Note:** When the input document is a component document, then the Thumbnail is updated.



### Parameters

- **Template Project:** This is a smart name input field to get project name(s) where document template is available.
- **Document Template:** This is to get document name available in the mentioned **Template project**. This document is copied for creating placeholder documents for each print area available in Collada document. Template document is having hard coded document type of an attribute called CAD\_REFERENCE. This attribute will reference Collada document from where print area information is extracted. Two hard coded reference properties namely CAD\_PRINTABLE\_PART and CAD\_PRINTABLE\_PART\_SIDE are expected to be in the CAD\_REFERENCE attribute to hold the print area id and value of front/back.
- **Target Folder:** Name of the folder where new graphic placeholder documents are created.
- **Target Reference Attribute:** Select any one document reference attribute from the drop down to attach graphic placeholder documents as reference in the incoming document. Selected document reference attribute is expected to have one reference property called CAD\_PRINTABLE\_PART, to hold the name of the print area.
- **Extract printable part for front and back:** An option is provided to decide whether printable parts are expected for printable side front and back both or only for printable side front. Placeholder for back side is only created if the print area information contains printable part for back and this option is enabled.

### Create ColorCert Job

ColorCert is a software application which helps you to get accurate, consistent precise colors and print the specifications from pre-press to production process control.

In this workflow node, information that is available in WebCenter as e.g.

- Projects, Colors selected from a library and assets within WebCenter
- Scorecard rules and profiles (ColorCert profiles, ICC profiles, CGATS profiles) that are stored as regular documents in WebCenter



**Note:** The documents are tagged with the **Mark** node in the work flow and then referred to by the mark name. For Example, specify the ColorCert rule document, mark it and select the tag in the **ColorCert Rule** parameter

are all called to create a CCJ (Color Cert Job) and a media Strip (PDF file). Along with these, a CCJZ file for debugging purposes is also uploaded back to the current project.

The workflow requires the following parameters in the respective tabs:

- 1. Job Details:** Job Name, Job number, customer, business unit, brand, variety, UPC and Product Order Number.
- 2. Output:** Artwork Target, Orientation values like surface or reverse, Screen Count, Screen Type like lpi or LCM, Lot Size, Supply As either Roll or Pallet, or Sample, Printer and Separator.



**Note:** All the parameters are SmartNames and maps to parameters with the same name in the ColoCert job or the Job Details and Output tabs.

- 3. ColorCert Assets:** ColorCert Rule which uses the tag for marking the ColorCert Rule document and Substrate file for the ColorCert job.
- 4. Color :** Specify the following with the tag used for identifying them

- **Profile:** Either ColorCert profile, ICC profile, CGATS profile.
  - **Enable Autoload:** If checked, substrate, primary or builds/overprints are automatically loaded from the profile. In that case it is also possible to explicitly specify colors that should be removed. This should be a pipe-separated list of the color names.
  - The **Remove Colors** field is SmartName enabled.
- **Primary Colors:** Colors that are specifically tagged are picked in this parameter.
  - **Enable Custom Curves:** If checked, you can specify the Dot Gain Method and the following nominal and target dot gain values: Minimum Dot, Highlight, MidTone and Shadow. Those values will be applied to all primary colors that are not loaded from the profile. If the nominal value is not specified, the value will be defaulted from the rule.
    - Valid values for the dot gain method are: Default, Relative Colorimetric, Murray Davies, ColorCert Relative Colorimetric and SCTV.
    - Minimum Dot nominal value should be higher than 0 but lower than or equal to 10.
    - Highlight nominal value should be higher than 10 but lower than or equal to 34.
    - MidTone nominal value should be higher than 34 but lower than or equal to 65.
    - Shadow nominal value should be higher than 65 but lower than or equal to 99.

Example: A Shadow Value of 1.3 and a Shadow Nominal of 75 would give a dot area target of 76.3.

- **Spot Colors:** Colors that are specifically tagged are picked in this parameter.



**Note:** Either a profile or colors need to be selected for a ColorCert job to be created.

- 5. Mediastrip:** SmartName enabled fields including
  - **Patch Width:** for the width of the mediastrip

- **Patch Height:** for the height of the mediastrip
- **Strip Type:** Type of the strip, either can be **ScanSingleRow**, **ScanTwoRow**, **ScanInkByInk**

**6. Configuration**

- **Cloud Connection** Dropdown where we show the available Cloud Color connections
- **Folder** The folder in the WebCenter project where the document is uploaded to. When the folder does not exist, it is created. When the document already exists in the folder, the workflow will create a new version of this document. If the document exists already and the folder specified is different than the folder of the existing document, the workflow generates an error.
- **Document Name** (CCJ, PDF) This is the name of the resulting CCJ and PDF file. When the document name is not unique in the project, WebCenter will take the document with the given name and will create a new version of the document. In this case, the folder name is ignored.

The resulting CCJ file contains the colors specified by the primary and spot color tag. Color that are in the profile, but not in the list of primary or spot colors are not included in the CCJ file.

If a color that is not connected to the Cloud (ESKO COLORS or PantoneLIVE) is used as input, the color details (spectral data) must be available in the associated ICC profile. If not, the resulting documents are directed to the warning output pin.

**Color Preflight**

The Color preflight workflow node validates the colors referenced in the actual document against the specifications provided and generates the preflight results in the workflow.

**Preflight Results** are stored as attribute value(s) of the document(s) which may include preflight status, preflight report or both. Preflight results could indicate whether all the expected colors are found or not and if any unexpected colors are found.

In this node, following information has to be provided in four tabs.

**Color Preflight**
✕

Color Specification	Document Colors	Ignore	Preflight Result
Color Specification	<input style="width: 90%;" type="text"/>	[ ]	[ ]
Palette Specification	<input style="width: 90%;" type="text"/>	[ ]	[ ]
Palette Color	<input style="width: 95%;" type="text" value="Please select or start typing..."/>		

i

Cancel
OK

**1. Color Specification**

- **Color Specification:** Specify the attribute(s) that has specification details for the color.
- **Palette specification:** Select the Attribute / task specification that holds the direct color specifications in the palette(s).



**Note:** Either the **Color Specification(s)** or the **Palette Specification(s)** is required for preflight.

- **Palette Color** Specify the attribute that has the color(s) information in the incoming document(s).

For each incoming document, the workflow fetches the referenced color information, and compares it against the specification(s) provided.



**Note:** Colors having the attributes with matching condition specified in the **Ignore** tab will be ignored from the actual color list.

- 2. Document Colors:** Select the Document Reference attribute, that holds the colors list in the incoming document.
- 3. Ignore:** Specify the values for attributes that you may want to ignore from the actual colors from the incoming document(s).

You can add multiple conditions in this tab, and even if any one condition specified in this tab is true, the color is ignored from the preflight check. To ignore, select the attribute for which you want to validate either by **Matches** condition or **Contains** condition for a given **Value**.

- 4. Preflight Result:** Select **Preflight Status Attribute** or **Preflight Result Attribute** or both in the respective drop-downs.

**Preflight Status Attribute:** Ensure the selected attribute is available in the attribute category of the incoming document to set the Preflight Status. Resultant values possible for this attribute are:

- **Additional Colors** when the incoming document has some additional colors than specified.
- **Missing Colors** when the incoming document has some missing colors from the specified colors.
- **Both Additional and Missing Colors** when the incoming document has both additional and missing colors.
- **Matched Colors** when the incoming document has exactly same colors as the specifications.

**Preflight Result Attribute:** Ensure the selected attributes is available in the attribute category of the incoming document to set the preflight result provided in the rich text editor field.

Preflight Result Field is to provide data to be set in the Preflight Result Attribute selected.



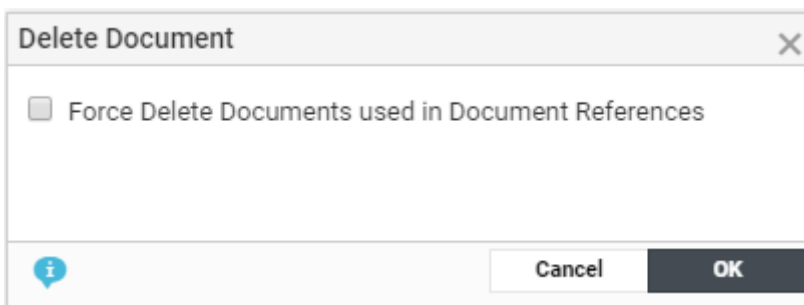
**Note:** There are four new SmartName introduced, that can be used to fill in the details for the preflight result:

- **Additional Colors:** To resolve to the names of colors that are available in the incoming document but not in the specifications.
- **Ignored Colors:** To resolves to the names of colors that are ignored from the document colors for preflight check.
- **Matched Colors:** To resolve to the names of colors that are available in both incoming document and specifications.
- **Missing Colors:** To resolve to the names of colors that are available in the specifications but not in the incoming document.

### Delete Document

This node allows you to remove documents from WebCenter whenever it is no longer required in all the projects it is present ( in case of linked documents).

There is an option to **Force Delete Documents used in Document References**. When this option is selected, the node deletes the documents that are used as a document reference in a **Project** or a **Document** or in a **Task** and the document is then removed from the document reference(s) attribute value too.



**Note:** Documents cannot be deleted, when it is locked or pending for approval actions or is part of an inactive projects.

After deletion, the Document is no longer available in WebCenter. Historic information about the document can be found in the Project History.

### Delete View Files

This workflow node allows you to delete the view files of the incoming documents. Using this node, you can clear out the view files for all versions of the Documents.

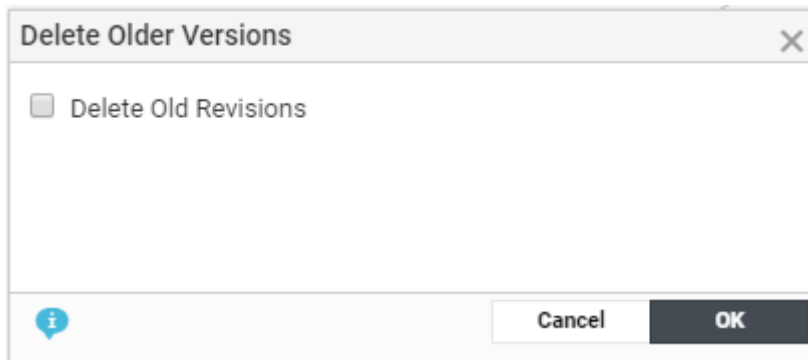


**Note:** View Files of Page List documents are not deleted.

### Delete Older Versions

This node enables you to delete old/unused versions of a Document from WebCenter.

In this node, the older versions of the input Documents are removed, and the remaining Versions have their version numbers reordered.



When enabling the **Delete Old Revisions** option, only the latest revision is kept. If the option is turned off, the latest version of each revision will be kept.

The document version is only removed when

1. It is not linked in any project where it is the most recent document
2. It is not used as a value for any document reference attribute
3. It is not used in any cart or task
4. It is not the last version of a revision
5. It does not contain final approval information.

**Note:** Document versions will not be deleted when the security settings of WebCenter do not permit users to remove Documents with Approval actions.

### Execute JavaScript

Use **Execute JavaScript** step to write and execute JavaScript code in a workflow. To access the JavaScript editor, double-click the node.

You can use the WebCenter JavaScript API by using the API object. For example, `API.getProject()` returns a project object representing the current Project.

Use **CTRL+Space** to enable auto-completion in the node. You will get pop-up with all possible options related to the typed syntax.

If you type `API` and enter **CTRL+Space**, a popup will list all possible methods of `API` (in this case 'getProject').

If you type `API.getProject()` and enter **CTRL+Space**, you will see a list of all possible functions of a project.



**Note:**

- The auto completion does not list options if you nest multiple functions: for example, if you type in `API.getProject().getChildProjects()[0].setName(API.getProject());` and enter **CTRL+Space** you will not get a list of options.
- By default, a script can be of maximum 100.000 characters.

The screenshot displays a case where the workflow calculates if a Parent Project (Program) is at Risk. In this case, it updates the Parent Project's status to "At Risk" if more than 50 percent of the Child Projects are at risk.

```

Execute JavaScript
1  var project = API.getProject();
2
3  var children = project.getChildProjects();
4
5  var count = 0;
6  for(var i = 0; i < children.length; i++) {
7      var child = children[i];
8      var status = child.getStatusName();
9      if (status == "At Risk") {
10         count++;
11     }
12 }
13
14 var percentage = (count/children.length)*100.0;
15 if (percentage > 50) {
16     project.setStatusByName("At Risk");
17 }
    
```

Line 17, Column 2 – 17 Lines, 373/100.000 Characters

Cancel OK

This workflow step executes JavaScript in a sandboxed environment which allows you to execute the java classes of WebCenter API exclusively.



**Note:** There is a limit of the stack depth (by default, 10,000) to avoid infinite recursions and there is also an instruction count limit (by default, 1,000,000) to avoid infinite loops. The maximum script size is also enforced during execution.

Any JavaScript error puts the token on the error pin with an appropriate error message.

Detailed list of Java Script API's that can be used with this work flow node are available in WebCenter JavaScript API document.

**Allow calling external API from JavaScript**

It is possible to call external API Connections (reference to external api connections documentation) from a JavaScript node. Use the methods `API.doExternalAPICall(...)` and `API.doExternalAPICallWithBody(...)` to make calls to external systems.

**Related Information:**

**KB Article:** [How to Import a Packaging Content Management Scenario for Easy Configuration](#)



**KB Article:** [Where can I find examples of the Execute JavaScript workflow node](#)

### Export to XLIFF Format

Use this node to export your Text statements to be translated in a translation software that uses XLIFF content (e.g. Trados or SDL). After translating, you can [import](#) them back.

#### Parameters

- **XLIFF File Name:** Specify the name for your target document.
- **Target Folder:** Specify the folder where the exported XLIFF file should be placed.



**Note:** By default, the document is exported to the root folder of the current project. If an XLIFF file (of the specific name) already exists, then exported document will be uploaded to the same folder as a new version. If there are no content to be added for export to XLIFF, then instead of generating an empty file, output is sent to **No Files** pin.

- **Source Language:** Specify the master language of the text content.
- **Target Language**



**Note:** You can use **SmartNames** to set these parameters.

- **Export statements only if Master Language is signed off:** Check this to specify that the exported XLIFF should only contain statements if their master is approved.
- **Export statements only if target language is already added to document:** Option to not add statements without the target language. This is unchecked by default.
- **Export Statements only if Target language is not signed off**

This step creates an XLIFF file from the incoming text document (.wcc) and uploads it to the current Project.

#### Notes

- If the source text is in rich text format, then the exported XLIFF file will have rich text identifiers.
- If a graphics file arrives at the node, it will search for Text Document References. If there are referenced text documents, an XLIFF file is generated.
- Comments added in the text content document will be exported to XLIFF file.

### Export to GS1 Format

You can export all of the text content, table content, symbols, images, Barcode attached to an artwork to XML in GS1 format in a workflow.

For example, when a designer creates an artwork in **Adobe Illustrator** with placeholders for dynamic content, they are tagged with appropriate GS1 Element Types (Content Types). Artwork is then imported into WebCenter and Dynamic Content is then processed and approved in WebCenter. You can then use this node to generate the GS1 XML file with the updated information. This node will add the output file to the current Project. You can send this GS1 XML file back to the designer to place the content on the artwork.

Update and configure the following information in the work flow node to export to GS1 format:

- **GS1 File name:** Specify the name for your exported document. It is possible to use SmartNames to generate file names. If the file name is not specified, file name will be generated automatically.

- **Folder:** In this field, specify the folder where the exported GS1 file should be placed.
- Choose **Include Empty Content in GS1** to view all the elements in the **table document** else only elements with content are exported.



**Note:**

Default folder location is the root folder of the current project. If a GS1 document (of the specific name) already exists, then exported document will be uploaded to the same folder as a new version.

The node will create a GS1 XML document for the specified languages with Language index mapping. You can add a row for each locale mapping to include the languages in the artwork.

- **Locale Index:** Specify the sequence number referencing the locale index to the language. **Locale Index** represents the GS1 `localeSequence` tag.
- **Language:** Select the language corresponding to the **Locale Index** from the drop-down. The drop-down will list all the master and translation languages listed in the system.

**Export Chili to PDF**

You can use this workflow node to export Chili documents to PDF format. By default, the exported PDF files are routed to the current project and the root folder with the incoming Chili file name. You can also specify the target location of the exported PDF document including the **Target Project**, **Target Folder** and the **Document Name**.

**Specifications**

- **Target Project:** Specify the location where the exported PDF documents are to be placed
- **Target Folder:** Specify the folder in the **Target Project** where exported document are to be placed.
- **Document Name:** Specify the new PDF document’s name. If left blank, the document name will be same as the incoming document’s name with the extension `.pdf`.
- **PDF Export Setting:** Specify the PDF Export Settings name as defined in the CHILI Server. The pdf document is created using the configuration defined in the XML of the export settings.



**Note:**

If there is an existing file in the target location with the same file name as the exported pdf, then the node will fail. Alternatively, you can choose the option **New Version if Document already exists**.

**Export InDesign to PDF**

You can use this node to generate a PDF from an InDesign document. This workflow node provides the option to select target project, target folder, document name, and PDF preset settings. You also have the option to upload a new version of the document if the document already exists. You can choose to generate a PDF output after applying the referenced contents to the incoming InDesign document without updating the incoming document.



**Note:** To know more about scalability, or the behavior of applying content, please refer to the section [Apply Content in InDesign](#).

**Export Structured Content**

DITA documents stored in WebCenter may be required to be sent to other stakeholders like translation agencies or media houses. When a document is required to be shared with external stakeholders it is important that it is available in commonly used formats.

This workflow node converts the DITAMAPS (a collection of DITA files referenced) or the DITA topic to a flattened zip file along with the related topic references.

To ensure the document is selected use a **Select** workflow node and specify the following information in this workflow node:

- **Document Name:** Name of the document in the output zip file
- **Target Folder:** Location where the output zip file is uploaded

Ensure all the topic references mentioned in the ditamap are present in the project. To include the language attribute, specify that attribute value in the input document itself.

**Export Structured Content**
✕

**Document Name**

[ ]

**Target Folder**

[root]

[ ]



Cancel

OK



**Note:** This workflow node also supports exporting PCM text statements residing in DITA topics, which are placed within the <div> tags.

### Adding Attributes to DITA on Export

On export the value of any <othermeta> elements on a DITA Map will be refreshed with the corresponding attribute value for that other metadata element in the project

### Get Dependent Colors

In the ESKO Cloud and/or in Pantone LIVE, there are master/dependent relationship that exists between the colors. Given a master color and conditions, there can be a dependent color linked to the master color. This workflow node syncs the dependent standards belonging to the master colors based on the conditions and shows these colors in the input document attributes in WebCenter.

**Input** The inputs to the node are the document(s) that contain the master colors. Specify the following information in this tab.

- **Master Colors:** Specify an attribute of the document that contains the master colors.
- **Ink Type** Specify a Smartname that represents an ink type.
- **Printing Technique** Specify a Smartname that represents a printing technique.
- **Substrate** Specify a Smartname that represents a substrate
- **Finishing** Specify a Smartname that represents the finishing profile and it is relevant for Pantone Live colors only.

In the **Output** tab, specify the document reference attributes that you want to be updated for

- **Dependent Colors** This is a mandatory field. The dependent colors to the master colors specified is added to the attribute.
- **Missing Dependent Colors** The masters colors for which no corresponding dependent colors are found are added here

Specify the **Cloud Connection** that has been configured to the ESKO cloud for the Color Service in the **Configuration** tab.

### Import Dynamic Graphic

When this node is executed, images or symbols are extracted from an incoming artwork file along with expected number of occurrences from either AI files ( pdf) or Chili files and are added to the artwork as document references.

#### Parameters

##### Symbol Tab

- **Symbol Library:** Field for providing the Project name(s) where all the Symbols are located. You can either specify multiple project names with a "|" between them or provide SmartName which resolve to multiple project names. Read more on this is [How WebCenter finds previously used images](#) on page 921
- **Placeholder Document Template:** When matching symbols are not found in the Symbol Library, this graphic document is copied into the current project as a placeholder which can be replaced with actual symbol later.
- **Upload Folder:** Folder where the placeholder graphic documents are copied into.
- **Document Reference Attribute:** You can choose the Document Reference Attribute of the Artwork file that has to be used to link the Symbols.
- **Find Previously Used Symbols:** If this option is selected, the node will find if an existing symbol in WebCenter matches before creating a new document. In case the matching symbol was not found, the node will create a new document.



**Note:** This option is applicable only if the GS1 XML created in the system has been added to Artwork file through Dynamic Content.

##### Image Tab

- **Image Library:** Field for providing the Project name where all the Images are located. You can either specify multiple project names with a "|" between them or provide SmartName which resolve to multiple project names.
- **Placeholder Document Template:** When matching images are not found in the Image Library, this graphic document is copied into the current project as a placeholder which can be replaced with actual image later.
- **Upload Folder:** Folder where the placeholder image documents are copied into.
- **Document Reference Attribute:** You can choose the Document Reference Attribute of the Artwork file that has to be used to link the images.
- **Find Previously Used Images:** When this option is selected, the node will find if an existing image in WebCenter matches with the reference property specified from the artwork before creating a new document. In case the matching image was not found, the node will create a new document. Read more on this is [How WebCenter finds previously used images](#) on page 921



**Note:** This option is applicable only if the GS1 XML created in the system has been added to Artwork file through Dynamic Content.

#### Import of Chili Documents

When the incoming document is a Chili file, then only the Chili variables with the data type as image are imported and stored in the ARTWORK\_VARIABLE.



**Note:** Symbols are also considered as images in the Chili File.

### How WebCenter finds previously used images

When an artwork is imported into WebCenter, all its contents are also imported along with its meta data ( XML)

Now when the images are imported and if the option **Find previously used Images** is enabled, before creating a new document, search is made on the value in the reference property EXTERNAL\_IMAGE\_PATH to find if any documents exist with the same name or matching image path.

If no matching document is found, then a placeholder document is copied into the project and its attribute values are set accordingly.

Similarly when symbols are imported and if the option **Find the previously used Symbol** is enabled, before creating a new document search is made on the value in the reference property SYMBOL\_NAME to find if any documents exist with the same SYMBOL\_NAME. If no matching document is found, then a placeholder document is copied into the project and its attribute values are set accordingly.

### Import Dynamic Barcode

When the node is executed, Dynamic Barcodes along with the expected number of occurrences are extracted from an incoming artwork file. For each Dynamic Barcode, a new document is created and these Barcode documents are added as Document References in the Artwork.

#### Parameters:

- **Document Template Project:** Field for providing Project name(s) where the **Barcode Document Template** is present. You can either specify multiple project names with a "|" between them or provide SmartName which resolve to multiple project names.
- **Document Template:** Template used for creating a new document that stores the Barcode information.
- **Upload Folder:** Folder where the new Barcode documents are created.
- **Document Reference Attribute:** You can choose the Document Reference Attribute of Artwork file that has to be used to link the Barcode document.
- **Find previously used Barcode:** If this option is selected, the node will find if an existing Barcode in WebCenter matches before creating a new document. In case the matching Barcode was not found in the System, the node will create a new document.



**Note:** This option is applicable only if the GS1 XML created in the system has been added to Artwork file through Dynamic Content.

### Import XLIFF Content

In a translation workflow involves third party solutions (e.g. Trados or SDL), you will get your translated content as XLIFF documents (.xlf or .xliff). You can use the **Import XLIFF** step in your workflow to import the translated statements into the WebCenter Text Document (.wcc).

If a particular language is missing in the Text Content document, this step will add that language.

This step will update the document only if the statement is in **Draft** or **Pending Sign off** or **Signed off rejected** state.

#### Parameters

- **Approve Translation:** If you enable this all imported content will be **Signed off**.  
If this option is turned off, the imported text will be in the **Ready for approval** state.

- **Create Translation:** If you check this option, a new translation statement will be created even if the language does not exist in the document.

If this option is turned off, the languages should exist in the document before the XLIFF content is imported. Otherwise, the imported content will not be added to the document.



**Note:**

- If the statement is in **Signed off** state, it will not be updated with the XLIFF content.
- This step may update the Text Document partially, if there are reasons for the other statements (parts) to fail. For example, if there are three languages, it is possible that only one language statement is updated.
- Rich Text Support: If source and target languages contents are rich text format, then the same rich text identifiers are added into translation content in the imported text content file.
- When the import of the XLIFF document is failed, the error pin is updated with the reason for the failure.
- Any new comments given during translation is imported.



**Warning:** This step will update the language statement in WebCenter regardless of the User Permissions.

**Import Dynamic Text**

The **Import Dynamic Text** node extracts the **Dynamic Content** from your artwork(s) as **Text Content Documents** from either your AI files or Chili files. For AI files, the expected number of occurrences of each text statement is also imported. You can configure this node to import the text documents with a link to specific **Document Reference Attributes** and **Document Templates**.



**Note:**

1. You need a **Copy Sheet Attribute Category** with Text document references as a pre-requisite to configure this node.
2. If the input is a Chili document, then read this for detailed explanation [Import Dynamic Content from Chili file using Import Dynamic Text node](#) on page 926

**Parameters- Configuration tab**

- Specify the **Upload Folder** to store the extracted documents.
- Select the **Document Template Project** at the top of this tab. Enter the name of the Project(s) where you have configured your Text content specific templates. It can either be SmartName that resolves to multiple project names or pipe separated values.
- Specify the **Element Type**. You can create a dedicated row per **Element Type / Content Type**. Click + to add a row. Read also: [Configure Element Types as a List](#) on page 518.



**Tip:** Select **All Element Types** to import content that has no specified **Element Type**.

- Select the **Document Reference Attribute** for each row (per **Element Type**). Select the appropriate **document reference** from the drop-down listing all document references.

These document references keep the link between the artwork and its Text Content active while allowing you to process them separately.



- specify the corresponding **Document Template**. You can configure document templates for each of the Element Types in this SmartName enabled field.

Read also: [Creating a New Text Document](#) on page 529

The screenshot shows a dialog box titled "Import Dynamic Content - Sans Add.Prod.Var.Info" with three tabs: "Configuration", "Language Mapping", and "Existing Text Content". The "Language Mapping" tab is active. It contains the following fields and options:

- Upload Folder:** [root] [ ]
- Document Template Project:** PCM Text Templates [ ]
- Add Imported Text Content Documents to Output
- Add Translation Languages to Text Content Documents

Below these are three columns: "Element Type", "Document Reference Attribute", and "Document Template".

Element Type	Document Reference Attribute	Document Template	
Active ingredien...	PCM Technical ...	Active ingredi	[ ]
Active ingredien...	PCM Technical ...	Active ingredi	[ ]
Allergen statem...	PCM Legal Doc...	Allergen state	[ ]
Assembly instru...	PCM Marketing ...	Assembly instr	[ ]
Brand name	PCM Marketing ...	Brand name.wcc	[ ]
Consumer guara...	PCM Legal Doc...	Consumer guara	[ ]
Consumption co...	PCM Marketing ...	Consumption co	[ ]
Contact informa...	PCM Marketing ...	Contact inform	[ ]
Content claim	PCM Marketing ...	Content claim.	[ ]
Copyright trade...	PCM Legal Doc...	Copyright trad	[ ]
Cross sell	PCM Legal Doc...	Cross sell.wcc	[ ]
Declaration con	PCM Legal Doc	Declaration	[ ]

At the bottom right of the dialog is an "OK" button.

### Parameters- Language Mapping tab

You can map the **Locale ID** of the **Dynamic Content** to the corresponding language in WebCenter.

- **Language Index:** When you create the first row, this field will have the value 1 by default. When you create more rows, they will be numbered serially.
- **Language:** Select the language from a list of languages. Or use a SmartName to dynamically assign the languages.



**Note:**

1. By default, an imported statement is imported as Translated language if it does not exist as a Master Language in the Project's language attribute.
2. If you do not specify language mapping for the imported Dynamic Content, the node will try to find the language in the [Lists](#) (Master and Translation languages).

**Parameters-Existing Text Content tab.**

You can specify the reuse policy for matching Text Content Documents in this tab. Check **Reuse existing Text Content Documents** to match the incoming text with the existing documents.



**Note:**

- When you enable this option, the matched Text Documents will be copied to the current Project if it exists in another Project.
- If there is a 100 percent match with regard to the content and languages, the existing Text Documents will not be updated.
- If the incoming document is a Chili file, then the content of this tab is ignored while importing.

If left unchecked, the import will create new documents.

The following settings allow you to handle partial mismatches with regard to content or languages.

If there is a partial text match (with same list of languages), choose from:

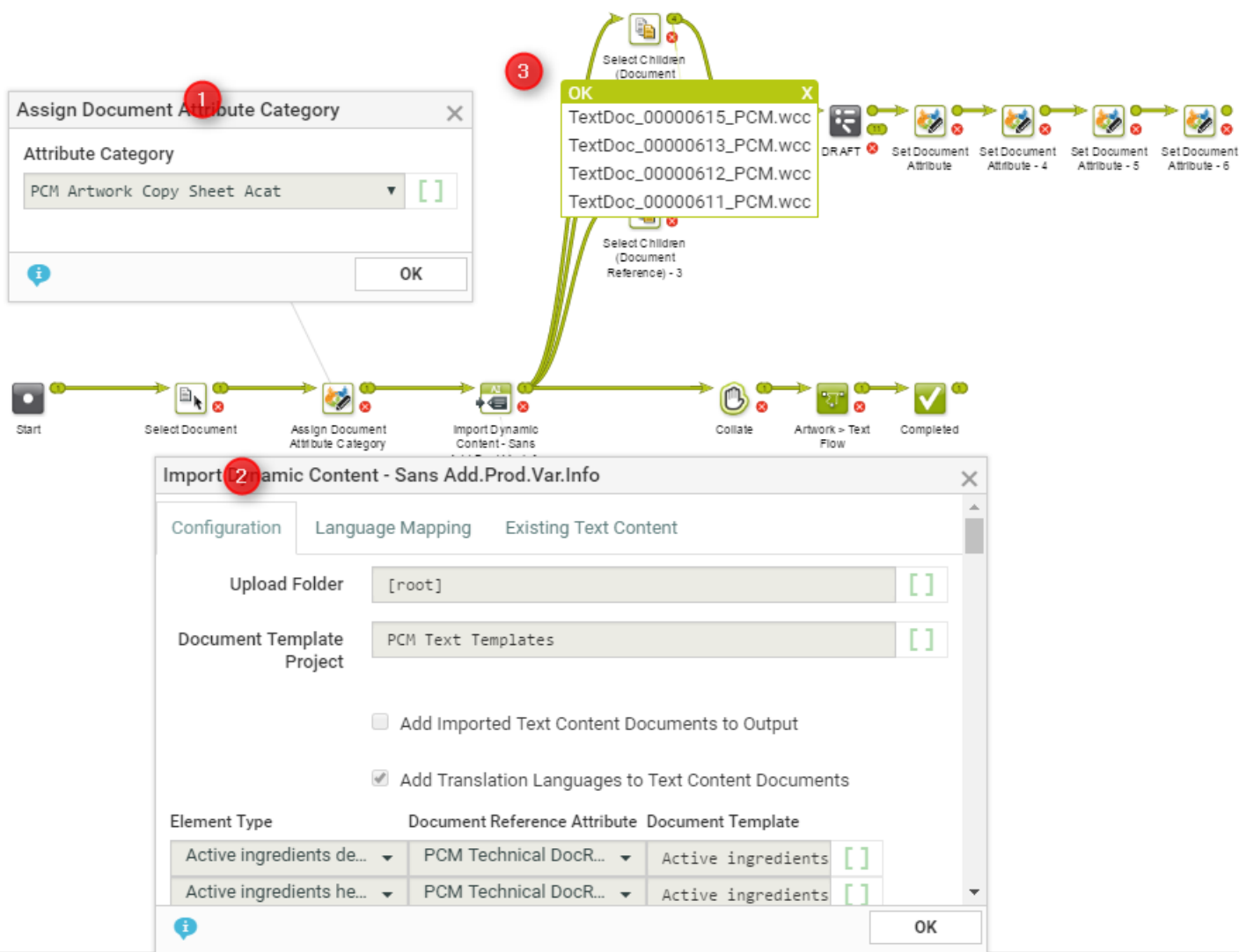
- **Replace text and Reset the Status to Draft:** The content will be updated and the document status will become **Draft**.
- **Replace text and Retain the Status:** The content will be updated retaining the current status.
- **Ignore Change:** In this scenario, the changes are ignored and the existing documents will not be updated in anyway.

If document is an Invariant, it will be reset to false.

If there is a language mismatch, then you have the option to:

- **Add language and Reset the Status to Draft** If document is available in different project, make a copy of document to current project, add language and content and reset the status of full document.
- **Add Language and Retain the Status** If document is available in the same project, then add new language and content, and reset the status of full document.
- **Ignore Change:** ignore the incoming language.

**Example**



In the example, when an artwork with Dynamic Content arrives at a Packaging Content Management workflow, the following steps happen:

1. The workflow assigns a **Document Attribute Category** to the artwork (parent). This 'copy sheet' category contains the **document reference attributes** to which the text content will be imported.



**Note:** If this step is not in the workflow, the **Import Dynamic Content** will use the Project's attribute as the default.

The category contains the **Document Reference Attributes** for:

- technical text statements,
- legal statements and
- marketing statements

to serve as the copy sheet template.

2. The **Import Dynamic Content** step maps the various Element Types to appropriate **document reference attributes** as configured.

- The [Select Children](#) nodes select the text documents (technical, legal and marketing) separately. These documents can be processed as separate text documents while keeping the link between them and the artwork alive.

**Import Dynamic Content from Chili file using Import Dynamic Text node**

Import Dynamic Text node handles incoming Chili document in the same way as other artwork files except it ignores any configuration in the **Existing Text Contents** tab.

WebCenter supports the following Chili data types for text content documents

- String, short text, long text, formatted text, unformatted, number for text content documents.

When imported, the imported Chili file is considered as GS1 compliant, if the **Instance Sequence** and **Locale** are already defined in the Chili Variable name.

You can see examples of how Chili variables are handled by the workflow node in the table below.

Before Import		After Import to WebCenter						
Chili Variable Name	GS1 Compliant Var	Derived ElemType	DocTemplate ElemType	Final Element Type	ARTWORK_VARIABLE	Instance	Locale	DocName ( if autonaming is not enabled)
MARKETING_COPY	No	MARKETING_COPY	BRAND_NAME	MARKETING_COPY		1	1	MARKETING_COPY.wcc
MARKETING_COPY_I1	No	MARKETING_COPY	VARIANT	MARKETING_COPY		1	1	MARKETING_COPY.wcc
MARKETING_COPY_I4_L5	Yes	MARKETING_COPY	RECIPE	MARKETING_COPY		4	5	MARKETING_COPY.wcc
UNKNOWN_VAR	No	UNKNOWN_VAR	BRAND_NAME	BRAND_NAME	UNKNOWN_VAR	1	1	UNKNOWN_VAR.wcc
UNKNOWN_VAR_I1	No	UNKNOWN_VAR	VARIANT	VARIANT	UNKNOWN_VAR_I1	1	1	UNKNOWN_VAR.wcc
UNKNOWN_VAR_I2_L3	No	UNKNOWN_VAR	RECIPE	RECIPE	UNKNOWN_VAR_I2	2	3	UNKNOWN_VAR.wcc
UNKNOWN_VAR	No	UNKNOWN_VAR	Not Configured		UNKNOWN_VAR	1	1	UNKNOWN_VAR.wcc



**Tip:** Chili variables should be GS1 compliant so that node can process the data correctly.

**Import Dynamic Table**

The **Import Dynamic Table** node extracts the **Tables** from your artwork(s) as **Table Content Documents**. You can configure this node to import these Documents with a link to specific **document reference attributes** and **table document templates**.



**Note:** You need an Attribute Category with Table document references as a pre-requisite to configure this node.

If there are multiple artworks coming into the documents, the node will iterate and extract tables from all of them.

**Parameters- Configuration tab**

- Specify the **Upload Folder** to store the extracted documents.

- Select the **Document Reference Attribute** for the table. Select the appropriate **document reference** from the drop-down listing all document references.
- **Add Imported Table Documents to Output** . Check this if you want the document sent to the output pin.
- **Reuse existing Table Documents**. The document version specified in the document reference will be reused to store the data instead of creating a new Table Document. If there are no matching tables in the system,new document will be created.

### Document Template Tab

- Specify the corresponding **Document Template**. Select the Table Template (either simple or Smart) that corresponds to the incoming Table.

Select the **Document Template Project** at the top of this tab. Enter the name of the Project(s) where you have configured your table templates. You can either specify multiple project names with a "|" between them or provide SmartName which resolve to multiple project names. Read more in: [Creating a Simple Table](#) on page 1032

- **Add all Document Template elements** Check this to import all statements present in the document template.
- **Set values from Document Template**. Check this to take values from the Document Template for all matching statements. If there are no matching statements, the incoming values will be used in the table document.

### Parameters- Language Mapping tab

You can map the **Locale ID** of the **Dynamic Table** to the corresponding language in WebCenter.

**Language Index:** When you create the first row, this field will have the value 1 by default. When you create more rows, they will be numbered serially.

- **Language:** Select the language from a list of languages. Or use a SmartName to dynamically assign the languages.



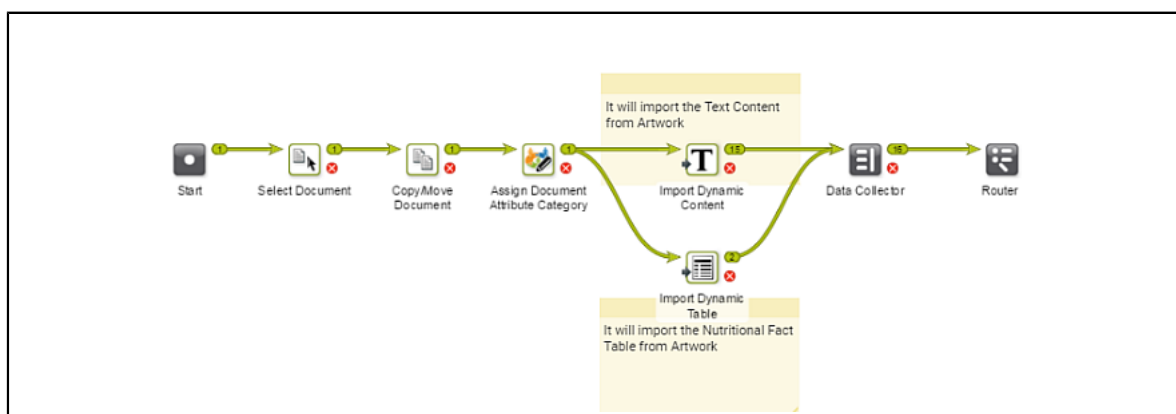
**Note:** By default, an imported table is imported as Translated language if it does not exist as a Master Language in the Project's language attribute.

For new Table documents created from this node, the master language table will be added in the **Draft** state, even if that language is not available on the artwork.



**Note:** If you do not specify language mapping for the imported Dynamic Content, the node will try to find the language in the [Lists](#) (Master and Translation languages).

-Read also: [Import Dynamic Text](#) on page 922.



In the example, when an artwork with Dynamic Content arrives at a Packaging Content Management workflow, the following steps happen:

1. The workflow assigns a **Document attribute category** to the artwork (parent). This 'copy sheet' category contains the **Document reference attributes** to which the text and table content will be imported.



**Note:** If this step is not in the workflow, the **Import** node will use the Project's attribute as the default.

The category contains the **Document reference attributes** for:

- text statements,
- and nutrition facts table

to serve as the copy sheet template.

2. The [Import Dynamic Text](#) on page 922 step maps the various Element Types to appropriate **document reference attributes** as configured.
3. The **Import Dynamic Table** extracts the table matching it to the document reference and the table document template.

After the extraction of the content, the workflow processes the content based on the requirements. You can, as in the example, update the incoming table and text using the workflow.

### Import Structured Content

You may sometimes require to create a working copy of the DITA files and its related assets (referenced graphics, other DITA documents or PCM statements) to edit the content without impacting the original documents that are stored in the library projects. This workflow node creates a zipped document in WebCenter representing structured content, comprising of a set of dita, ditamap and graphic documents which are referenced by one another and upload it to a local project in WebCenter.

You have to specify the following information to configure the workforce node.

- **Library Project(s):** (mandatory) Fill in a list of project names or by default is filled in with the current Project SmartName.
- **Folder:** the folder in the current project where the documents are uploaded to.
- **Statements Folder:** the folder in the current project, where the PCM Statements created during import based on `<div outputclass="PCM:...">` elements not matched with already existing PCM Statements in the system are saved to.
- **Package Language:** default en. When dita/ditamaps do not have the `xml:lang` attribute set, the default language is set to the Package Language
- **Master Language.** During the import process, the assets are looked up in the library by its ID. When the asset in the master language is found, we link the imported asset to the asset of the master language.

#### Output pins

- **Reused files:** the files that were already existing in the folder defined are found in reused file in the output pin.

- **New Files:** the files that are uploaded newly like the graphic files, resolved dita(map) files, , dita files where all the referenced documents are found in the new files output pin.
- **Files with missing References:** this output pin contains dita(map) files which contain referenced documents that were not found in the system (and which were also not provided in the zip file)
- **Error:** when no document was provided to the node.

### Handling dita/ditamaps

When handling dita/ditamaps, WebCenter will first read the properties from the file. For dita files, these are attributes of the node 'topic'/ 'task'. For ditamap files, these are attributes of the node 'map'.

When there are attributes that map on these properties, the value of the DITA property is stored in the WebCenter document attribute. Following properties are treated in Webcenter:

Topicmeta\othermeta: all these elements will be checked and the attribute name and content is loaded. When both are set; we store the values in WebCenter as attributes on the document where the name maps to the webcenter attribute and the content is the value of this attribute.

Topicmeta\proinfo\prodname when available, the content of this node is saved in the attribute SC\_PRODUCT\_NAME

the property 'ID' and the 'xml:lang': when importing the document, webcenter checks whether a document in the library exists with this ID (stored in the attribute SC\_ID) and this language (stored in the attribute SC\_LANGUAGE) and if a document with corresponding values exist, it will link the assets to the existing document, rather than creating a new document. The existing document will be re-used and will be put on the output pin "Existing Files" – see below for description of the output pin.

When checking whether a document exists, we only check the projects that are specified in the workflow Library Project(s) parameter.

The ID is a mandatory parameter, 'xml:lang' is optional and when not set, WebCenter takes the value of the workflow parameter Package Language.

The referenced document versions are stored in the document reference attribute 'SC\_REFERENCE' of the ditamap where the sequence number is stored in the property 'SC\_REFERENCE\_INDEX'.

For feedback reasons, the document names as found in the HREF attribute of the dita map are stored in the SC\_MAP\_HREF attribute. It can be that for a ditamap, not all referenced topics/ditamaps are found in the system. If this is the case, the missing reference document names are stored in the attribute 'SC\_MAP\_MISSING\_HREF'.

Other stored values are SC\_TYPE (DITA or DITAMAP) for lookup reasons and SC\_TOPIC\_TYPE (TOPIC or TASK).

### PCM Statements

PCM statements contained in the imported topics in a form of:

```
<div outputclass="PCM:ELEMENT_TYPE:[name of the element type]-{ID:[document version ID of this PCM Statement]}-LANGUAGE:[language code] > <p>[PCM statement content] </p> </div>
```

are recognized and processed as follows. Note that the ID of the PCM Statement is optional. Any other parameter inside outputclass property is ignored for the purpose of import.

- If the optional ID parameter is specified, the system checks whether a document with such ID exists. If so PCM <div> in the imported Dita document is replaced by: <div outputclass="PCM:[specified ID of the PCM Statement]"/>
- If the PCM Statement is not identified during the first step, current project and project(s) configured as a Library Projects (see the parameters of this WF node above) are searched for PCM Statements with the same Element Type, Language and content. If such a PCM Statement is found,

the PCM <div> in the imported Dita document is replaced by: <div outputclass="PCM:[ doc. version ID of the found PCM Statement ]"/>

- If there is no existing PCM statement found, a new Rich Text PCM Statement is created from the [PCM statement content] and saved as a PCM Statement document (\*.wcc) to the current project to "Statements Folder" (see the parameters of this WF node above). The same text content in different languages is not recognized and a new independent PCM Statement with corresponding language is created for each of them. The PCM <div> in the imported Dita document is replaced by: <div outputclass="PCM:[ doc. version ID of the created PCM Statement ]"/>

### Invite Members to Project

This workflow node can be used to invite a **User / Group / Role to a Project** in the work flow itself by the users who can create Task Types.

You can specify any active member to be invited to a project based on the **Group** or **Role** or even specify a single user in the **Members** tab. This can also be done using Smart names. When you select a Group, you can further select a member as **Group Assignee**. All the permissions are inherited based on the Role selected to the added member. If no Role is assigned to the user, default( only view) permission is available.

Invite	Name	Role Assignment (Permissions)	Group Assignee
User	SOBK	2020 ROLE	
Group	ARD_TEST1		ARD
Role	APPROVAL MASTER	APPROVER	
User	IL_USER3		

In the **Iteration** tab when iteration is on, each of the member rows are evaluated for each value of the attribute and then the members are added to the project.

You also have an option to choose **Do not iterate**, which is the default option.

### Merge Text Content

This node is used to merge incoming text content documents with matching text content documents in the configured Library project. For every incoming text content document, a library document should match the content for each of the languages in both documents.

This workflow node has the following configurable fields:

**Text Content Library(s):** Enter project names or a SmartName that resolves into multiple projects.

**Ignore Case while matching:** Select this field to match only the content, ignoring the case.

**Ignore white space while matching:** Select this field to ensure that leading and trailing spaces are ignored.



**Approve Content:** Enable this field to approve the merged content. When the master language of the merged content is not already approved, then the newly added language will not be approved.

**Library Upload Folder:** Specify the folder, where the copied document should be placed in the Library project.

**Ignore Translation Languages:** Enable this field to only check on the master language when merging text content. It will allow to update translations in case only the master language is matching.

**Ignore Rich Text Differences:** Enable this field to ignore differences in rich text in the content matching. For more details about Rich Text, see [What is Rich Text ?](#)

**Match Element Type:** when enabled, the element types of the relevant documents will be matched. If the element types do not match, the incoming text document is added as a new document to the library.



**Note:** Unselecting this field matches just content, not element type, for matched documents.

**Merge Text Content Documents** ✕

Text Content Library(s)  [ ]

Approve (new) Library Content

Ignore Case While Matching

Ignore Rich Text Differences

Ignore Translation Languages

Ignore White Space

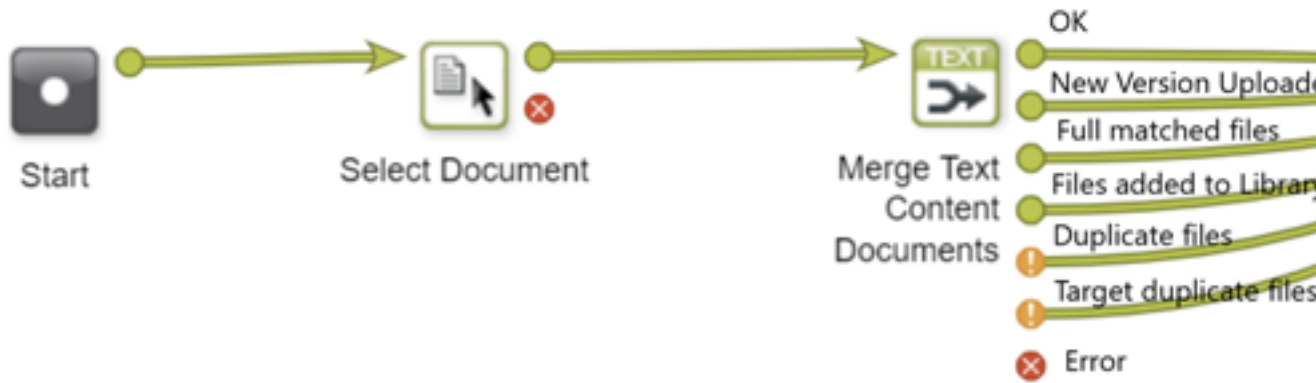
Match Element Type

Library Upload Folder  [ ]

i

Cancel

OK



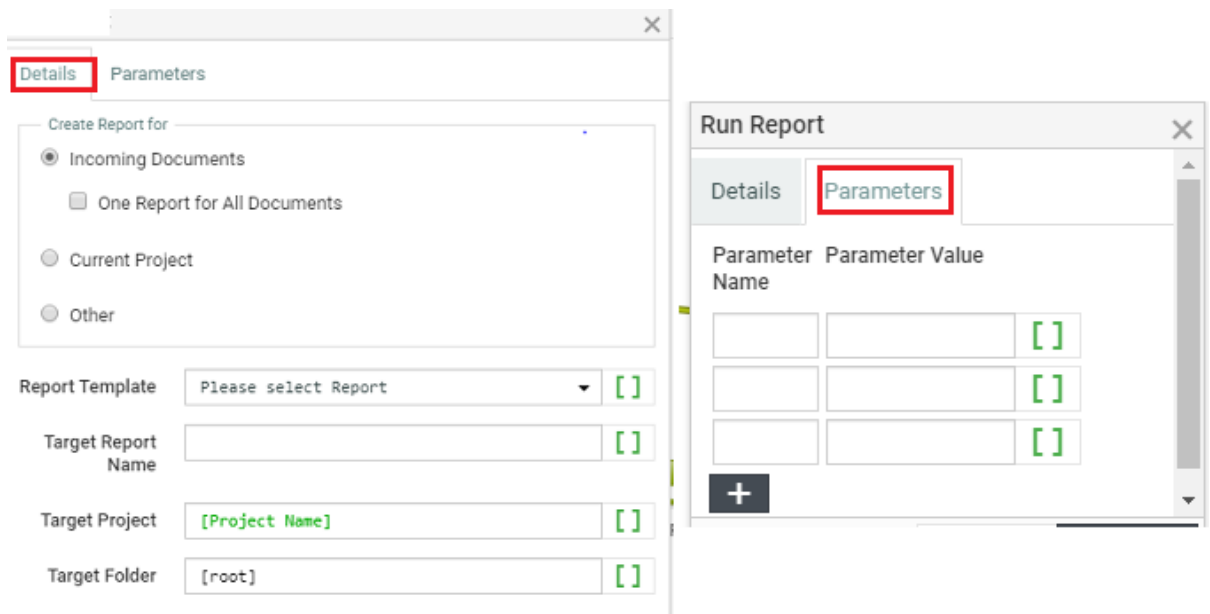
### Run Report

Use this node to generate a report for the incoming document(s)/ Current project/other reports according to the setup in the node.

#### Details Tab

You can **Create Report for**

- **Incoming Documents:** Choose this option to generate a report for the incoming documents into this node. If there are no incoming documents, the node will fail.
- **One Report for All Documents** option generates a single report for all the incoming documents.



- **Current Project:** Choose this option to generate report for the current project.
- **Other:** Choose this option to generate any other report.

You can choose the **Report Template**, **Target Report Name** and **Target Project** and **Target folder** or add a smart names for these fields.



**Note:** It is mandatory to mention the Report Name.

### Parameters tab

You can specify the parameters that are required for the report to be generated in this tab. If no parameters are provided, default parameters configured in the **Report setup page** is considered.

- **Parameter Name:** Should be same as the name configured in Jasper Report. When the parameter name does not match with the report parameter name, the node skips that parameter altogether.



**Note:** The name seen on the **Report Setup Page** is a label and is not same as the field in the Jasper Report.

- **Parameter Value:** Define the value for the parameter set and it is a SmartName field.

In case there are wtc(table content) document references in the attribute category where you are creating a report, and if the report template is PDF then the Table Content Preview is merged into the report or else the Preview PDF report will be generated separately.

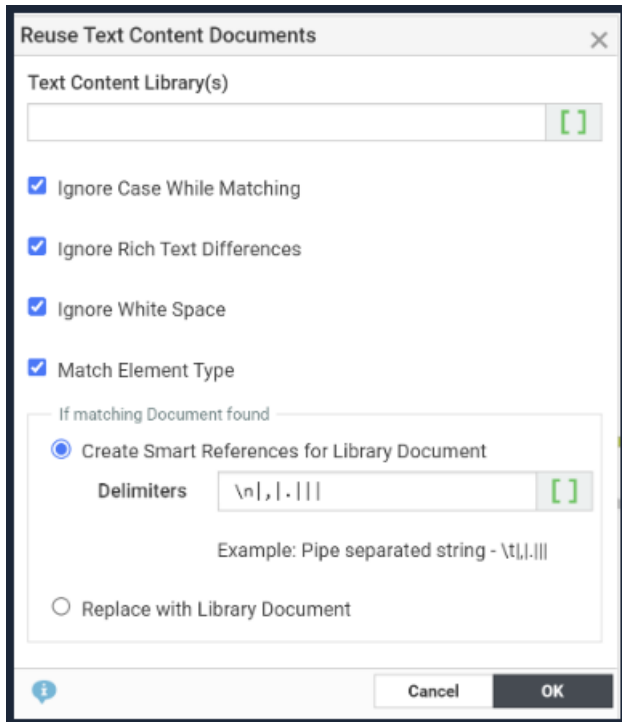
Now choose the **Report Template**, **Report Name**, **Project** and the specific **folder** in which the report is directed.



**Note:** You can read more about the set up of report parameters [here](#).

### Reuse Text Content Node

This node helps you to reuse the text content documents that are referenced in the incoming artwork document. This is done by matching and replacing them with the library documents or the text content document is updated with SmartText that refers to library documents.



**Text Content Library(s):** Specify project names or smart name that resolves into projects.

Every text content document referenced in the artwork are searched in the mentioned Text Content Library Project and if matching document is found, then based on the node configuration

If the input Text document is inheriting content from another language, then the inherit content settings is respected while updating the text with Smart Content.

**Ignore Case While Matching:** When enabled, content matching ignores cases. By default, this option is selected.

**Ignore Rich Text Differences:** Select this checkbox to ignore the richtext formatting differences. When unselected, the text content will be reused only if the rich text formatting visually matches. By default, this field is checked.

**Ignore White Space:** Select this option to ignore the leading and trailing spaces. By default, this field is selected.

**Match Element Type:** When enabled, it matches element type of text statement. By default it is checked.

**Create Smart References for Library Document :** Text content document is updated with Smart References to reuse the library document and all language content is also updated with smart reference(s) and are also resolved automatically.

**Delimiters:** You can specify the delimiters that allows the workflow to split the available text and search in the configured library. This field is a free text field, but the input is expected in certain format to avoid any wrong match/splitting of string.

For Example : \n|,|.|||

**Replace with Library Document:** Referenced text content document in the incoming artwork is replaced with the matching document from the Text Content Library specified.

### Remove Member

This workflow node allows you to remove User(s) / Group(s) / Role(s) from a project, who have no approvals or task assigned to them. You can also remove the user(s) or group(s) assigned to a specific role.

#### Members tab

In this tab, you can choose multiple member rows for removing at the same time.

✕
Remove Members from Project

Members
Iterate

Remove	Name		Role	
User ▼	MOAM ▼	[ ]		[ ]
Group ▼	ARTWORK_DESIGNER ▼	[ ]	BLSA_TEST ▼	[ ]
Role ▼	APPROVAL_MASTER ▼	[ ]		[ ]
Role M... ▼		[ ]	GDE_SUPPLIER ▼	[ ]
User ▼	JAMI_ADMIN ▼	[ ]	ADMIN_FM_1 ▼	[ ]

+

i
Cancel
OK

You can specify to **Remove** from the project , either

- an User
- or a Group where an user is specified
- a Role completely
- member(s) of the Role

Name and the Role fields in this tab are SmartName enabled, and resolves values in the workflow.

#### Iterate tab

You can choose a Project/Document attribute or task specification via a smart name and **Iterate Over Attribute**.

When iteration is on, each of the member rows are evaluated for each value of the attribute and then the members are removed accordingly.



**Note:** When the attribute value is empty or cannot be resolved in the workflow, the node fails to remove the member(s).

You also have an option to choose **Do not iterate**, which is the default option.

### Replace Member

Many a times members are added to the project for a specific purpose like approval and later are removed, while new members may have to be added for other purposes. To automate the adding and deleting of members at certain juncture in the project, you can use the **Replace Members** workflow node.

Current members of the role within a project can be dynamically replaced with new members using **Replace Members** Workflow node. You can specify the member or groups or member of a group to replace a member or a group or a member of a group already existing within the project. The node has to be specified with the following details in the **Members** tab and **Iterator** tab.

**Members tab:** You can add as many rows that may be need, to replace the existing members in the current project. You can delete the row if required. A member row requires the following fields :

Replace Members in Project

Members Iterate

Role	Current Member	Replace by	Group Assignee
[No Role] [ ]	User [ ] MIKAEUS [ ]	User [ ] AAA [ ]	[ ] [ ]
[No Role] [ ]	Group [ ] VENDOR [ ]	Group [ ] GSK DRAWING VIEWER [ ]	CADX [ ]
[No Role] [ ]	Group [ ] TRADE SAMPLE MGRS [ ]	User [ ] SOBK [ ]	[ ] [ ]
[Any Role] [ ]	User [ ] KYBA [ ]	User [ ] ROBA [ ]	[ ] [ ]
[Any Role] [ ]	Group [ ] PURCHASER GROUP [ ]	Group [ ] TRANSLATION AGENCY [ ]	USER_DUTCH - BELGI [ ]
[Any Role] [ ]	Group [ ] GROUP C [ ]	User [ ] GAZA [ ]	[ ] [ ]

- **Role:** You can specify the role which has to be replaced from the drop down of available roles in the project or with smart name(s). You have an option to choose a member as a part of **Any Role** to be replaced or a direct member (**No Role**) in the project to be replaced.
- **Current Member:** You can specify the current member type (user/group) in the two optional fields where a drop down is used and a smartname dropdown is used to specify the current member who is to be replaced from the project.
- **Replace by :** You can choose a new member type as either a user or a group from the drop down and you can also further use a smartname to specify the new member or choose from the drop down.

**Group Assignee:** You can optionally specify a member of the group as a smart name or choose from the dropdown. The user selected in this field will become group assignee. The user should be part of the selected group.



**Note:** This option is enabled only when groups are chosen to replace.

**Iterator tab:** You can specify whether there are Iterations or No iteration. When the iteration is on, the member rows are evaluated for each **Iterator Value**. You can

- **Iterate Over an Attribute** You can choose a Project or Document Attribute or Task Specification with a smart name.
- **Do not iterate (default option)**

**Note:**

1. If the current member configured in the row is not a member in the role/Project, then the replacement of member is not performed.
2. The Tasks and Approvals assigned to the current member is reassigned to the first member replaced.

### Restore from Esko Cloud

Sometimes you might want to retrieve an archived document from Esko Cloud back to Web Center filestore. It is possible to restore the Document using the **Restore from Esko cloud**. This means that the Document will be downloaded from the Esko Cloud and saved in the WebCenter Filestore.

In this work flow node, you need to specify a working Esko Cloud Archiving Asset Management connection and the node should receive document(s) that are archived in Esko cloud.



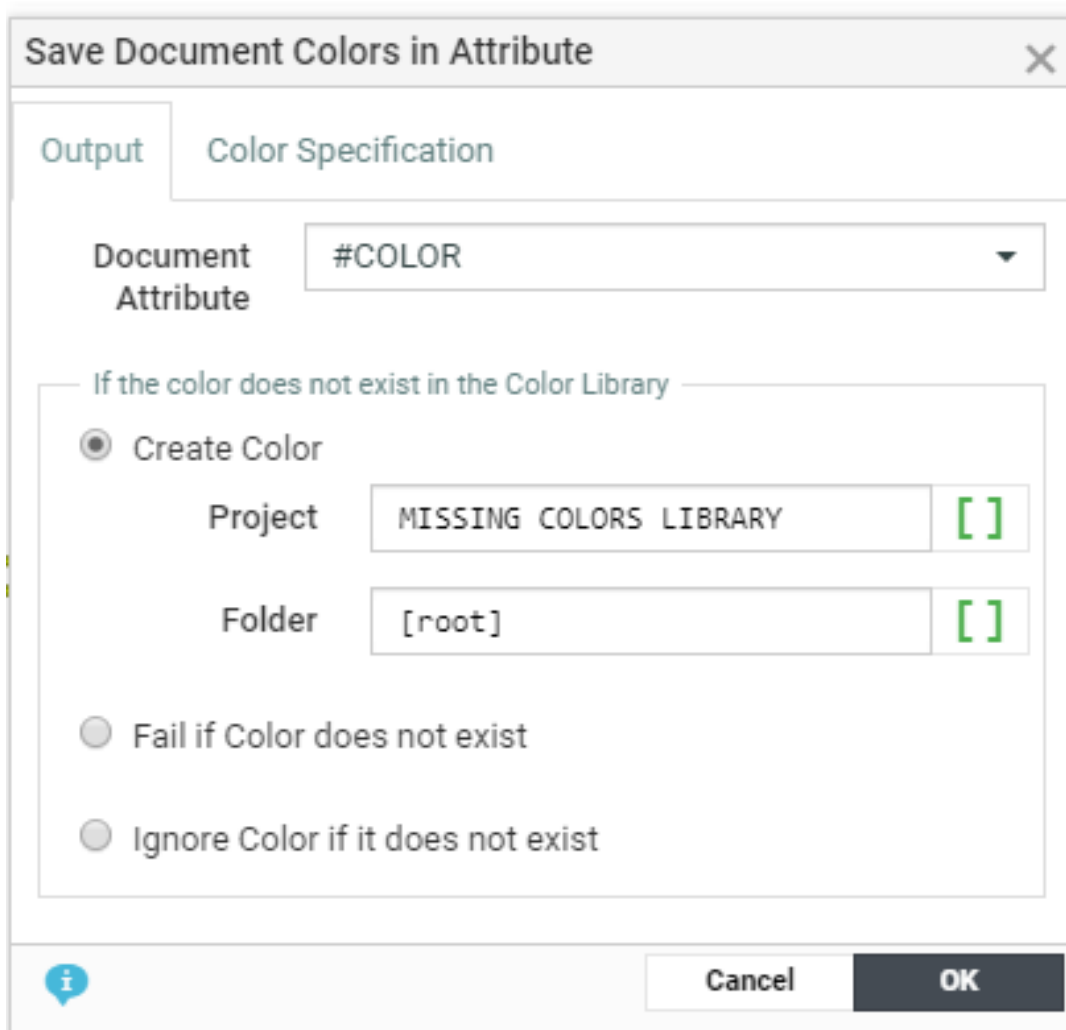
**Note:** Ensure to choose the right **Asset Management connection** for Cloud Archiving, in which the document is archived.

There is an additional option to retain the archived file in the Esko cloud or not. When the **Remove Document from Esko Cloud after Restore** option is chosen (by default), the Document is removed from the Esko Cloud and it is no longer archived ( as per the document status).

### Save Document Colors in Attribute

Color Trace solution supports Color Ink Books/ Pantone Standards from the ESKO Cloud.

**Save Document Colors in Attribute** work flow node extracts the color information from the incoming artwork document ( ROMD properties) and saves it as attribute values in the corresponding document in WebCenter's **#COLOR Library** Project.



To extract the information from the incoming artwork, you need to define the following

- **Document Attribute** in which the values are stored
- On matching the incoming file with the existing document in WebCenter, the work flow node progresses step by step in an orderly fashion.
  - Firstly, checks if a color with the matching name exists in the specification. The attribute value for **#COLOR Name** is found, when they are matched. If no match is found, then it is checked in the preferred books.
  - If the preferred book is not mentioned or not matched in the preferred book, the **#COLOR LIBRARY** is searched for the color name.
  - While searching in the **#COLOR LIBRARY**, a search is made to match the attribute "**#COLOR NAME**" and "**#COLOR BOOK**". If not found, then only **#COLOR Name** is searched for and it is updated only if only one matching color is found. If more than one color is matched, the node is failed.
- When the option **Create if not exists** is selected, then a new color document is created in the **Project > Folder** where the following attributes are specified as the cloud color.
  - **#COLOR NAME:** Name of the color



- **#COLOR BOOK:** Name of the book where the color is present
- **#COLOR RGB:** RGB value of the color
- **#COLOR ORIGIN:** Missing Color

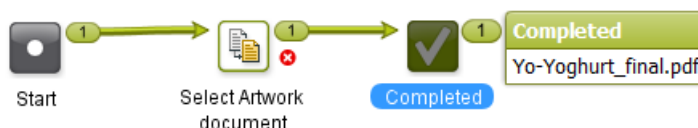
If the **#COLOR NAME** exists in the project, then then same is linked to the document. Also note, that the newly created color has a thumbnail indication that it is not a cloud color.

### Select Children (Document Reference)

Using this node, you can select the documents that are referenced in the input document as a document reference attribute value. Read more in: [Document References](#) on page 373.

This node collects the documents referenced in each of the input documents and sends them as the output documents. Based on the settings, this task may output the incoming parent documents as well.

In the following example, the node selects the `artwork` document referenced in a design file.



Double-click the node in the canvas to fill in the following options:

Parameters

Attribute: Variants

Project: [ ]

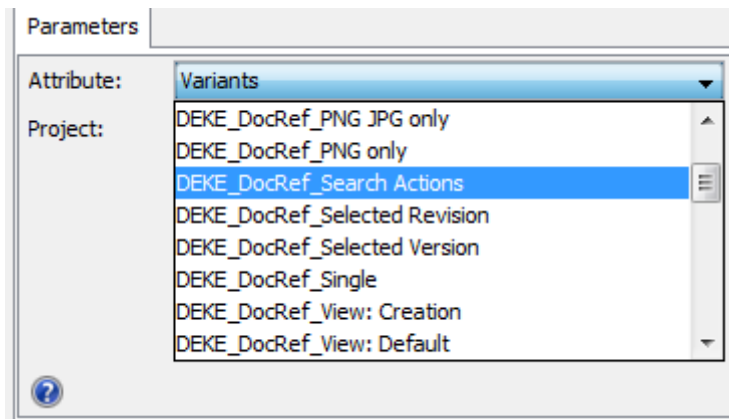
Fail if no Documents found.

Add Input Documents to Output

- **Attribute:** drop down listing all the **document reference attributes** defined in the system.



**Note:** When you select the option **Any Document Reference** from the drop down, all document reference children of the incoming documents are selected and added to the set of output documents.



- Project name:** use SmartNames or type in the name of the project where the referred document is located. This is handy when you want to filter the multi-valued document references located in several projects.

This field is optional and by default empty.
- Fail if no Documents found:** check this when you want the workflow to stop if there are no document references for the attribute you selected.

This option is turned on by default.
- Add Input Documents to Output:** check this to send the incoming documents (the documents containing the document references) also to the output pin in addition to the selected document references.

This option is turned off by default.

**Select Document**

Use the **Select Document** node to choose a document to be processed by the rest of the workflow. When a workflow is started with a human task requiring documents, the **Select Document** node can be used to provide documents.

**Parameters**

**Project Name:** The name of the Project containing the document to select (by default, this is the project in which the workflow is launched).

You can select either:

- Documents in the project:** then define the following:

  - Name:** The name of the document to select.
  - Folder:** The project folder containing the document to select. By default, this is the root folder.



**Tip:** You can use SmartNames for the **Project Name**, **Folder** and **Name** parameters.

- From Project Document Reference**

In 18.0.1 WebCenter release onwards, the documents that are referenced by the selected **Project Document Reference** in the specified project are put on the output pin. You can scroll the drop down list to select the document references.
- From Task Document Reference**

The documents that are referenced by the selected **Task Document Reference** in the currently executed workflow task are selected. You can either select the Task Document Reference from the drop down or select **Any Document Reference**. When **Any Document Reference** option is selected, all documents that are referenced in the task's specification are selected in the node.

- **Documents in the Bill of Materials.** When this option is selected, all the document(s)(versions) that are in the Bill of Materials of the project specified in the Project Name field, are selected and put on the green output pin as one token.

There is also an option to **Fail if no document found**. This option stops the workflow with a failed state, if there are no documents in the defined Project location/Bill of Materials.

**Select Parent (Document Reference)**

Using this node, you can select the parent documents where the input documents are being referenced as the attribute value. Read more in: [Document References](#) on page 373.

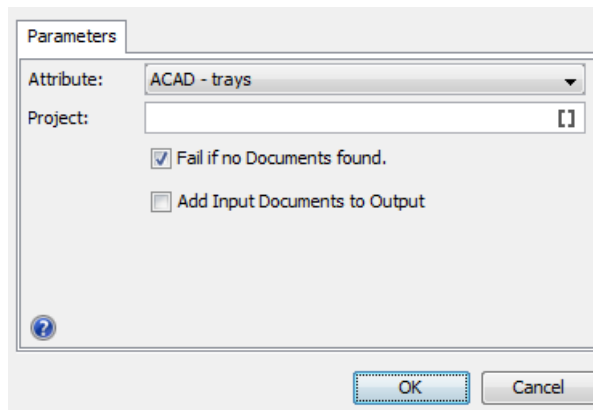
This node collects the master documents of the input documents (document reference values) and sends them as the output documents.

In the example below, the document `Christmas Bottle.zae` has an ARD file as a document reference value for the attribute `Die Line`.

To select the parent when your input document is the `CAD008.ard`, specify the attribute (`Die Line`) in the node. The node will select `Christmas Bottle.zae`.



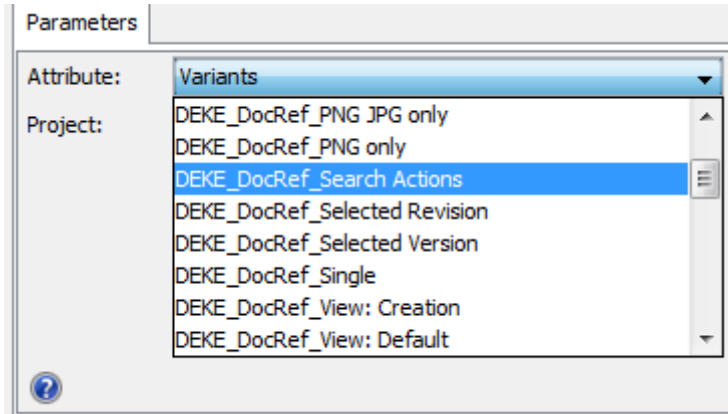
Double-click the node in the canvas to fill in the following options:



- **Attribute:** drop down listing all the **document reference attributes** defined in the system. Select the attribute name where the input document is the referenced document.



**Note:** When you select the option **Any Document Reference** from the drop down, all parent document referencing the incoming documents are selected and added to the unique set of output documents.



- **Project name:** use SmartNames or type in the name of the project where the parent or master document is located. When the project name is specified, only the parent documents that are in this project are selected.  
This field is optional and by default empty.
- **Fail if no Documents found:** check this when you want the workflow to stop if the parent documents are not found.  
This option is turned on by default.
- **Add Input Documents to Output:** check this to send the incoming document references also to the output pin.  
This option is turned off by default.

### Send Notification

You can send automatic workflow notifications using the **Send Notifications** node. These notifications are sent as an e-mail with a configurable subject and body. You can customize this according to your needs.

#### Parameters

In the **To** field, type the e-mail addresses of the receivers or select them using SmartName . The following SmartNames are supported:

- Project Manager
- Sales Person
- Workflow Master (the project member who is assigned the whole workflow as a task in the project)
- Groups
- Users
- Roles (the e-mail will be sent to the current holders of this role in the project)





**Tip:** Use ; as a separator between the receivers.

In the **Subject** field, type the subject of the e-mail. The subject can be configured using SmartNames.

In the **Message** field, type the body of the e-mail. You can use the buttons and options at the top of the field to format your message. The e-mail body will automatically contain a link to the first document coming into the node even if the node gets multiple documents.



**Tip:**

- Click the  icon to use SmartNames (for example to add Attributes, a link to a Document, the Project name or a User name).
- In the Links section, You can find a SmartName to generate a Temporary Document Preview or a Temporary Document Download link in the e-mail. The preview link SmartName is only available if the admin has enabled **Allow large Document preview (approval e-mail notifications)** and for download link **Allow Project Members with Download permission to e-mail a link for non-authenticated download of a Document**.
- Select some text and click  to create a hyperlink.

**Set Document Attribute**

Use this node to automatically add document attributes and their values to the documents processed by the node.



**Attention:** Your documents should have the attribute category (containing the attributes you add) already assigned, otherwise the workflow will fail.

**Parameters**

Click **+** to add one of the attributes of the document's attribute category. If this is not the attribute you wanted, click it and select another attribute.

Then double click in the **Value** column to enter the corresponding attribute value. You can use SmartNames.

To remove an attribute, select it and click **-**.

**Set Project Attribute**

Use this node to automatically add project attributes and their values to the current project.



**Attention:** Your project should have the attribute category (containing the attributes you add) already assigned, otherwise the workflow will fail.

**Parameters**

Click **+** to add one of the attributes of the project's attribute category. If this is not the attribute you wanted, click it and select another attribute.

Then double click in the **Value** column to enter the corresponding attribute value. You can use SmartNames.

To remove an attribute, select it and click **-**.

### Set Project Status

Use this node to automatically set the status of the current project.

#### Parameters

Choose the project status in the **Status** list (it contains all project statuses configured in your WebCenter system). You can also use SmartNames to configure a status parameter.

### Set Workflow Specification

Use this node to automatically set the value of one or more specifications of the workflow you are running.



**Attention:** The specifications you want to use should already be added to the workflow task, before starting the workflow.

#### Parameters

Click **+** to add one of the workflow specifications to the list. If this is not the specification you wanted, click it and select another of the workflow's specifications.

Then double click in the **Value** column to enter the corresponding specification value. You can use SmartNames.

To remove a specification, select it and click **-**.

### Set Workflow Status

Use this node to automatically set the status of your workflow (this must be an active status).

#### Parameters

Choose the workflow status in the **Status** list (it contains all active workflow statuses configured in your WebCenter system). You can also configure SmartNames to set the status parameter.

### Start Approval Cycle

Use this node to start an approval cycle on any incoming document, and wait until the approval cycle is finished.

#### Parameters

Choose to either:

- **Use the default approval setup:** This is the default approval setup of the incoming document. If no approval setup exists for it, the default approval setup of the folder containing the document, or failing that, of the project containing the document, is used.
- **Use the approval setup of another document.** In this case, enter the **Project Name** of the project containing that document, and the **Document Name**.

You can use SmartName for both the **Project Name** and **Document Name**.



**Note:**

- If there is no active approval setup in your project or you chose to use a document that has no approval setup, this node will fail.
- If the approval was already started, it won't change. The node will wait until the document got approved or rejected.
- If the document was already approved or rejected this node will fail.

**Start Approval Stage**

Use this node to start an approval stage in a workflow and build a staged approval. You can set up an approval stage in the workflow similar to a stage in the Approval Setup page in **Projects**.

You may have multiple stages of approval required within the same approval cycle. In such cases, you can set up stages within the approval cycle to approve a document from different stakeholders.

**Parameters**

**Stage Setup**

The stage starts when the incoming document is received for the stage. The document is sent to the appropriate output pin based on the outcomes defined for the stage.



**Note:** If a document version is deleted while the node is waiting, the document is sent to the error pin with the message **Document version is deleted**.

Approval stage has to be defined with the required information like:

- **Stage Name**  
Provide a name to the approval stage. This is a mandatory field.
- **Approver**  
Roles for a particular approval stage have to be assigned before the stage begins or else the workflow will fail. Smart names can also be selected for this field. This field supports all possible user options like User, All of Role, All of Role – One of Group, One of Role, One of Group, All of Group and you can also have multiple SmartName fields and also multi- values for this field.
- **Allow Conditional Approval** Tick the check box if conditional approval has to be allowed. Read more about it [here](#)
- **Allow Forward Approval Link** Tick the check box to allow forwarding the document for approval. Read more about it [here](#).
- **Inherit Previously Submitted Approvals** Tick this check box to inherit the approvals. To know more, read about it [here](#)
- **Keep Forwarded Approvals** Tick the check box to retain the forwarded approvals when a new version is uploaded. Read more about it [here](#).
- **When one User Rejects** Specify how document rejection should be handled. To know more on this option read [here](#)
- **Require review state on all annotations** Specify how the review on annotations has to be handled by approvers. To know more, read [here](#)

**Due Date**

Specify the due date for the approval stage. To know how to set up, read [here](#)

### Approval Settings

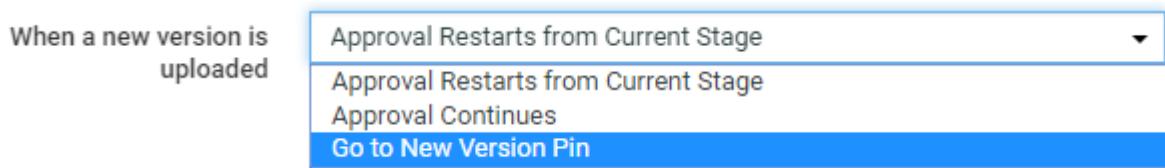
Specify the setting for approval in this tab

- **When a new version is uploaded** You can read how to set up [here](#)
- **Approval Master** You can read on how to set up [here](#)
- **Email Notifications** You can read on how to set up Email Notifications [here](#)

#### When a New Version is uploaded

When a document's approval cycle is started, and a new version of the document is uploaded, then the approval cycle is automatically stopped. You can define what happens when the approval cycle restarts.

In the **When a new version is uploaded** setting, choose either:



- **Approval Restarts from Current Stage** to keep the approval stages already completed (typically approved) and restart the current stage. People who already approved / rejected the document in the current stage will have to evaluate it again.
- **Approval Continues** to keep all the approval actions already done. Only people who have rejected the document will see it again (to check whether the reason for their rejection was corrected).
- **Go to New Version Pin** redirects the uploaded new version of the document to the **New Version Uploaded** output pin if the approval has already started. When no rule is specified, then the approval of the document is in Waiting for workflow status.

The approval rule will be initialized, when the workflow starts an approval stage. Depending on the stage that is started next, the inheritance of Stages/ Approvals is determined as follows:

- **A new stage that was never executed before:** All stages are inherited, except for the stage that triggered the **Go to New Version Pin**.
- **A previous stage:** All stages are inherited up to the one that needs to be started.
- **Same Stage:** All previous stages are inherited.



**Note:**

- It is not possible for a document to go through two **New Version Uploaded** output pins in a row. This is to prevent endless loops in the workflow. **Go to New Version Pin** setting in the second stage will be overruled. In such a case, the stage is restarted.
- The new version can also be uploaded, when the approval is in a **waiting for workflow** state where approval is required, but the workflow is pending completion of a manual task.
- When the document was already in a **waiting for workflow** status and a new version is uploaded, the new version of the document will also be in **waiting for workflow** status and when entering an approval stage node, the **new version uploaded** setting gets executed in this node.



### Finish Approval Cycle

Use this node to finish the approval cycle of the incoming documents and send e-mail notifications. Since there could be many stages in an Approval cycle, a workflow step is designed to determine the completion of the approval cycle. The output pin of this node denotes the final approval status of the document.

#### E-mail notifications:

- **No Notifications:** No e-mail notifications will be sent when the Approval Cycle is completed.
- **Default Notifications:**  
E-mail notifications are sent according to the notifications setup defined in the Document Approval Setup, Folder Approval Setup, Project Notification Setup and System Notifications setup, each time falling back to the next level if that level is set to default.
- **Custom Notifications:** Choice to send an e-mail notifications to the **Project Manager, Involved People** and/or **Project Members** when the approval cycle is completed.

Documents with similar approval statuses are directed to the same output pin.

For example, two documents arriving in one token with final approval status as **Approved** would be shown in the Approved output pin. The error output pin is split per document to view the error for each document.

The final approval status of the document shown in the output pin is

- **Approved:** If the final status of the incoming document is approved
- **Approved with conditions:** If the final status of the incoming document is approved with condition
- **Rejected:** If the final status of the incoming document is rejected.
- **New Version Uploaded:** When a new version of the document is uploaded after all the approval stages are completed then the document is directed to this pin.
- **Error:** For example, when there is no incoming document.

### Submit Workflow

Use this node to launch a workflow in Automation Engine from WebCenter.

During execution this node will:

- connect to Automation Engine using the specified **Workflow Connection**.
- launch the workflow in the specified Automation Engine **Job / Container**

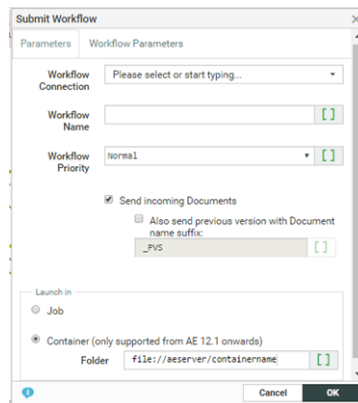
The incoming documents will be processed according to the **Send incoming Documents** option setting. If there are documents to be sent, they will be copied to the specified Job or container and will be added to the start node of the workflow in Automation Engine.

When the workflow is finished in Automation Engine, the WebCenter node will continue over the green output pin. During execution, the workflow feedback shows that it is running on Automation Engine.



**Note:** Your Administrator must have configured a **Workflow Connection** of the type **Project/Workflow (JDF)** for this to work. See [Configure Workflow Connections](#) on page 430 in the Administration Guide.

## Parameters Tab



### Workflow Connection:

Select the JMF type workflow connection (configured by your Administrator) from the drop down. Read in: [Configure Workflow Connections](#) on page 430

### Workflow Name:

Enter the name of the Automation Engine workflow to launch. You can use SmartNames.



**Attention:** The **Workflow Name** is case sensitive.

### Workflow Priority:

This parameter allows you to launch a workflow with a Normal, Low and High Priority. The default option is Normal. The value is represented as sw.priority.low, sw.priority.normal or sw.priority.high if you are using SmartNames.

### Send incoming Documents (by default):

Check this to send the **incoming documents** to Automation Engine (e.g. because of an earlier submit or a sync operation).

Select the check box **Also send previous version with Document name suffix** to send the previous version of the file as well.



**Note:** Specify the mandatory suffix when enabling this option. The previous version is submitted only when a suffix is specified. For example, if the name of the file name is file.pdf and the suffix is \_PVS, the previous version will be submitted as file\_PVS.pdf.

Choose if you want to launch the Automation Engine workflow on the files in:

- an Automation Engine **Job**; in this case, enter the **Orderid** and the **Sub-orderid** of that job.
- an Automation Engine **Container** (only if you use Automation Engine 12.1 or newer); in this case, enter the path to the container in the **Folder** field, in the format `file://aeserver/containername`.

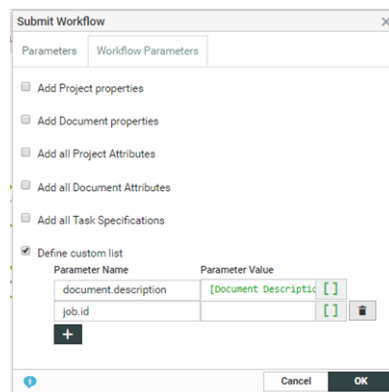
You can use SmartNames in all of these fields.

## Workflow Parameters Tab

To map your WebCenter **Project Attributes** to the Workflow parameters in Automation Engine, specify them in this tab.



**Note:** This is only supported if you use Automation Engine 12.1 or newer. Read also [Add Documents from Automation Engine](#) on page 480



You have the following options that you can enable:

- **Add Project Properties** to add the WebCenter **project properties** as Automation Engine **workflow parameters**.
- **Add Document Properties** to add the project properties as parameters.
- **Add All Project Attributes** to add all the project attributes. They will be available as **project.attributename** in Automation Engine.
- **Add All Document Attributes** to add all the document attributes. They will be available as **document.attributename** in Automation Engine.
- **Add All Task Specifications** to add specifications.
- **Define Custom List** to type in the specific Parameter Name and specify their values manually in the resulting columns below.

- In the left column, specify the workflow parameter name. It will show up as that workflow parameter name in Automation Engine.



**Note:** This list will overwrite the previously added values (For example, **add all project attributes** as "project.attributename").

- You can type in a text value or use SmartNames to specify the workflow parameter in the right column.



**Note:**

The default behavior is to send no parameters unless specified. However, if you had enabled the **Map attributes to Workflow Parameters** in a previous version, all the above options except the **Define Custom List** are sent by default.

**Manually force the node to an output pin**

Any user with **Change Task** rights can force a node to an output pin. To force the node to the output pin, right click on the token of a running workflow node and choose either

1. **Force to Completed pin:** This will put the token on the green completed pin.
2. **Force to Error pin:** This will put the token on the red error pin.

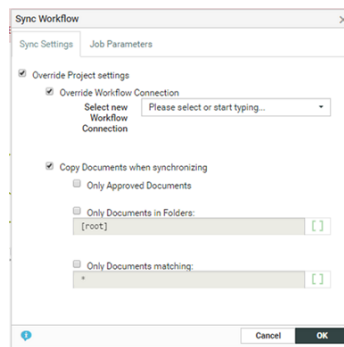
When one of the option is chosen, a confirmation window appears and the action is logged in the project history.

This feature is useful, when the feedback from Automation Engine is not received, and you want to let the WebCenter workflow continue after some manual correcting actions are done.

### Sync Workflow

Use this node to sync the current WebCenter project with the Automation Engine **job** configured in your [Workflow Connection](#). This syncs the WebCenter project data with the Automation Engine job parameters.

This node uses the synchronization settings from the project/template setup by default. However, you can setup alternative synchronization settings in the **Sync Settings** tab.



To change the project settings:

- Enable **Override Project Settings** and configure the following settings:
  - To associate the workflow with a different **workflow connection**, select **Override Workflow Connection** and **Select new Workflow Connection** from the drop-down.



**Note:** This drop-down lists all the connections listed on the **Project > Configure > Workflow Connection** page.

- For overriding the copy document settings, enable **Copy Documents when Synchronizing** and select the specific setting:
  - **Only Documents in Folders:** Select this to specify one or more folders in this editable field. Use ; as the separator. Only the documents in the specified folders will be synchronized.



**Note:**

- If one of the specified folders does not exist in the project, the node will skip the workflow synchronization.
- To specify the root, leave the field empty or as “[root]”.
- You may also specify the folders using wildcards. For example, A\* will match the folders A, ABC, and Amadeus.

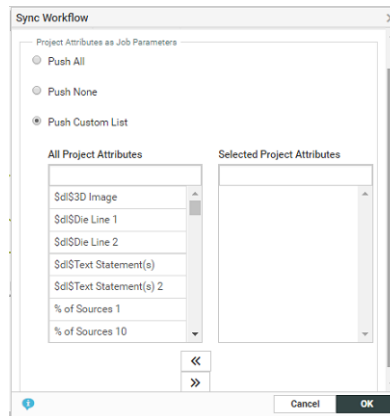
- **Only Approved Documents:** Use this setting to synchronise only the approved documents.
- **Only Documents matching:** Type in the names of the specific documents that you want to synchronise. This field accepts wild cards.



**Note:** If **Copy Documents when Synchronizing** option is not checked, no documents are synchronized.

Specify the WebCenter **Project Attributes** that should be synchronized as Job Parameters in Automation Engine. Configure the settings in the **Job Parameters** tab:

- **Push All (default):** All the **Project Attributes** from the project attribute category are pushed as **Job Parameters**.
- **Push None** for not pushing any **Project Attributes** to Automation Engine
- **Push Custom List:** When you select this, you see two columns and two buttons:
  - Select from **All Project Attributes** to add one or more attributes listed in the column. The **>>Add All (Filtered) Attributes** adds all attributes listed in the column.
  - Select from **Selected Project Attributes** to remove one or more attributes listed in the column. The **<< Remove All (Filtered) Attributes** removes all attributes listed in the column.



**Note:** The **Sync Workflow** node will push only the attributes that are assigned to the WebCenter project in which the workflow is executed. If the attributes specified in this node are not assigned to the **Project**, these will not be pushed.

Executing the node results in the project being synchronized with Automation Engine as per the settings from the node and the Project in which the workflow runs. The workflow will wait until the synchronization is finished and show an error in case this fails.



**Warning:** When you push a custom list of attributes to Automation Engine as job parameters, you may lose some of the existing job parameters. This happens if you are using the old JDF policy on Automation Engine. Read about the JDF policy in: [http://help.esko.com/docs/en-us/suite-general/14/otherdocs/AE\\_Job\\_Parameter\\_Policy.pdf](http://help.esko.com/docs/en-us/suite-general/14/otherdocs/AE_Job_Parameter_Policy.pdf)

### Manually force the node to an output pin

Any user with **Change Task** rights can force a node to an output pin. To force the node to the output pin, right click on the token of a running workflow node and choose either

1. **Force to Completed pin:** This will put the token on the green completed pin.
2. **Force to Error pin:** This will put the token on the red error pin.

When one of the option is chosen, a confirmation window appears and the action is logged in the project history.

This feature is useful, when the feedback from Automation Engine is not received, and you want to let the WebCenter workflow continue after some manual correcting actions are done.

### Sync Chili Variables

You can use this node to sync the attributes with the CHILI document.

When the node is executed for incoming CHILI documents, only those CHILI variables with data type **Text** and **Image** are processed. The Rich Text formatting of the content will be applied to CHILI variables if they have the required style mapping.



Ensure that the referenced text content documents in the incoming chili document contains the attribute **ARTWORK\_VARIABLE** or the CHILI variables in the incoming document is in the format

```
<element type>_I<x>_I<y>
```

where x and y are integers.

Basic Attributes are also synced if CHILI Variable name matches exactly with the Attribute Name. For Images, the variable name of CHILI image file should match with **ARTWORK\_VARIABLE** present in the attribute category.

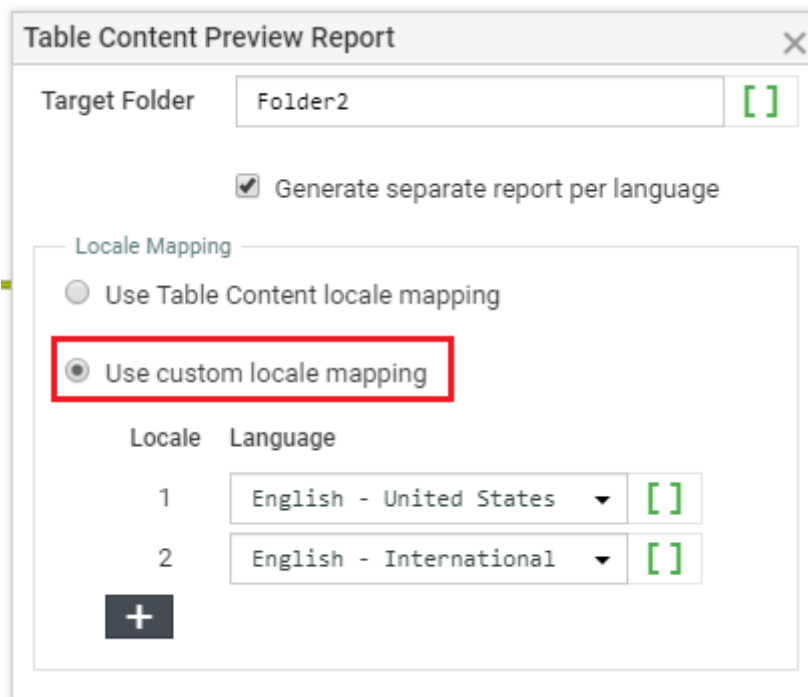
A new document version and a new thumbnail of the CHILI file is created after the workflow is successfully completed.

### Table Content Preview Report

This node allows you to generate a pdf report of the Table content document selected in the workflow.

The report is generated based on the preview of the document which is saved in the selected target folder specified in the node. You can also select the **Generate separate report per language** option to generate language specific reports.

When multiple Table Content Documents are received by this node, then separate reports are generated for each input document.



Report generated is named as **<name of input document>\_report.pdf**. If the report is already present, then new version of the report is created.

And when the report is generated for specified languages, then it is named as **< name of input document>\_report\_<language code>pdf**.

By default, **Use Table Content locale mapping** is selected, and the locale mapping is done as per the incoming table content document for which report is generated. You can choose to change the order of language mapping in the incoming table document by selecting **Use custom locale mapping** and choose the languages for each locale number for which report has to be generated.

**Transform Structured Content**

You can transform the chosen DITAMAP file to a Word, PDF or an HTML file and upload it to a specified folder in the project.

You can specify different output formats for the documents dependent on the Structured Content Plugin folder. The plugin configuration allows different transformation types, for e.g MS word, PDF, HTML5 etc.

This workflow node requires following information to transform the DITA file:

- **Output Format:** Choose an output format from the dropdown list. This is a mandatory field which reflects the folders available in the "sc\_plugin\_dir" location.
- Output Format can now be configured to reduce the size of the resultant MS Word file by limiting the size of the images within the document.

To reduce the file size of MS Word exports, a Template Engineer can add the *image\_resize\_longest\_edge\_pixels* parameter to the output template creating the MS word file. If this parameter is present and has a value greater than 50, then any image which has a longest edge greater than the configured value will be resized. The resized image will have the same aspect ratio as the original image. This resize only impacts the image which is placed in the MS Word document and not the actual image in WebCenter.

The Transform Structured Content Task Type is used to perform the transformation of a ditamap to MS Word.

If for some reason the image cannot be resized, then the full-size image can be used and a warning pin is set on the workflow step for each file which could not be reduced.



**Note:** The output template in which the user would like to limit the size of images needs to have the property *image\_resize\_longest\_edge\_pixels* added to it with a positive integer value greater than 50. It is recommended to use value between 500-800 to maintain ~72dpi on a legal sized document. A Transform Structured Content Task pointing to the configured output template needs to be run.

- **Document Name:** Specify the name of the output document, which is usually the same as input document. If a document already exists in any folder of the project, then it will upload new version of the document.
- **Target Folder:** Specify the target folder name. By default, the upload folder name is the [root] that uploads the output document into the root folder of the current project.



**Note:** This workflow node also supports transforming PCM text statements residing in DITA topics, which are part of this particular DITAMAP.

To add output formats and configure the transformation type, copy one of the pre-defined plugin folders. You can also customize the output styling.



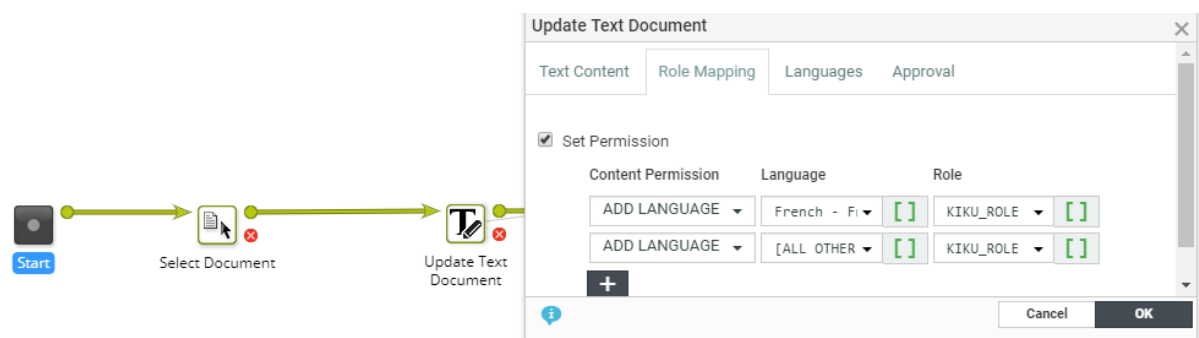
All these different plugin folders should be kept in a location which is specified in the appconfig.xml as in the example below.

```
<sc_plugin_dir value="C:\Esko\Artios\WebCenter\SCPlugins">
  <!--local storage for available Structured Content output plugins-->
</sc_plugin_dir>
```

### Update Text Document

This workflow step allows you to specify or update Text Document properties such as:

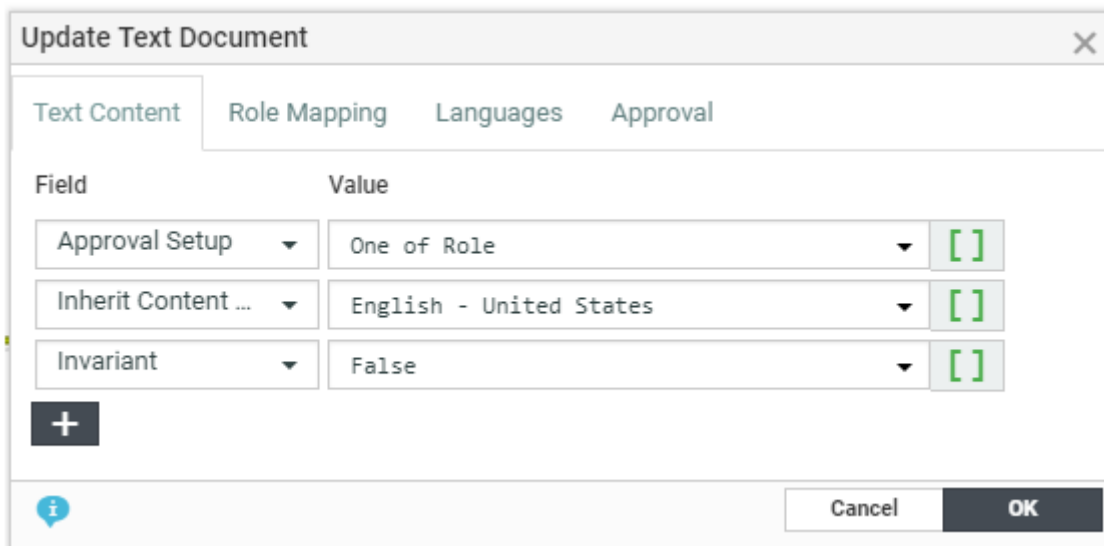
- Text Content
- Role Mapping
- Languages
- Approval



### Text Content

In this tab, specify the properties in the **Text Content Field** and the corresponding values in the SmartName supported **Value** field.

You can specify or update the following properties and their values in this tab:



- **Allow Only Single Smart Text:** Specify this as `True` if the Document should allow only single SmartText.



**Note:** When 'Allow Only Single Smart Text' is set to `True`, the content of the document will be cleared automatically.

- the **Approval Setup:**

- **Default:** Only one member has to approve. For example, if the Approver permission is assigned to two Roles, only one member (from any Role) has to approve.
- **One of role:** One member of each Approver Roles (assignees) has to approve to complete the signing off. In case a Role is assigned to several members (groups or users), any Group member or user from that Role can approve.
- **All of Role – One per Group :** At least one member from each Role-Group has to approve. If there is an individual User, then he or she has to approve as well.

- **Auto Suggestion:** If specified as `True`, the Document will suggest matching text when the user starts typing.



**Note:** This will work only when Saved Search is enabled.

- the **Element Type** of the Text Document. You can select from the list of text content element types supported in the system.



**Note:** The **Element Type** drop down is configured as a [List](#). Read more in: [Text Content Element Types](#) on page 509

- **Inherit Content From :**

You can choose to inherit content one of the options below:

- **Default:** Will inherit the content from the language that is configured to follow in the Language List.
- **None:** Will not inherit content from any language in the workflow node. However the user can manually change the language at the element level in the document.
- **Master Languages:** Can choose any of the languages from the master language list.

By default **Disable** is chosen which will not allow to inherit content.

- **Inherit Only SmartText:** Specify this as `True` if the inheriting content should allow only SmartText.



**Note:** This is only applicable when 'Allow Inherit Content' is enabled.

- **Invariant:** Specify this as `True` if translations are not required for a particular Text Document.



**Note:** If the Invariant is set as `True`, then all translation languages will be removed from the incoming document.

- **SmartText Search:** A list is displayed containing all global Text Document searches available on the server.
- **Type** of Text: Simple or Rich Text. If the Type changes from the existing type, the document status will become **Draft**.
- **Change Master Language:** This feature allows user to change master language. To change master language perform the following task:
  1. Select **Change Master Language**.
  2. Choose the language you wish to make as master language.

- Under **Keep/Revert Approval state**, choose between **Always revert Approval state to Draft if Master language is changed** and **Keep Approval state if new Master language is already Signed-off**.

### Role Mapping

This tab allows you to map Content Permissions to Roles. To specify the new set of permissions or to specify permissions in a workflow:

- Enable **Set Permission**. This will show the Permission Settings.
- Select the **Content Permission** (Add Language, Editor, Approver or Content Manager).
- Set the corresponding **Language** from a list of all the text content languages supported in the system.

Select [All Other Languages] to specify permissions and role mapping to all languages without permission assignment in one go.



**Note:** The Content Manager has permissions to all languages by default and cannot be specified per language.

- Specify the **Roles** corresponding to the selected Content Permissions. The drop-down lists all Roles configured in the system.

### Languages

This tab lets you:

- add and remove languages to the document or Inherit content from the language configured in document
- update or create actual text content

To do an **Action**:

- Select **Language** - You can either select from the drop-down (listing all the languages present in the system) or use a SmartName in this field.



**Note:** If your SmartName points to a multi-value attribute, it will resolve to multiple values.

- Specify the **Action**: Choose from **Add/Remove/Update/Inherit**.
- You can add a condition where the workflow node can inherit/add/update/remove elements. There may be a combinations of different conditions that may be given.

Condition	Action Possible
Always	Add, Remove, Update, Inherit
New Value is not empty	Add, Update, Inherit
Current value is empty/not available	Add, Update, Inherit
Current value is empty	Remove, Inherit
Current value is not available	Inherit
Current value is empty and new value is not empty	Add, Update

- Define the corresponding **Value**. This is the field where you can type in the actual text content.



**Warning:** If a language is specified in more than one row, only the settings specified in the last row will be valid.

### Approval Tab

This tab allows you to set **Approval Status** (per language) via workflow.



**Note:** You can use SmartNames in this step and if your SmartName points to a multi-value attribute, it will resolve to multiple values.

1. Select **Language** - You can either select from the drop-down (listing all the languages present in the system) or use a SmartName in this field.
2. Specify the **Status**. You can choose from **Draft**, **Pending SignOff**, **SignOff Rejected** and **Signed Off**.

### Update Table Content

This workflow node allows you to specify or update Table properties and Table values. You can add:

- Role Mapping
- Languages
- Approval
- Add / Remove / update/ inherit elements and set values for nutritional facts elements

### Settings

In this tab, specify the properties in the **Field** and the corresponding values in the SmartName supported **Value** field.

You can specify or update the following properties and their values in this tab:

- **Approval Setup:**
  - **Default:** Only one member has to approve. For example, if the Approver permission is assigned to two Roles, only one member (from any Role) has to approve.
  - **One of role:** One member of each Approver Roles (assignees) has to approve to complete the signing off. In case a Role is assigned to several members (groups or users), any Group member or user from that Role can approve.
  - **All of Role – One per Group :** At least one member from each Role-Group has to approve. If there is an individual User, then he or she has to approve as well.
- **Auto Suggestion:** If specified as `True`, the Document will suggest matching text when the user starts typing.



**Note:** This will work only when Saved Search is enabled.

- **Inherit Content From :**

You can choose to inherit content one of the options below

- **Default:** Will inherit the content from the language that is configured to follow in the Language List.
- **None:** Will not inherit content from any language in the workflow node. However the user can manually change the language at the element level in the document.
- **Master Languages:** Can choose any of the languages from the master language list.

By default **Disable** is chosen which will not allow Inherit content.

- **Inherit Only SmartText:** Specify this as `True` if the inheriting content should allow only SmartText.



**Note:** This is only applicable when 'Allow Inherit Content' is enabled.

- **Invariant** : Specify this as `True` if translations are not required for a particular Document.
- **SmartText Search**: A list is displayed containing all global Text Document searches available on the server.
- **Type**: Simple or Rich Text. If the Type changes from the existing type, the document status will become **Draft**.

**Values**

This tab lets you add / remove /update table statements and their values. Use a single row per **element** or statement.

Update Table Document

Settings Role Mapping Values Approval

Element	Instance Sequence	Language	Action	Condition	Value
Serving Pe	1	English -	Add	Always	[List]
Serving Si	1	French - F	Inherit	Current va	
Calories	1	English -	Update	Always	[List]
Total Fat	1	English -	Update	Always	[List]
Total Fat	1	French - F	Inherit	Always	
Cholesterc	1	English -	Update	Always	[List]
Cholesterc	1	French - F	Inherit	Always	
Sodium Mez	1	English -	Update	Current va	[List]
Sodium PDV	1	English -	Update	Always	[List]
Total Cart	1	English -	Update	Always	[List]
Total Cart	1	French - F	Inherit	Always	
Dietary Fi	1	English -	Update	Always	[List]
Dietary Fi	1	French - F	Inherit	Current va	
Sugars	1	English -	Update	Always	[List]
Sugars PDV	1	English -	Update	Always	[List]
Added Suga	1	English -	Add	Always	[List]
Added Suga	1	French - F	Inherit	Always	
Protein Me	1	English -	Update	Always	[List]
Protein PC	1	French - F	Inherit	Always	

Cancel OK

- **Element** – Contains a list of all the table *Element Types* supported in WebCenter. There is a special field "[All Table Elements]" which will do bulk addition of master table elements into a translation language.
- **Instance Sequence** – Specify the instance sequence number. This number indicates how many occurrences of an Element is present in a Table. The default value is 1.
- **Language** – You can either select from the drop-down (listing all the languages present in the system) or use a SmartName in this field.

If the specified SmartName resolves to multiple languages, then the specified configuration(from that row) will be applied to all of them.

- **Action:** Choose from **Add / Remove /Update/ Inherit** .
- **Condition** You can add a condition where the workflow node can inherit/add/update/remove elements. There may be a combinations of different conditions that may be given.

Condition	Action Possible
Always	Add, Remove, Update, Inherit
New Value is not empty	Add, Update, Inherit
Current value is empty/not available	Add, Update, Inherit
Current value is empty	Remove, Inherit
Current value is not available	Inherit
Current value is empty and new value is not empty	Add, Update

- **Value** – Field where you can specify the actual content. You can enter the data or use SmartNames.



**Tip:** Use List SmartNames(pointing to an Excel sheet based List) to provide content in a smart way.



**Note:** If you specified the action as **Add** for an existing value, the value is updated. If the element does not exist in the document, the element and the value will get added. However, if the action is **Update** and the element does not exist, the row is ignored.



**Note:** If you are updating a SmartName table using this node, the value from this node will replace the SmartName in the table.

### Approval Tab

This tab allows you to set **Approval Status** (per element, per instance and per language) via workflow. This allows you an automated way of approving the nutrition fact statements.



**Note:** You can use SmartNames in this step and if your SmartName points to a multi-value attribute, it will resolve to multiple values.

1. Select the **Element** or the statement.
2. Specify the **Instance Sequence** of the element.
3. Select **Language** – You can either select from the drop-down (listing all the languages present in the system) or use a SmartName in this field.
4. Specify the **Status**. You can choose from **Draft, Pending SignOff, SignOff Rejected** and **Signed Off**.

### Layout Tab

- **Remove empty rows from Grid Layout** is unchecked by default.

### Upload to Asset Management System

The [Asset Management](#) configurations allow you to push a document to the asset management system. The **Upload to Asset Management System** node allows you to specify the Asset Management connection or a cloud connection and their metadata mapping.

### Specify the Parameters

Choose the **Asset Management Connection** from the searchable drop-down. You can choose from either

1. **Esko Cloud connection** which has an Archiving service connections that are already set up in the system by the *admin* user.

Then the Workflow node allows you to configure the following parameters:

- **Only archive old Versions of a Document** when this option is selected, the versions uploaded into the Esko Cloud are limited to all the versions that are no longer being linked to from within a Project in WebCenter.

For example, if there is a Document with 3 versions: version1, version2 and version3 and two Projects

**ProjectA** and **ProjectB** where **ProjectA** contains Document version3 and **ProjectB** contains Document version2.

On executing this workflow node, only the Document version1 (oldest) is uploaded to the cloud.

When this option is not selected, all versions of the Document are uploaded to the Esko Cloud.

- **Remove Document from Filestore after upload to Esko Cloud:** When this option is chosen, (selected by default), the documents are removed from the File store on successful upload to the Esko Cloud.



**Note:** At a time, only one Document version can be uploaded to the Esko Cloud and an uploaded version cannot be overwritten.

### 2. Asset Management Connection



**Note:** If you leave this field blank, the workflow will look from an Asset Management system that acted as the source for the incoming document. This step will fail if it cannot find any Asset Management configuration.

Define the DAM specific parameters

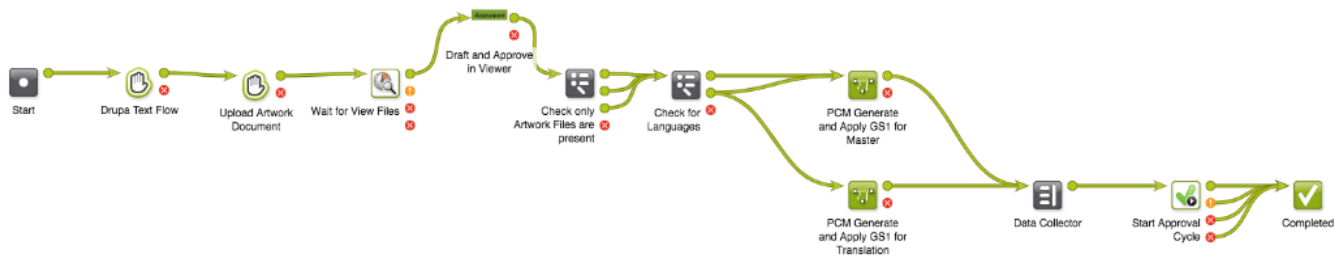
- Asset Path
- Specify if the zip files should be expanded on the MediaBeacon server on upload.
- Specify if it is a **New Asset** or a **New Version** of an existing asset.
- Specify the **MediaBeacon** Namespace and any parameters with its value.

### Wait for View Files

With this node, you can


- have view files available before starting an approval cycle or starting a task
- detect warnings in the view file generation.
- re-generate view files after they are flushed

For example, before starting an Approval Cycle.




During execution, the node waits for the view file generation of the incoming documents and proceeds to one of the output pins according to the view files status:

- If the view files are available or if the document is not viewable, the document is sent to the **Succeeded** output pin
- If the view files are available but if it contains a warning, the document is sent to the **Warning** output pin

 **Note:** The Task Details of the view file generation has the text “Task(s) generated warnings”

- If the view file generation failed, the document is sent to the **Failed** output pin.
- If there are no incoming documents, the node fails and the token is sent to the **Error** pin.

If there are multiple documents in the incoming token, the node will wait until the status of all the document(s) is known, and then proceed to the appropriate pins.

 **Note:** If the view files were deleted, the node will re-start the view file generation first before waiting for its status.

**Manually force the node to an output pin**

Any user with **Change Task** rights can force a node to an output pin. To force the node to the output pin, right click on the token of a running workflow node and choose either

1. **Force to Completed pin:** This will put the token on the green completed pin.
2. **Force to Error pin:** This will put the token on the red error pin.

When one of the option is chosen, a confirmation window appears and the action is logged in the project history.


**Wait**

Use this node to pause the workflow for a certain amount of time (for example to wait for a user action). The next node will start processing after the wait time is over.

**Parameters**

**Release date:**

By default, this is set to the current date (using the SmartName [Current Date]). You can change it using any SmartName that resolves to a date (not only the SmartNames from the **Date** category but also for example an **Attributes** or **Specifications** category SmartName resolving to a date).

 **Note:** When using an attribute or specification SmartName, the attribute category must be set on the project in which you run the workflow, or the specification must be set on the workflow task. See [Project and Document Attributes](#) on page 320 in the Administration Guide for more details about attributes, restricted sets and attributes categories.



In **Days offset**, **Hours offset**, **Minutes offset** and **Seconds offset**, you can add a number of days, hours, minutes and seconds to wait after the **Release date**. For example, if you set the **Release date** to [Current Date] with an **Hours offset** of 2, the node will pause the workflow until two hours after the workflow was started.

You can use SmartNames in all these parameters.

Select **Count only working days** if you are setting the node to wait a number of days and you only want to count business days. For example, if you set it to wait two days and start it on a Thursday, it will start again on the Monday after that. This is selected by default.

### Manually force the node to an output pin

Any user with **Change Task** rights can force a node to an output pin. To force the node to the output pin, right click on the token of a running workflow node and choose either

1. **Force to Completed pin:** This will put the token on the green completed pin.
2. **Force to Error pin:** This will put the token on the red error pin.

When one of the option is chosen, a confirmation window appears and the action is logged in the project history.

## Task Types

A **Task Type** can be either **Manual** or a Task Type with a **Workflow**. Both types can be added to a workflow from the canvas.


The **manual** tasks require human intervention and they can be used as either individual tasks or as workflow nodes.

### Editing a Task Type


You can edit a Task Type in a workflow by double-clicking on a node and specifying details in the **Edit Parameters** dialog. This dialog is task specific and has SmartNames-enabled tabs:

- [Parameters](#)
- [Specifications](#)
- [Due Date](#)
- [Iterate](#)
- [Notifications](#)
- [Output](#)



**Note:** Click the  icon to use SmartNames in this node.

## Parameters Tab

Fields	Description
Name	<p>The name of the task.</p> <p>By default, the name will be derived from the Task Type.</p> <p>When a task is executed multiple times, the task name will automatically get the suffix _1, _2, and so forth.</p>
Description	Type in a fixed description for the task assignee.
Status	<p>The initial status of the node. By default, the drop down will have the following statuses:</p> <ul style="list-style-type: none"> <li>• <b>Created</b></li> <li>• <b>In Progress</b></li> <li>• <b>Completed</b></li> </ul> <div style="border: 1px solid gray; padding: 5px;"> <p> <b>Note:</b> It will list all the <b>statuses</b> configured in the <b>task type</b>. Read in: <a href="#">Add Task Statuses</a> on page 847</p> </div>
Update the task if existing	By default, this is off. The task will create a new a task.

Fields	Description
	Enable this to update the task if it already exists. If this happens, the task will get back from a completed status to an in-progress status.
Assignee	Specify the task assignee: <ul style="list-style-type: none"> <li>• <b>Select Role</b> (Default):</li> <li>• <b>Select Group</b></li> <li>• <b>Select User</b></li> </ul> Read more below:

**Task Type Assignments**

- **Select Role** (default): You can select the assignee from a SmartName enabled drop down with all the roles in the system (visible to the current user):
  - **Project Manager** (default): The project manager of the project containing the workflow.
  - **Project Creator** : The user who created the project.



**Note:** In case the project was created earlier than 18.1 or when the project creator does not have access to the project, and the creation of task fails.

- **Sales Person**: The sales person of the project in which the workflow runs.



**Note:** The **Sales Person** should be invited to the project.

- **Workflow Master**: User/group/role to which the workflow is assigned (task assignee of the workflow task).
- All other configured roles visible to the current user.

Use the **Assign To** field to specify the iteration settings for the task:

- **One of Role** setting for creating and assigning one task for the role.
- **All of Role – One per Group** setting for creating and assigning individual tasks for each group / user in that role. Only one task is created and assigned per **group**.
- **All of Role** setting to create and assign individual tasks for each unique user in the role (including users in groups assigned to the role).
- **Select Group**: You can select the assignee from the drop down listing all the visible groups. Specify the **Assign To** field as:
  - **One of Group** to create one task assigned to the group.
  - **All of Group** to create and assign tasks for each user in the group.
- **Select User** from the drop down of all the users visible to the current user. The user should be invited to the project.



**Note:** The role / group /user should be invited to the project. If you are using a SmartName or free text, the resolved role / group name should be invited in the project.



**Note:** If the Project Manager or the Workflow Master is role / group, it follows the **Assign To** settings.

If your **Assign To** field settings create multiple tasks, the workflow will wait until all of these tasks are finished to progress to the next step.

### Specifications Tab

Use this tab to set the values for the task specifications. These values can be either fixed values or selected using the SmartNames.



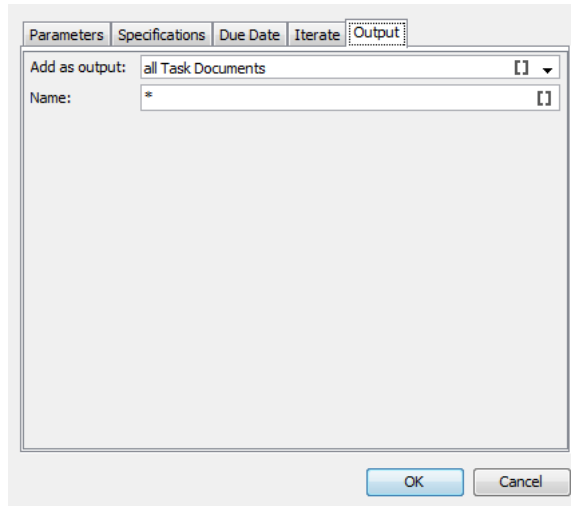
**Note:** If you want to see the **specifications** in the **specifications tab** you should add them in the **task type**.

### Output Tab

Specify the output documents in this tab. The fields on the Output tab are:

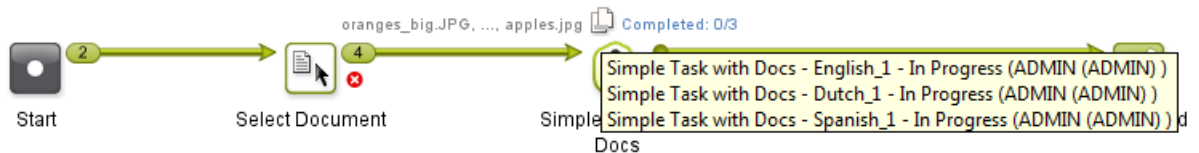
Fields	Description
Add as output	<ul style="list-style-type: none"> <li>All task documents: Output all the documents that are attached.</li> <li>Only new task documents: This excludes all the task documents and the documents that were previously available. This results in the new task documents.</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p><b>Note:</b> If there are new versions, these are also considered as new documents.</p> </div> <ul style="list-style-type: none"> <li>No documents: Set no documents as output of the task.</li> </ul>

Fields	Description
Name	Filter the output document by name or document extension. For example, *_1.pdf files.



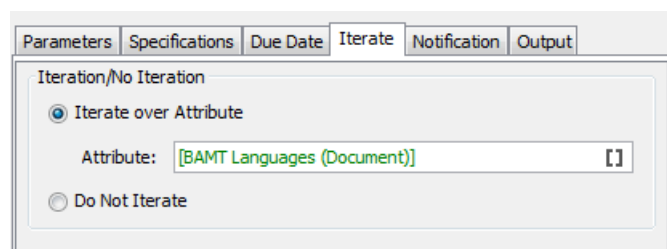
### Iterate Tab

You can iterate task creation from a **Task Type** node. The **Task Type** node will create tasks depending on the **Iterator** value.



The default option is **Do not Iterate**.

To create multiple tasks over a **Project / Document attribute** or a **Task Specification**, select it in the **Iterate over Attribute** field.



You can select this **attribute** via a SmartName or by manually typing in the attribute. Based on the resolved value of this **attribute**, this node will create the tasks. For example,

- If the SmartNames resolves to a multi-value (text) attribute indicating languages, the node will create tasks based on the language variants. You will get the same result when you type in the attribute values.

For example, if you type in `Dutch | Spanish | English`, the iterator value will be "Dutch", "Spanish" and "English". As a result, there will be three new Tasks corresponding to each language attribute value.



For each **iterator value**, the node will create a task with the value of 'iterator value' filled in as the value for the corresponding parameters.

- If the attribute/task specification is **Integer** type or if the SmartName resolves to an integer or if you type an integer (for example, you type 3), the projects will be created based on these numbers.

For example, if the value resolves to 3, the iterator value will be 1, 2 and 3. As a result, this task type will create three new tasks.



**Note:**

- If the attribute is missing in the Project, you will get an error:

```
Attribute not found
```

- If the resolved attribute is empty, your error message will be:

```
Resolved
iterate attribute value is empty
```

If you iterate over a project attribute or task specification, all incoming documents are added to the tasks.

When you iterate over a multi-value document attribute (for example, `Dutch | Spanish | English`):

- if the incoming document has two values for the `Languages` (the **iterator**) attribute, `Dutch` and `English`, this document will be attached to the Dutch and English Tasks.
- if you have documents where this attribute is empty, they will not be added to the iterated tasks.
- if you have documents without this **attribute**, they are attached to all the created tasks. However, these documents will be transferred to the output pin (of the task type node) only once to avoid duplication.



**Note:** The output of this task type node will depend also on the [Output Tab](#) settings.



**Tip:** You can use the **Iterator Value** in combination with other node parameters such as **Role**.

Assignee

Select Role

Role:  [ ] ▼

Assign To:  ▼

Select Group

Select User

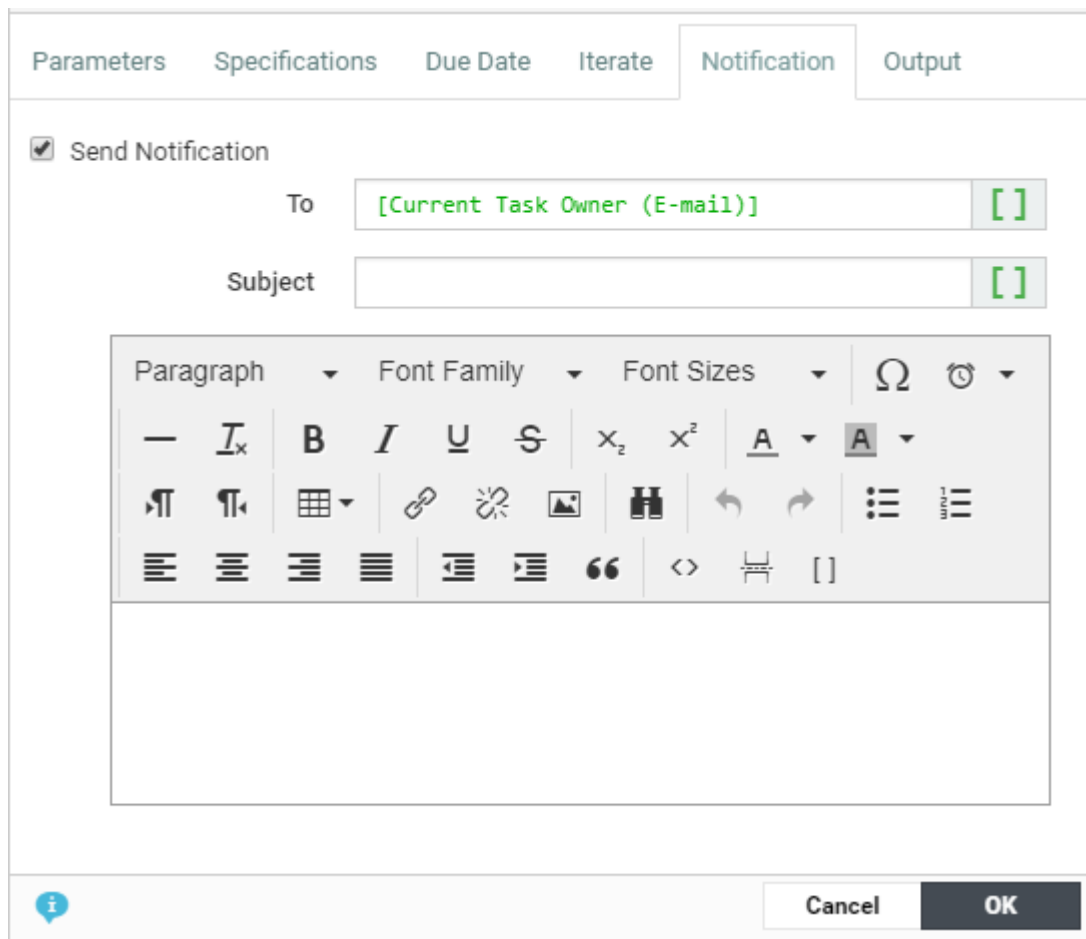
If you select multiple assignees (for example, by selecting **All of Role**) for a task, the node will execute the **Iterate over an attribute** function first. Based on the Iterator value and **Assignee**, it will then create tasks for the multiple task assignees (**all of role** in this example).


This allows using the iterator SmartName in the assignee fields for roles and groups. Read in: [Parameters Tab](#) on page 963.

### Notifications Tab

This tab allows you to create and send **Notifications** without adding a [Send Notification](#) node.

The configuration is almost the same as the [Send Notification](#) on page 942 node. However, there are extra SmartNames available in this tab to refer to the just created/updated task.



In the **To** field, type the e-mail addresses of the receivers or select them using SmartName . The following SmartNames are supported:

- Project Manager
- Sales Person
- Workflow Master (the project member who is assigned the whole workflow as a task in the project)
- Groups
- Users
- Roles (the e-mail will be sent to the current holders of this role in the project)
- Current Task Owner (E-mail). Filled in by default.





 **Note:** This is not available in the **Send Notification** node.

In the **Subject** field, type the subject of the e-mail. The subject can be configured using SmartNames.  
 In the **Message** field, type the body of the e-mail. You can use the buttons and options at the top of the field to format your message.





**Tip:**

- Click the  icon to use SmartNames (for example to add Attributes, a link to a Document, the Project name or a User name).
- Select some text and click  to create a hyperlink.
- Select the icons   to change the text direction from right to left or back when working with languages like Arabic or Hebrew. Use SmartNames **Link to Current Task** from the category **Links** and **Current Task Due Date** from the category **Date**.



**Note:** This is not available in the **Send Notification** node.

**Due Date Tab**

**Due Date Tab**

In this tab you can setup the due date by configuring the following fields according to your needs.

**Fixed Lead Time**

Specify the **Based on date** as the reference. This field is SmartName enabled and you can use values such as [Current Date], [Workflow Duedate], [Workflow start date] and any date-attribute as the reference.

Also specify the **Planning** as either **Forward** or **Backward**.

The **lead** time is added or subtracted to your reference date depending on this setting:

- If your **Planning** is set to **Forward**, the **Lead** days and hours are **added**.
- If your **Planning** is set to **Backward**, the **Lead** days and hours are **subtracted**.

**Percentage Lead Time (Compressing)**

Another way to specify the due date is by specifying the lead time in percentage. A percentage of the difference between the current date and the reference date.

The **Based on date** is the SmartName enabled reference date. Use [Current Date], [Workflow Duedate], [Workflow start date] and any date-attribute as the reference.

If your workflow due date is on 27th Thursday and the current date is the 13th,

- The number of days is calculated as 10 working days.
- If your percentage set as 20, the task will add two working days to the current date to calculate the **task due date**.

August 2015						
						1
2	3	4	5	6	7	8
9	10	11	12	13 Task / Sub-Task Execution date <sup>1</sup>	14	15
16	17 Task or Sub-Task due date <sup>1</sup> based on Percentage Lead Time Compressing	18	19	20 Task / Sub-Task Execution date <sup>2</sup>	21 Task or Sub-Task due date <sup>2</sup> based on Percentage Lead Time Compressing	22
23	24	25	26	27 Project Due Date (Based on Date)	28	29
30	31	<ul style="list-style-type: none"> <li>• The lead time is calculated based on the percentage=20</li> <li>• 10 working days between the start date (13<sup>th</sup>) and the Project Due date. So 2 working days are added to the task execution date.</li> <li>• When the task is started on 20<sup>th</sup>, there are 5 workign days before the due date and task due date is the 21<sup>st</sup>.</li> </ul>				

## Workflow Constructs

Workflow constructs are "tools", nodes that help you build the workflow. They help control the flow of data and/or documents through the workflow.

### Data Splitter and Data Collector

#### Data Splitter

Use the **Data Splitter** if you want the next step in the workflow to process each file individually.

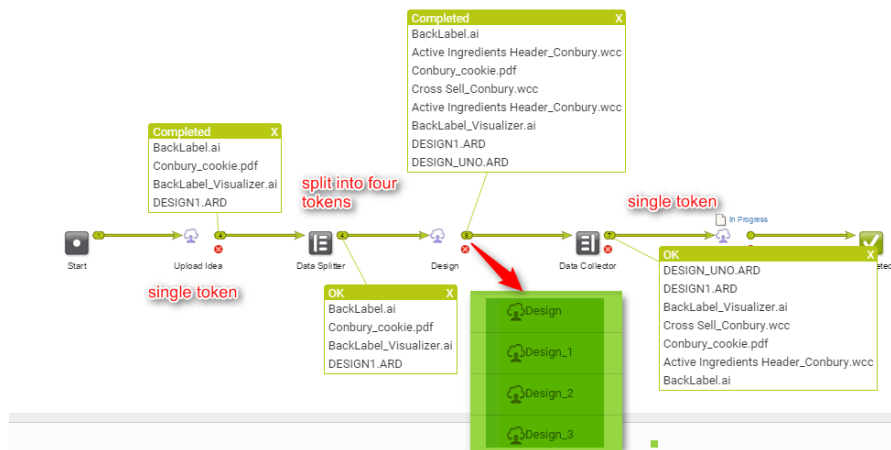
You cannot specify parameters for this node. When a **token** arrives with multiple documents, **Data Splitter** will be split them up as separate tokens with a single document.

#### Data Collector

Use the **Data Collector** workflow control

- to collect all files that travel separately as individual tokens in the workflow and then merge them before sending the group the next step.
- to wait for all files before continuing the workflow.

In the example below, four files arrive at the **Data Splitter** node and are outputted as four tokens with a document each. The **Design** steps (a task per token) collect the design documents and sends it to the **Data Collector**. This step outputs the processed files as a single token to the next step.



You can set the **Error Policy**:

- to **Fail when errors occur**
- or to **Ignore Errors**

#### Error Handler

The Error Handler node is a **workflow construct** with a single output pin. You can attach this to any other node.



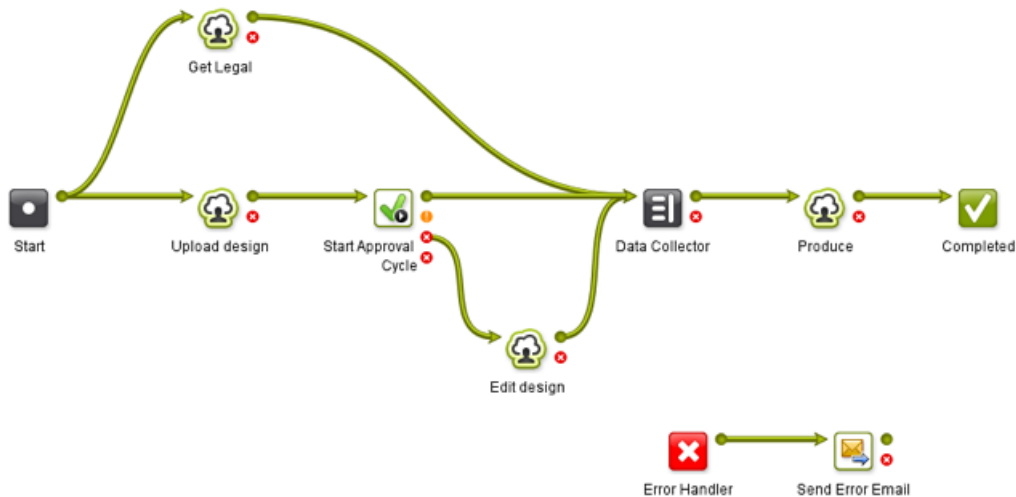
**Note:** This node will not accept input connections.

When a workflow node has a failure, the system will check the error dot of the node. If this dot is NOT connected to anything, and there is an error handler node on the canvas, the system will put the token on the output dot of the error handler.

In the example below, if **Start Approval Cycle** fails because there is no approval setup:

- the **Error Handler** will check if the error pin of the node is connected to any other node. When the error pin is not connected to any workflow path, **Error Handler** will receive the error.
- the **Send Error Mail** node will send an e-mail to the person specified in this node.
- after the notification email, the token will be placed on the original node.

The person receiving the e-mail can then take action and retry the approval node.

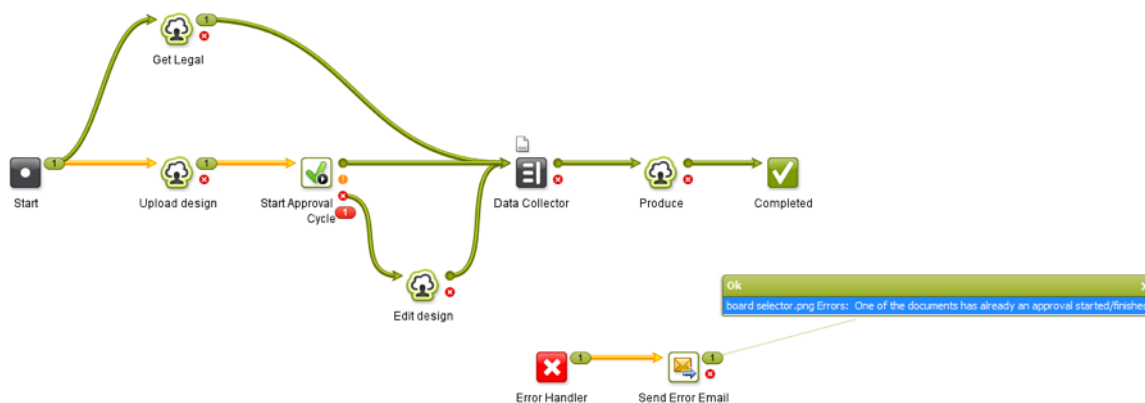


**Note:**

- Do not connect the **Error Handler** node and its following nodes to the main Workflow to avoid unexpected results.
- You only can add one Error Handler node in your canvas.

### Feedback from the Error Handler node

To know the source of the error, click on the output token of the node connected to the **Error Handler**. In the example below, the green output pin of the **Send Error Email** will show the error.



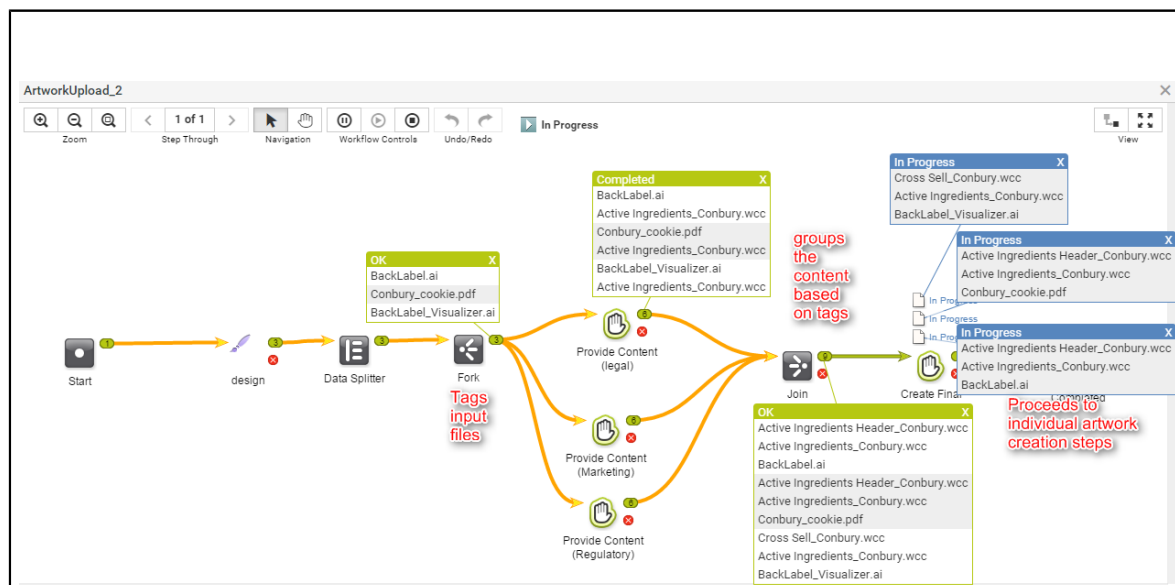
**Fork and Join**

The **Fork** step automatically tags

- every file running through it
- and all the files that those files are related to in the next steps

This creates a tag for the group.

The **Join** step then groups all the files with the same tag and outputs it together.



In the example workflow:

- the designer uploads packaging designs (three files). This task will send a single token of three files to the next steps.
- the **Data Splitter** separates them into three tokens
- the **Fork** node **tags** these three files separately
- each design file gets tasks for collecting its own legal, marketing and regulatory content. This results in 9 tasks to gather content.

- the **Join** node groups individual design files with related content using the **tags**. This step will result in three groups of files and three `create final artwork` steps.

### Mark and Select

The **Mark** and **Select** nodes are used as a pair. You can use **Mark** to tag files in the workflow and use **Select** to select those files later in your workflow.

You can have several pairs of **Mark** and **Select** in your workflow. By default, the tags will be set as **tag-1, tag-2**, etc.

#### Mark

To specify your own **tag**, double-click the node and enter the tag in **Mark all incoming items with tag** field.

#### Select

You can use the drop-down in the **Select all items with tag** field to specify the **tag** for this node. The drop-down list will contain tags specified during the **Mark** step.

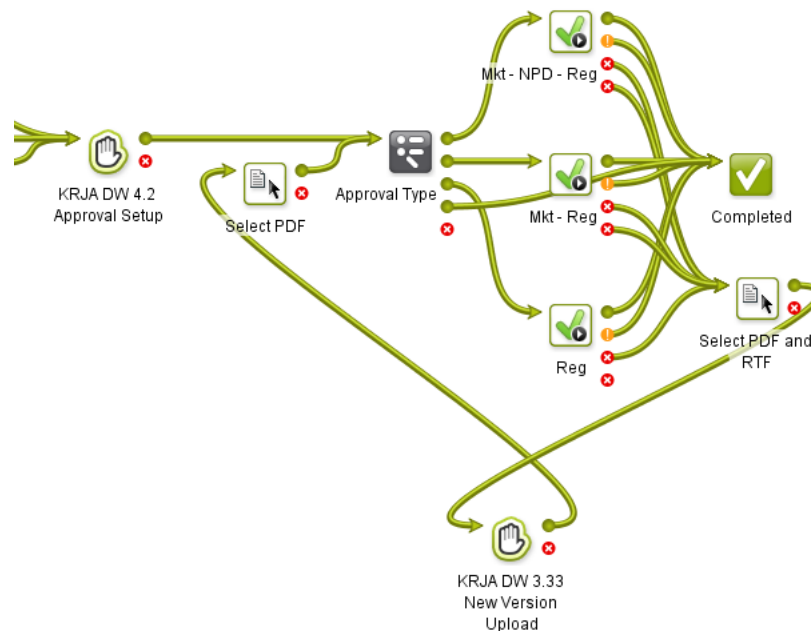


### Router



The **Router** workflow control serves to automatically decide the route that your workflow (tokens) should follow.

When a workflow arrives at this node, the workflow will continue over one of the configured output pins based on the specified rules. You can also create SmartName powered rules for routing.



The screen shot above shows how to route a document through different paths depending on its **project attribute**. The router decides which department should approve the document based on this project attribute.

- These are the settings in the Router:

Route based on: Project Attribute	
Attribute: KRJA RES DW Routing Options	
<input type="checkbox"/> Case sensitive	
Project Attribute	Route to
is Marketing > NPD >Regulatory	Marketing > NPD >Regulatory
is Marketing > Regulatory	Marketing > Regulatory
is Regulatory (Only)	Regulatory (Only)
is No Approval Needed	No Approval Needed
no match	Error

The rules were defined based on the attribute values. The **Route to** names correspond to these values.



**Note:** The rules are executed from top to bottom. Their order can be changed with **Move Up / Move Down**. The last rule, **no match** will be applied when the other options are not applicable. This will result in **Error** or a custom label.

Routing can be based on many different criteria (see the list below).

You can make all of them except the **Project Status Case sensitive**. Enable this option to match the exact case.



**Note:** The leading and trailing spaces are always ignored.

### Adding and deleting rules

You can **Add** or **Remove** rules. Use the options on the right hand side.

To **Add** a rule:

1. Click the **Add** button. For each additional rule another output dot is added to the node.
2. A new line appears under the current selected row (**no match** always stays at the bottom of the list). Select the operator and value for your rule.



**Note:** The name of the output will be the same as the matching value by default. However, you can edit the name.

3. You can choose **Move Up** or **Move Down** to change the order of your rules, except for the **no match** rule. The **no match** rule stays at the bottom.



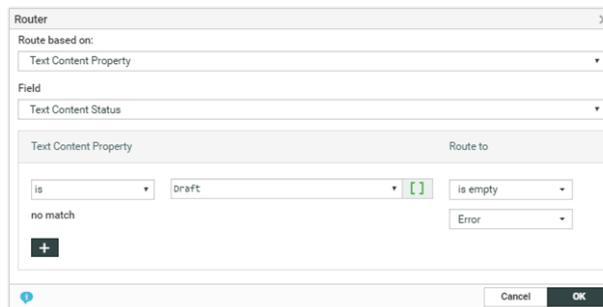
**Tip:** You can also set the same output token for multiple rules. To do this, select the same from the drop down The node will then have less output dots than there are rules.

To **Remove** a rule:

1. Select the rule you wish to remove.
2. Click the **Remove** button.

It is not possible to delete the **no match** rule.

### Routing on Text Content Properties




Routing on Text Content Properties can be setup during execution, when setting main routing dropdown on Text Content property, the Field selector allows following values:

Depending on the Text Content property, different options appear in the rule.

The **Text Content Fields** become available only if PCM license is enabled:

- **Text Content Status** : this is the overall status of a Text Content document. Options available are Draft and Signed Off
- **Text Content Element Status**: This is a status of a particular language that needs to be selected from language drop down. Options are Draft, Pending Sign off, Signoff Rejected and Signed off.
- **Element type**: All the Text Content element types supported in the system
- **Approval Type**: Default, All of role, one per group and One of role.
- **Invariant**: True or False



- 
**Note:**
  - Two rules apply to text Content Properties:
    - Is valid if the Text Content Property value equals the value in the drop down field of the rule
    - Is not valid if the Text Content Property does not equal the value in the drop down field of the rule.

- When a workflow comes in router having Text Content Property rules, the incoming documents will be checked and put on the corresponding output pin as per the routing rules. If you have multiple documents coming in, each of them is routed and put on the right pin.

Anomaly Handling: If there are no input documents, a **No Input Documents** error is put on the error pin. If the Text Content Property cannot be found (for other type of documents), a **Text Content Property not found** error is put on the error pin.

**Routing on Project Field**

**Route based on Project Field**


Route based on:

Field:

Case sensitive

Project Field	Route to
contains Design	Match
no match	Error

Buttons: Add, Remove, Move Up, Move Down

Field list	As an example, use this to...
<ul style="list-style-type: none"> <li>Project Name</li> <li>Project Description</li> <li>Project Manager</li> <li>Sales Person</li> <li>Customer Name</li> <li>Customer Location</li> </ul>	<p>Decide which part of the workflow to follow based on naming conventions of the project name.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <b>Note:</b> Use SmartNames to make the rules dynamic.         </div>

**Routing on Project Status**

**Route based on Project Status**

Project Status

Project Status	Route to
is 1.1 PCOLLECT approve release complete	1.1 PCOLLECT approve release complete
no match	Error

Buttons: Add, Remove, Move Up, Move Down

When a workflow comes in a router checking on project status, the status of the project in which the workflow runs is checked at that moment and matched against the values in the rule list.

Field list	As an example, use this to...
<p><b>Project Status</b></p> <p>Choose from:</p> <ul style="list-style-type: none"> <li>All project statuses (Select from the drop down containing all the statuses including the custom ones.)</li> </ul>	<p>assign a different path depending on the status. For example, 'Design' versus 'Correction'.</p>

**Routing on Project Attribute**

Field list	As an example, use this to...
All attributes in the system	Decide where to go based on the value of an attribute 'Project Type'.

**Routing on attribute values**

When you configure the routing based on the attribute values, the behavior depends on the **attribute type**.

For **Text** attributes:

- **Is empty**: applies when the attribute is not filled out.
- **Is Equal To**: valid if the **attribute value** equals the value in the input field of the **rule**.
- **Is Not Equal To**: applies if the **attribute value** equals the value in the input field of the **rule**.
- **Contains**: applies if the **attribute value** contains the specified **rule** value.
- **Does not contain**: applies if the **attribute value** does not contain the specified **rule** value.
- **Matches**: applies if the **attribute value** matches the specified **rule** value. This value can contain wildcards and regular expressions.
- **Begins With**: valid if the attribute value begins with the **rule** input.



**Note:** Leading spaces are ignored.

- Example: Attribute value = Sales Belgium and the rule says [Begins with] "Sales".
- **Ends with**: Similar to the **Begins with** option. The rule applies if the attribute value begins with the **rule** input.



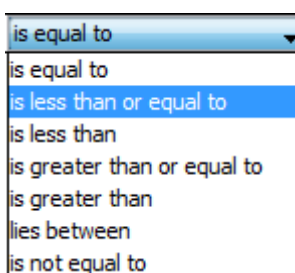
**Note:** Trailing spaces are ignored.

For **Restricted Sets** and **Cascading Attributes**:

- If the selected attribute is a restricted set, the rule options will be limited to **is** and **is not**. The input field will have a drop down list with the restricted set values.  
If your restricted set is a check box, the unchecked value resolves to **no match** instead of no.
- The **cascading** drop-downs defined by a list will be treated as text attributes, not as restricted set attributes.

For **Numeric Attributes** (integer, float, weight, dimensions...):

The rule drop-down now has the following options:



You can specify one or two floating point values in the input field.



**Note:** When you specify **lies between**, the lower and upper limits will be taken in. For example, 4 lies between 4 and 6. To exclude 4, type in 4.00001 (or 5 for an integer attribute).

When a project does not have the selected attribute (not part of the attribute category), the router will always take the **no match** route.

For **Multi-value Attributes**:

If you are routing based on a **multi-value attribute**, the values are compared individually to the specified rules.

For example, if your "Packaging Type" attribute has values:

- Label | Folding Carton

and the **rules**:

- is equal to Label'
- 'is equal to Folding Carton'

the **router** will have two outgoing pins with tokens.

**Using SmartNames:**

If your rule value is a SmartName that resolves to a multi-value attribute, the rule is evaluated as "OR".

If your packaging project has a language attribute with multiple values, you may want to use this to filter the documents (language variants with a Language attribute) to direct them through different paths. To do this:

- Configure your **Router** to **route based on Project Attribute** Languages.
- Configure your rule to specify Languages (Document)

If your **project attribute** "Languages" has the the value "English", the router will select documents with the attribute (a multi value attribute with values as different languages) that resolves to the value "English".

If the **document attribute** values are English and Dutch, the rule will be evaluated as:

- Project "English" is Document "English" OR
- Project "English" is Document "Dutch"

In this example, the router will direct all the documents with "English" to the first output pin and the others with "Dutch" to the **no match**.

**Routing on Document Reference Attributes:** If you are routing on **document reference attributes**, the router will treat it like text attributes. If you have a multi-valued document references, it is possible to route based on the referred documents. It will route based on the **document name** of the references.

**Routing on Reason(s) for Rejection**

You can use the router to redirect the workflow based on the reasons selected for rejection.

The Router workflow node can collect information on the reasons for rejection of a document in any (every) stage of the approval cycle. You can choose to enable the **Handle Reasons of All Stages** option in the **Router** workflow node. If the option is not checked, the document is by default routed on the reasons for rejection for the latest approval stage only.

**Router**

Route based on:

Reason(s) for Rejection

Handle Reasons of All Stages  
 Handle Reasons Separately

All rules operate on the string 'reason @ category'

Reason(s) for Rejection		Route to
contains	Barcode wrong or missing	barcode wrong
contains	Base Artwork reference incorrect	Base Artwork r
contains	Incorrect Languages	Legal
contains	Missing Languages	Legal
no match		Error

+

You can choose **Handle Reasons Separately** to ensure each stage is checked against the rules separately.

Reasons chosen for rejection may be in different categories and you can route the documents specifically on a particular category of the reason. To do so, specify the rule as 'reason @ category'.


**Routing on Document Name**

Route based on: Document Name

Case sensitive  Include the file extension

Document Name		Route to
contains	.ard	Design
no match		Error

Add  
Remove  
Move Up  
Move Down

Field list	As an example, use this to...
<p> <b>Note:</b> Select <b>Include the File Extension</b> if the entire document name has to be checked for.</p> <p>Otherwise, the extension is parsed off before doing any comparison.</p>	<p>Decide where to go based on naming conventions of the incoming document.</p> <p>Your incoming documents will be routed and put on the right pin based on the name.</p> <p>Example: If you have three documents "A.jpg", "B.jpg" and "C.png" with two rules "contains jpg" and "contains png",</p> <ul style="list-style-type: none"> <li>the two .jpg documents will be in the output pin .jpg. These two will follow the workflow together</li> <li>and the .png document will be in the .png pin.</li> </ul> <p>If you are including the <b>file extension</b>, you can check for types of files using <b>ends with</b> rule.</p>

**Routing on Document Attribute**

Route based on: Document Attribute

Attribute: DC\_2\_Artwork Draft Approval

Case sensitive


Document Attribute	Route to
is Yes []	Yes
is No []	No
no match	Error

Buttons: Add, Remove, Move Up, Move Down

Field list	As an example, use this to...
<p>All attributes in the system</p>	<p>Decide where to go based on a document attribute such as "Packaging Type" which can have values like Label, Folding Carton, Corrugated Box, etc..</p> <p>The incoming documents will be checked for the specified attribute and will be moved to the right pin based on the first matched <b>rule</b>.</p> <p>If you route on a multi value attribute of the document, that document can occur on multiple output pins (each value is evaluated separately, which is in line with routing on a multi value project attribute or task specification).</p>

Read about using different types of attributes and **SmartNames** in [Routing on attribute values](#) on page 980

**Routing on Workflow Specifications**

Field list	As an example, use this to...
<p>All specifications of the workflow task (so not all specifications in the system).</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>Note:</b> If you want to see the <b>specifications</b>, you should add them in the <b>task type</b>.</p> </div>	<p>Decide where to go based on decisions taken earlier in the workflow and saved in the workflow's task specifications.</p> <p>For example, you can use <b>Set Workflow Specification</b> node first to set the specification values and use them in the <b>Router</b> later on in the workflow.</p>

**Routing on Text Content Properties**

You can route your Text Content statements according to their **Text Content Property**.

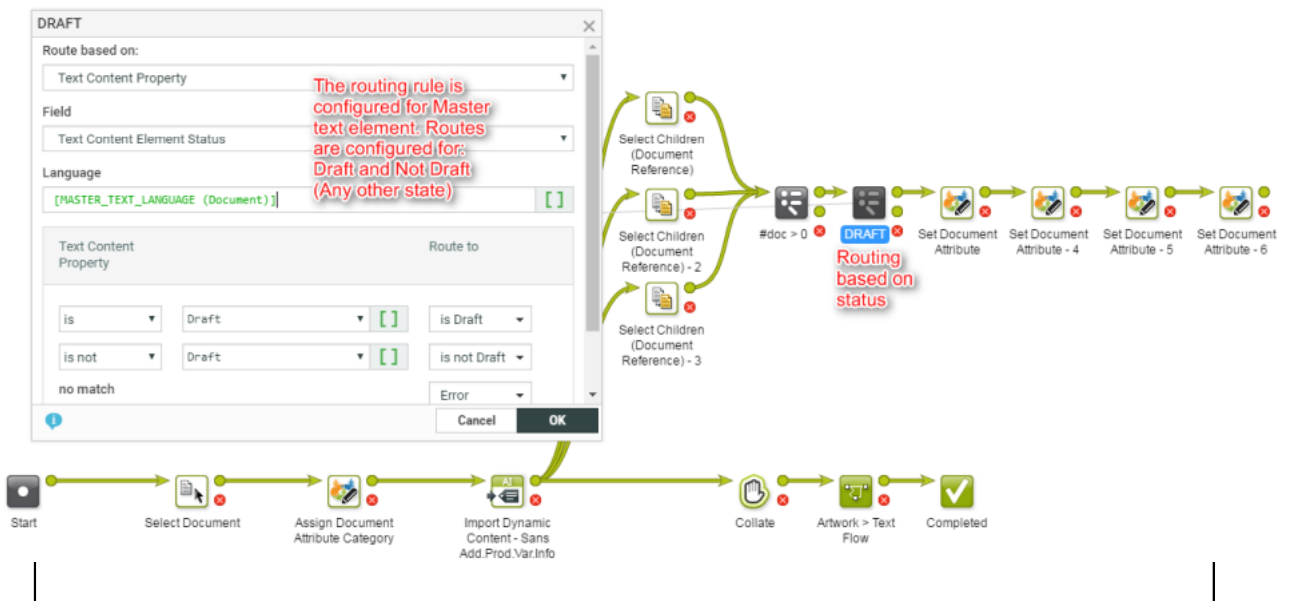
When a workflow arrives at this node, this step will filter the statements and documents based on the Text Content Property and route them based on the rules.

When you select **Route based on Text Content Property**, you have the following options:

**Text Content Status**

This is the status of the overall document including the individual language statements. You can route based on whether the document is in **Draft** state or is **Signed Off**.

You can add one **Language** parameter in the node. In this example, the `Master Language` SmartName is used.



In the example above, the routing step:

- redirects **Draft** documents to Set Document Attribute step.

### Text Content Element Status

This is status of a particular language Statement that needs to be selected from language drop down. You can route based on:

- **Draft**
- **Pending Sign-off**
- **Sign-off Rejected**
- **Signed Off**

The screenshot shows a 'Check Master Lang Status' dialog box with the following configuration:

- Route based on: Text Content Property
- Field: Text Content Element Status
- Language: English - United States

Text Content Property	Route to
is Signed Off	Completed
is Pending Signoff	Check Master Lang Status
is Signoff Rejected	Check Master Lang Status
no match	Error

The workflow diagram shows a 'Router' step routing 'Signed Off' elements to 'Completed' and other statuses back to 'Check Master Lang Status'.

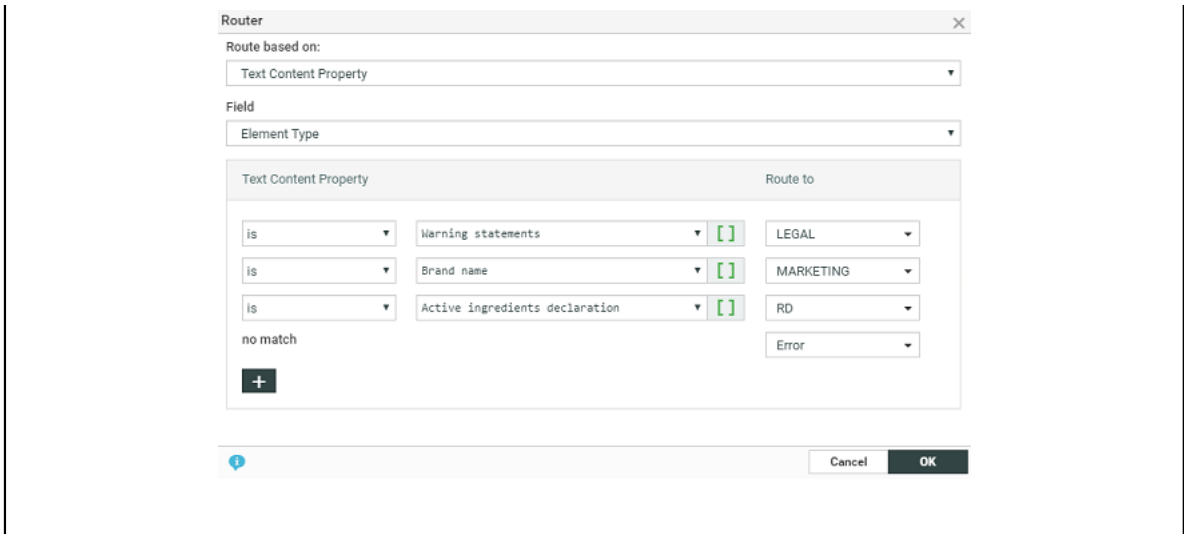
In this example, the **Router** routes the Signed off elements to the next step, whereas the other elements are sent back to the editors.

### Element Type

All configured Element Types are available and you can create routing rules based on a type. For example, you can route all `Warning` statements to Legal Approver.

See the example screen shot below.



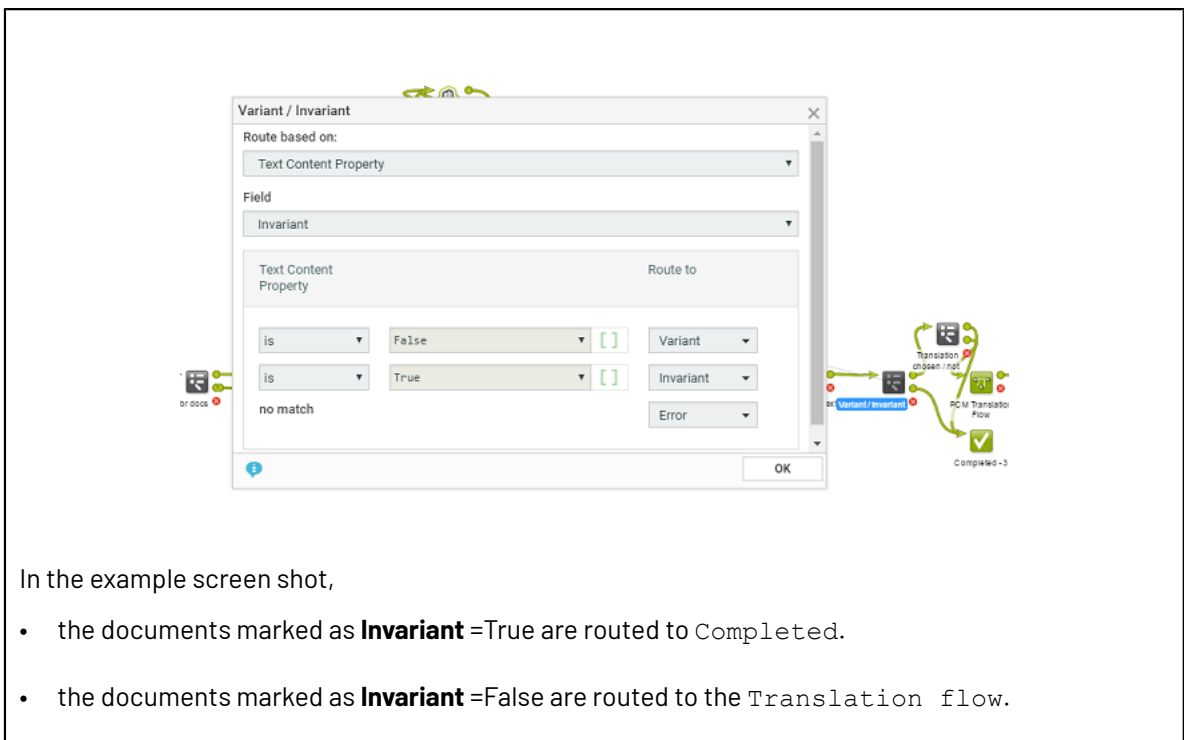


You can route documents based on it's **Approval Type**. Configure the routing rules based on the fields below.

- **Default**
- **All of Role – One per Group**
- **One of Role**

**Invariant**

To route documents based on whether translation is needed or not, you can use the **Invariant** parameter.



In the example screen shot,

- the documents marked as **Invariant** =True are routed to Completed.
- the documents marked as **Invariant** =False are routed to the Translation flow.

**Stop**

Use the **Stop** node to stop the workflow before being completed. When a workflow token arrives at this step, it stops the workflow.



**Note:** The task status will be set as **Completed** if at least one route of the workflow gets completed. If none of the workflow routes are completed, the workflow will end in error state.

**Statuses**

Use statuses node to give the workflow task in the project the desired status. The workflow task can have any of the statuses defined in the Task Type it was created from.

This means that you need to:

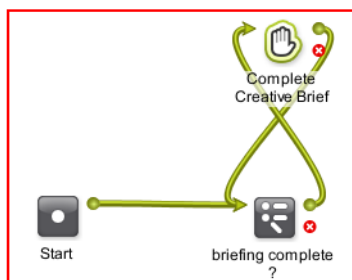
1. think about which statuses you need before creating the workflow,
2. ask your Administrator to create them if they don't exist in the system yet,
3. add them to the Task Type you want to create the workflow from (see [Add Task Statuses](#) on page 847),

and then create the required workflow.

If you didn't add any particular status to the Task Type, the workflow will only have the **Completed** status node.

**4.15.15. Workflow Example**

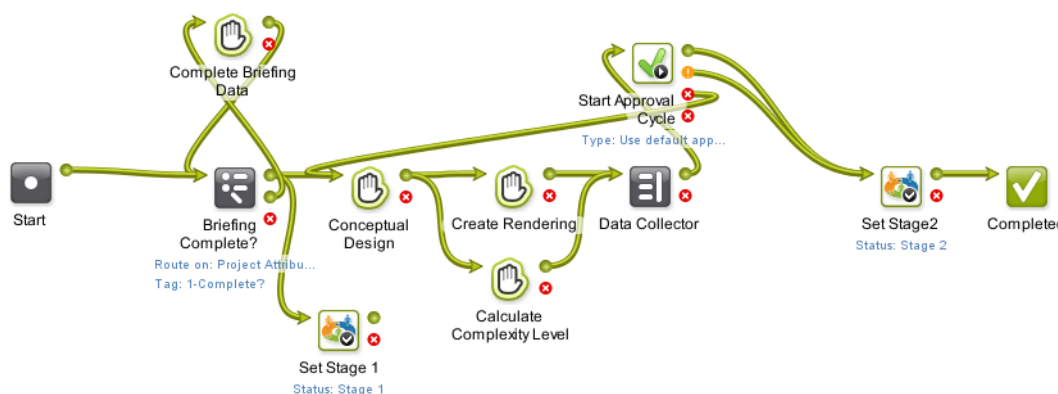
The example below describes a workflow from the **Start** node to the **Completed** state.



The *Router* (in the example renamed as *Briefing Complete?*) in the workflow will verify if the briefing is completed.

- It checks if all specified Project Attributes are filled out. If it is all completed, the workflow will continue to the **Conceptual Design** node.
- If the Project Attributes are not all filled out, a manual task **Complete Briefing Data** is created and will be assigned to its assignees.

- In the **Conceptual Design** phase, the workflow takes parallel paths. When one of the tasks is completed its token moves to the **Data Collector** node. The Data Collector node will wait for the two tasks to complete and send the tokens to the **Start Approval Cycle** step.
- Depending on the outcome of the **Start Approval Cycle** step, the workflow moves forward or sends the token back to Design phase.



When the workflow is **Completed**, it will show up as completed in the **Project > Tasks** list. All tasks that were created during the workflow will show up as subtasks of the workflow task.

### 4.15.16. Working with Workflows



**Note:** A workflow can be started by Administrators, Project Managers and people with the **Change Task** right in the Project.

The workflow starts when its task in the Project (created from the workflow task type) is put in an active status (typically **In Progress**).

#### Workflow Feedback and Actions

##### Viewing the Workflow Feedback

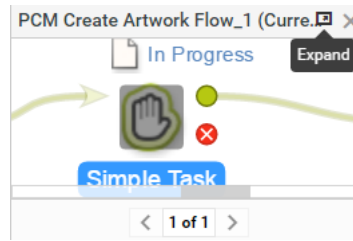
You can view a workflow's feedback from **Project > Tasks** page. To open the workflow feedback page either:

- hover over the task name and click the **Workflow** icon.



**Tip:** You can use the **Edit** button to access the [Workflow Editor](#) and edit it.

- or click the **Show Active Nodes** and **Expand** the mini Feedback view.



**Tip:**

**Show Active Nodes** View zooms to the currently active node(s). If there are more nodes use the **Step Through** . Read below in [Troubleshooting tools](#) on page 991.

Project: PCM Artwork Library Update00001 Active Copy Task

**Upload**

- Upload Multiple Documents
- Mail link to
- More...

Manager: Varghese, Shalet (SKVA)

Customer:

Due On:

Modified: May 9, 2016

Description:

---

Documents 1   **Tasks 3**   Attributes   Project Information   Approval   Members   Security   Configure

Task Information   Specifications   Documents   Checklist   Discussions   **Workflow**

Zoom
Step Through
Navigation

Workflow Controls

Undo/Redo

▶ In Progress
PCM Create Artwork



**Note:** When the workflow is not running, all controls are disabled.

In the toolbar of the workflow editor, you will see:

- [some of the workflow tools](#),
- controls,
- the status of the workflow,
- the name of the Task Type,
- and view tools.

Read more below:

The following workflow statuses are self-explanatory.



 **Workflow Canceled**

**Workflow Paused**

 **Created**

 **Completed**


 **Workflow Error**

**Workflow Controls**

Use  to **Hold Workflow**


Use  to **Resume Workflow**


Use  to **Cancel Workflow**

 **Note:** These actions can be performed only on Active Workflows.

Read more about [Pausing and Resuming a Workflow](#) on page 992.

**Troubleshooting tools**

Use  to **Highlight** the Active Nodes and Error Nodes. The workflow fades out everything else.

Use  to **Step Through** all active or nodes in error state by zooming into them one by one.

**Stepping into Sub-workflows**


When you have embedded workflows, you can step into a sub-workflow from a master workflow's canvas. To do this:

- 
- Right-click on the **In Progress**

Right-click on the token above the sub-workflow node or on the sub-workflow node itself. Select the **Step into Workflow** option from the context menu.


**CTRL+Double-click** on the token above the sub-workflow's task node or on the node itself.

To access the master, click on the link from the top right corner of your subworkflow.

 **Note:**


- This is only possible when your master workflow is in progress.
- You can use your browser's Back and Forward buttons after you step into the sub-workflow.

### Pausing and Resuming a Workflow

The administrators, project managers and users who can edit tasks can pause the workflow by clicking the **Hold** . The tokens (in a node) that are in progress will be paused after they finish.



**Note:** The workflow status will change to **in Hold**.

To resume the workflow, click the **Resume**  button. This control becomes active only when a workflow is paused. This will move the tokens to the next step in the workflow.




**Tip:**

You can try holding and resuming to get out of workflow “hangs”.

After resuming, the workflow status becomes the current status.

### Cancel a Workflow

A user with task edit rights (Admin, Project Manager and members with task edit rights) can **Cancel**  a workflow in progress.

The ongoing workflow tokens will be cancelled and these will be moved to the error pin.



**Note:**

- Stopping a workflow will delete all the subtasks that are not completed yet.
- The **status** will change to **Workflow cancelled**. This is logged in the Project History. A canceled workflow will always show the task status as canceled regardless what is already completed. You have to enable **Include in Project History > Workflow Canceled** to include the cancellation events in the Project History.

### Solving a Workflow Failure

When a node goes into failure, you can either:

- **retry** the failed node after correcting the cause of failure,
- stop the **workflow**,
- **relaunch**(first, correct the cause of the failure) the workflow.



**Note:**

- We recommend you use the [Error Handler node](#) for troubleshooting your workflow.
- When a workflow has more than 5000 tokens (for example documents traveling through it), it will be canceled and reported in the Project History. This typically happens when the workflow is stuck in an endless loop.

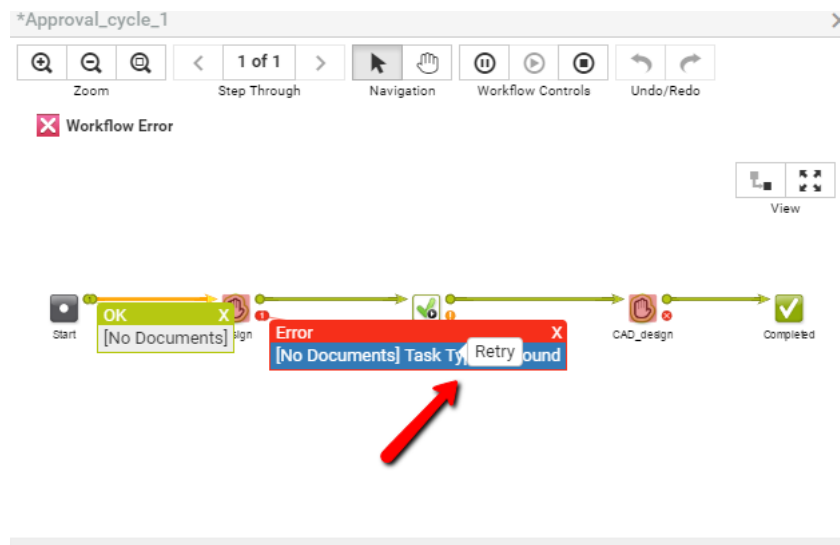
**Retry a Workflow Node**

If your workflow failed due to an issue (for example a missing approval setup) and you have corrected the problem, you can **retry** the workflow.

Right-click on the failure icon (the red ellipse) and right-click again to **Retry**. Do this after you have fixed the issue that caused the workflow failure.



**Note:** The **Retry** is accessible when the user has Task edit rights

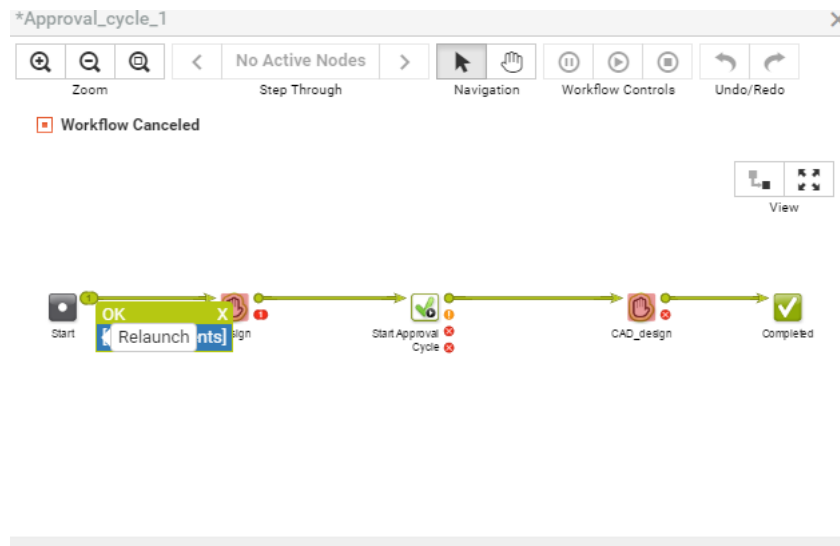


The remains to indicate the workflow's history.

**Relaunch a Workflow at a Certain Point**

A user with task edit rights (Admin, Project Manager and members with task edit rights) can right-click on any output token with a number and **relaunch**.

This will re-create a new workflow task that is similar to the task that gets relaunched.



**Note:**

1. The workflow needs to be stopped first (see [Cancel a Workflow](#) on page 992).
2. This only works for first-level workflows, not for workflows which are already started from another workflow.



**Note:** When a workflow is re-launched, WebCenter automatically makes sure that any dependent tasks will depend on the new workflow task, rather than on the cancelled one.

## 4.16. Packaging Content Management in WebCenter

### 4.16.1. Introduction to Packaging Content Management in WebCenter

WebCenter Packaging Content Management offers a simplified platform for creating, translating, approving and managing text / copy assets.

The Packaging Content Management module offers:

- a repository / library for your text content with GS1 tagging
- re-use of your content across multiple projects
- support for a translation based or single language workflow.
- export to and import from industry standard formats
- ability to view and edit your text in the context of your artwork in the WebCenter Viewer.
- a complete approval workflow



- established content rights facilitating the ownership at different stages

## 4.16.2. Working with Text Content

With the right *permissions*, you can edit, start approval or approve in all the following pages:

- *Text Information* tab. Here you can only view and perform actions on the single text document and its elements.
- In Copy Sheet (Text Document References) attached to an Artwork or a Project. You will have a view of multiple text documents. You can perform actions on their Master or Translation Elements. Read more in: *Creating a Copy Sheet* on page 398.
- In a Task Document Rendering. Here also, you can view and perform actions on Master or Translation Elements of multiple text elements.
- In the Viewer Text Content Widget. You can perform the same actions, but you can use viewer filters to filter text content. Read in: *Viewing Text Content*


### Text Document Details

When you click on a Text Content Document Type icon, the **Document Details** will have the **Text Information** tab with the following sub-tabs:

- **Content**
- **Permissions**
- **Compare**

The screenshot displays the 'Text Information' tab with sub-tabs: Document Information, Approval, Action History, Annotations, Projects, Attributes, References, Characteristics, Discussions, and Test doc view. The 'Content' sub-tab is active, showing 'Preparation instructions' for Master (M) and Translation (T) in English - International and English - United States. The 'Master Text' section lists three text elements with their content and language. The 'Translations' section lists 'Dutch - Belgium' and 'French - France'.

**Text Content Tab**

The **Text Document > Text Information > Content** tab displays all the content of the document along with its classification and languages. To **Configure Content**, click on the  (gear) icon to expand and view the following info:

- **Element Type**
- **Approval Setup**
- **Type** of Text
- **SmartText Search**
  - **Auto Suggestion**
  - **Allow only Single SmartText**
  - **Allow Inherit content**
  - **Inherit Content from**
- **Character Limit**
- **Invariant** or not



**Note:** When you (as the Content Manager) change the text type, the Text Statements affected by this change will be put into **Draft** status.

- **Languages:** The Master and Translation languages will be listed here. You can see the language flags and the respective names. You can customize the language flags by following the steps given in the WebCenter Customisation Guide.



**Note:** If the language selected is typed from right to left like Hebrew or Arabic, the text is displayed or edited right to left.

Content    Role Mapping    Compare

---

Packaging claim

M:

T:

Element Type	Packaging claim <span style="float: right;">▼</span>	Master Language  English - International
Approval Setup	All of Role - One per Group <span style="float: right;">▼</span>	Translation Language  Dutch - Belgium
Text Type	SmartName <span style="float: right;">▼</span>	French - Canada
SmartText Search	PCM Text Content Library Search <span style="float: right;">▼</span>	
	<input type="checkbox"/> Enable Auto Suggestion <input type="checkbox"/> Allow only Single SmartText <input type="checkbox"/> Make this an Invariant Document <input checked="" type="checkbox"/> Allow Inherit Content <input checked="" type="checkbox"/> Inherit Only SmartText	
Inherit Content from	English - International <span style="float: right;">▼</span>	
Character Limit	100	

Read more about the concepts in: [Basic Concepts](#) on page 505.

### Working in the Content Tab

You can perform Text Content related actions in this tab if you are a Content Manager / Editor / Approver or Add Language permission. You can perform the actions for which you have permissions enabled.


If you are a **Content Manager**, you can do the following:

- Select the **Element Type** of the Text Document.



**Note:** The **Element Type** drop down is configured as a [List](#) and is only editable by Content Managers. The regular users can see only the specific **Element Type** of the document as a label.

- Select the **Type of text**: Text can be Simple, Rich text, or Smart Name. When you choose the text type as a Smart Name, you can view the **SmartText Search** field.
  - **SmartText Search** drop down displays all the saved searches for the text content document type. This field is optional and can be left blank. Read more in [Create Smart Text in Text Content](#) on page 998.

You can resolve the Smart Content (containing both SmartName and SmartText) by clicking  or saving the document.

- **Enable Auto Suggestion**: Suggested existing text content is shown, while you type the text content. This option is enabled only if SmartName is chosen as the Type. When you are trying to add text, the suggested text is visible as a tooltip for exceptionally long text statements for accurate selection. Auto suggestion texts are taken from the results of configured saved search.
- **Allow only Single SmartText**: Restrict to allow only one SmartText in all of the languages present. This option can be used when you have to restrict the content to a Smart Text like a value (weight in grams).
- **Make this an Invariant Text Document**: Enable this, if translations are not required for a particular Text Document. For example, Brand Names.

Text documents can have only one master language, when the document is marked as invariant.



**Note:** Invariant content which existed prior to 18.1 and has more than one master language, will become non-invariant.

- **Allow Inherit Content** : You can choose to either follow the **Master Language** or **Default** to the element type choice or choose **None**. Read in detail about this option [here](#).
- **Character Limit**: You can set the number of characters that are visible in the widget. Warning message will be displayed if the limit set is exceeded.
- Define the **Approval Setup**:
  - **Default**: Only one member has to approve. For example, if the Approver permission is assigned to two Roles, only one member (from any Role) has to approve.
  - **One of role**: One member of each Approver Roles (assignees) has to approve to complete the signing off. In case a Role is assigned to several members (groups or users), any Group member or user from that Role can approve.

- **All of Role – One per Group** : At least one member from each Role-Group has to approve. If there is an individual User, then he or she has to approve as well.
- [Add or Delete](#) Master and Translation Languages

This list will contain the document's selected languages. You may have more languages to add from if they are present in the Project's Attribute Category.

If you are an **Editor** or a **Content Manager** with Editor permissions, you can

- Modify text and save changes
- Edit content and start Approval in the text widgets if you are an Editor. Read in: [Editing Text Statements and Starting Approval](#) on page 1010.
- Start Approval or change the status back to Draft.



An **Approver** can:

- [Approve or Reject Text Content](#)
- [Add new Comments as an Approver/Editor](#)

A user with **Add Language** permission can add specific languages for which permission has been assigned.



**Note:**

- It is important to click **Save** after every action to save changes to the status element. A new document version is created after each **Save** action. You can view these changes in the Document's **Action History** page.
- The older versions of the Text Content Document are displayed as read-only (even when you have the right permissions). To **Reload latest version**, click .
-  **Tip:** There is no direct way (even as the Content Manager) to change the status of the **Signed Off** Text Documents. Only an Admin user can make this change.

**Create Smart Text in Text Content**

Smart Text can be created for text contents which are reused frequently. The referenced Smart text content may be within the same project or could be in multiple projects.

Changes made to the referenced text content in any one of the project, creates warning message wherever the document is referenced in other projects. Although the text content is updated, the approval of the text content has to be done in each project. This allows flexibility to retain the old version of the text content or to update to the latest version.


**Getting Started with Smart Text**

Ensure you have a:

- Saved Search configured with text content which is chosen as a Reference Source.
- Document reference attribute named SMART\_TEXT\_REFERENCE added to the text content document.

**Add Smart Text by Clicking**

Smart Text can be created by any user with Content Manger or Editor Permissions.

When user clicks on  icon, configured Saved Search results chosen in **SmartText Search** Field is shown to the user in a pop-up.

User can select one or multiple Text Content documents to add. Selected documents are shown as Smart Text in the Text Content editor. If saved search is not configured, or Reference Source is not chosen, then Smart Text cannot be added.

### Add Smart Text by typing text in Text Content editor

Select **Enable Auto Suggestion** to get prompts automatically when you type in the text content box. Minimum of four characters should be typed for the search to be performed. You can choose any one of the text content from the list of suggestions shown. Selected Text Content is shown as **Smart Text** in the editor. Auto suggestions are not shown, if no matches are found for the text keyed in. You may add any number of Smart Text in the text content editor.




**Note:** If saved search is not configured, then auto suggestions are not shown even if the **Enable Auto Suggestion** is selected.

Editors or Content Managers while editing an existing Content Sheet or an Attribute category or creating a project, may want to add a text statement that is not available in the text library.

A new text statement can be created on the go in the same page, and it is instantly added to autosuggest and creates a smart reference even before saving the page.

### Resolve Smart Content

The Language statement's smart text will be resolved automatically on save of the document.

Alternatively you can also click  to resolve the Smart Content that are added to the text content editor.



**Note:** When Smart Content gets resolved in any language, other statements following that language are resolved automatically.

For Example, if **French** and **Dutch** languages are following **English** language text, while resolving **English** both **French** and **Dutch** language contents are also resolved.

Warning messages will be displayed when the Smart Text:

- added are resolved and it contains no text
- is empty or is broken
- character limit set is reached
- is not resolved although the user has permissions
- are not of the latest version and reference is made to an older version of the text document. You can click on the Smart Text, where the user can optionally update to the latest version.

### Copy Smart Content

#### SmartText Language

When a SmartText is added, by default current language is selected for the SmartText. You can change from current language to any of the Master or Translation language by clicking on the SmartText pop up window.

A language inherits content from another language:

- If the source language in the SmartText language is configured to current language, then the inheriting language will get content for its own language

- If the source language SmartText language is configured to a specific language, then the inheriting language will get the same content of the source language

**Approve Smart Content**

Smart content has to be resolved before the element is approved.

**Delete Smart Text**

You can delete Smart Text in the text content editor. On save, the text content is removed from Document Reference attribute also.

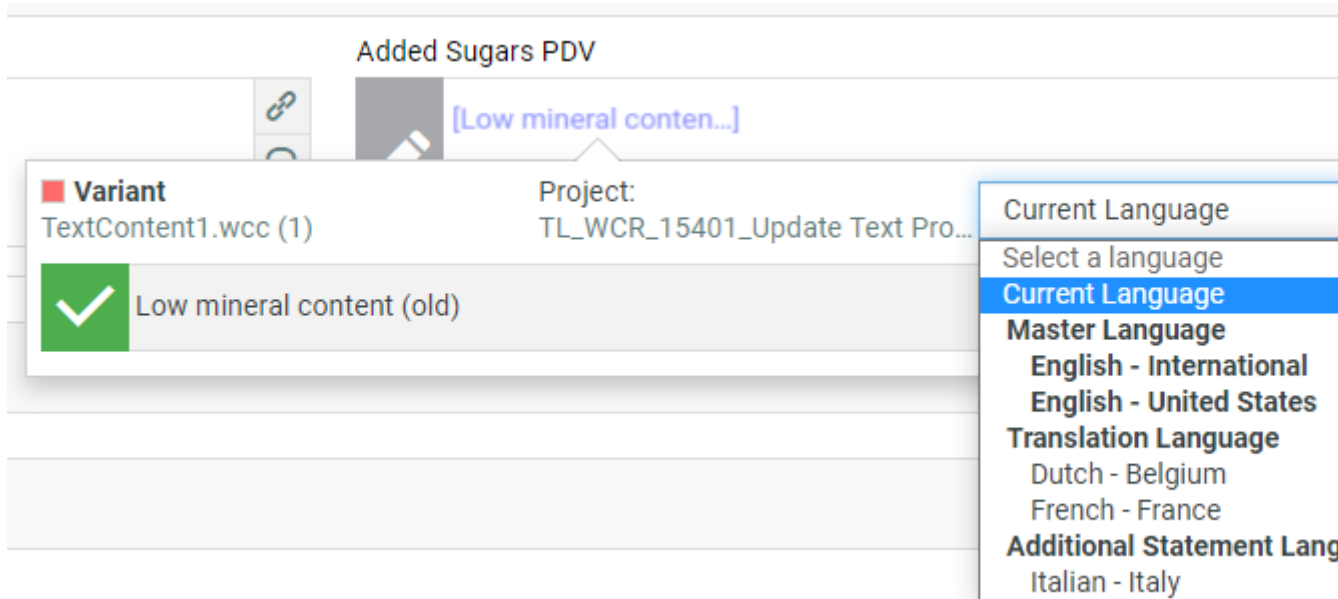
**Smart Text pop-over**

You can click on the SmartText to view the referenced content in a pop-over.

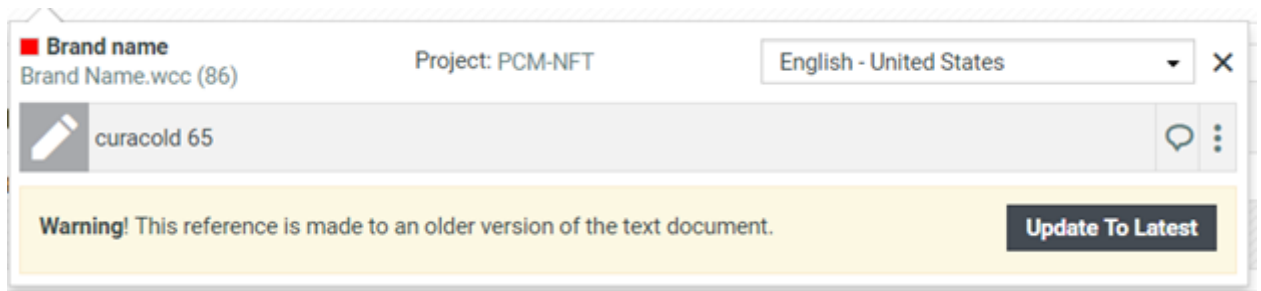
Pop-over contains the following:

- View of the referenced text statement
- Text Document Name along with the Version
- Project Name where the referenced text statement is present
- Language selection dropdown, which allows you to change the SmartText language to any of the languages available.

You can select the languages available in the referenced text statements even though the language may not be available in the current project.



- Warning message if the referenced text is not the latest version and an option to **Update to Latest**.

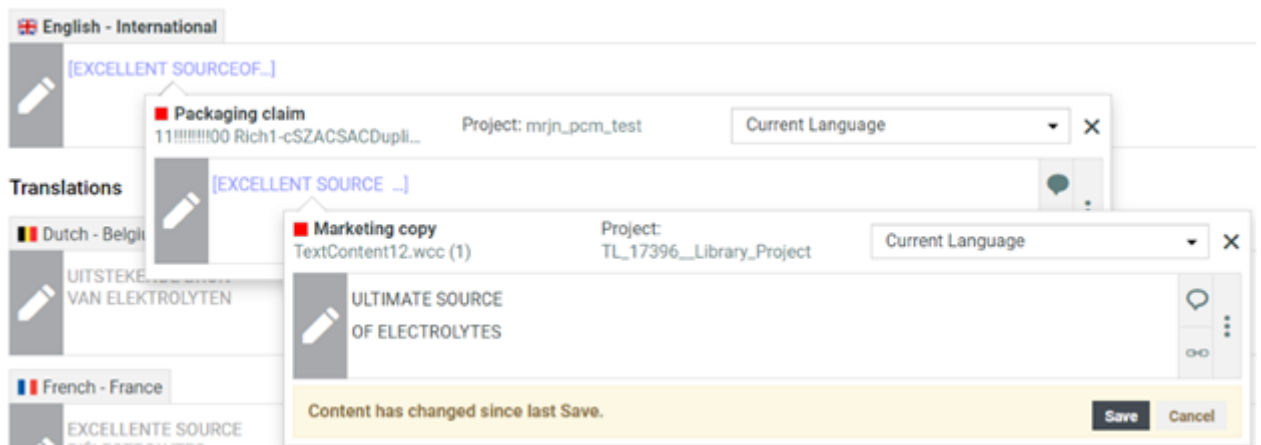


**Note:** You cannot revert back to the previous version if you update the referenced text.

### Editing Smart Reference in popover

When you click on a smart reference, a popover is opened to show the used smart reference text. The referenced text can be edited provided you have the permission. You can then either save the changes or cancel.

A new version is created for the referenced statement with all the changes made.



When Latest Version is selected, then the current statement is resolved automatically and you can save the document. When Selected Version is selected, then along with save, referenced statement is also be updated to latest version automatically.

Any change made at any level of the smart text reference, has to be saved at the same level and also in all the levels further.

## Permissions Tab

### Permissions

This tab displays all the permissions enabled in the Text document.

**Permissions** field is used to select the permission model to be followed by Text/Table Content documents, there are three options:

#### Only use local permissions

Selecting this option will allow only content documents to use **Local Permissions**, under **Permission** tab, that are defined in the text content document.

**Only use global permissions**

Selecting this option will allow only content documents to use **Global Permissions**, under **Permission** tab, that are defined in the text content document.

**Allow both global and local permissions**

Selecting this option will allow content documents to use either **Global Permissions** or **Local Permissions** depending on the setting in an individual Content document.

Admin user can toggle between **Local Permissions** and **Global Permissions** by clicking **Manage Permissions** in the Permission tab of a document and change the checkbox **Use Local Permission**.

In Role Mapping page of a TextContent/TableContent document, Role field contains SmartName support. The supported SmartNames are Language code, Language description and Responsible values from the permission row where the role is configured. In preview mode the SmartNames will be resolved and mapped with the corresponding Roles.

**Manage Permissions**

Content Permission ⓘ	Language	Role
EDITOR	🇬🇧 English - International	<a href="#">LANGUAGE ENGLISH - INTERNATIONAL EDITOR</a>
EDITOR	🇳🇱 Dutch - Belgium	<a href="#">LANGUAGE DUTCH - BELGIUM EDITOR</a>
EDITOR	🇫🇷 French - France	<a href="#">LANGUAGE FRENCH - FRANCE EDITOR</a>
APPROVER	🇬🇧 English - International	<a href="#">PCM APPROVER</a> <b>Prefix and Suffix in Role Names</b>
APPROVER	🇳🇱 Dutch - Belgium	<a href="#">LANGUAGE DUTCH - BELGIUM APPROVER</a>
APPROVER	🇫🇷 French - France	<a href="#">LANGUAGE FRENCH - FRANCE APPROVER</a>
ADD LANGUAGE	🇬🇧 English - International	<a href="#">LANGUAGE ENGLISH - INTERNATIONAL ADD</a>
ADD LANGUAGE	🇳🇱 Dutch - Belgium	<a href="#">LANGUAGE DUTCH - BELGIUM ADD</a>
ADD LANGUAGE	🇫🇷 French - France	<a href="#">LANGUAGE FRENCH - FRANCE ADD</a>

In this tab, you can see:

- the **Content Permission**



**Note: Content Manager** is not associated with any language.

- the **Language** relevant for each permission. For the **Editor** and **Approver** permissions, the language is listed.
- the **Role** assigned to each permission. The **roles** will be links if you are a **Project Manager** or an **Administrator**.





**Note:**

- The **Roles** list will have links only if these roles are invited to the project and exists in WebCenter.
- If you do not see **Roles** as links, check if you are looking at the latest version of the document. In older versions, this data will be read-only.

- the **Assignees** (Groups or Users) assigned to a particular **role** with a certain permission.

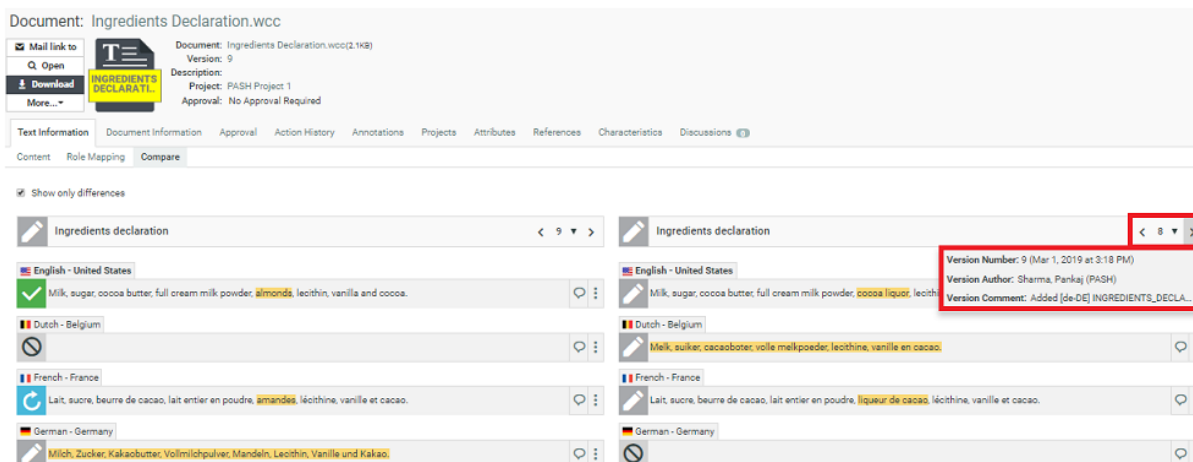
### Compare Tab

You can now compare different versions of the same document in the Compare tab in read only mode. This allows you to view the differences between two selected versions of the same text content document.

You can navigate from **Document > Text Information > Compare** . This tab is divided into two parts where, two versions of the text content document is shown side by side. By default, left side block is loaded with the current version of the document and the right side block is loaded with previous version with clear indication of differences.



**Note:** If the document has only one version available, then the right side block is empty.



A drop-down is provided on the header of the both blocks to change the version of the document to compare. Navigation arrows are provided to go to the next or previous versions of the document. Hovering on the drop-down option or on the navigation arrows displays the Version Number along with the modification date, Version Author, and Version Comment in a pop up window.

You can expand to view the content properties by clicking on the header and both versions are shown simultaneously.

Selecting **Show only differences** option shows only the languages which have some difference in the text content and languages not having any differences are hidden.

When a language is not added in one of the compared version and is available in the other version, then the language widget is shown as not added.



**Note:** Compare is done only on the content of the two versions of the document and not on the settings.

## Managing Text Permissions

Ensure that:

- you have invited the right **Roles** in your **Project** or **Template** with the Text document.
- you have added the Master and Translation Languages to the Project's Attribute Category to configure Language specific Editor and Approver permissions. It is important to do role mapping in a *smart way*.
- you have enabled the right *Preferences*.

If you are a **Project Manager / Admin**, you can manage and assign content permissions.



**Note:**

A user without any of these permissions can only view (depending on the view permissions) the text content documents.

1. To manage Permissions, go to the **Document details > Text Information > Permissions**.

When you click on a Text Content Document Type icon, the **Document Details** will have the **Text Information** tab with the following sub-tabs:

- **Content**
- **Permissions**
- **Compare**

2. The **Manage Permissions** is only applicable when document is using **Local Permission**.
3. The checkbox **Use Local Permissions** is shown only when the Global permissions configuration is set to **Allow both global and local permissions**.


Text Information | Document Information | Approval | Action History | Annotations | Projects | Shared Link | Attributes

Content | **Permissions** | Compare

### Local Permissions

The document is configured to override the global permissions and use local permissions.

**Manage Permissions**

Content Permission 	Language	Role
CONTENT MANAGER		 CONTENT MANAGER
EDITOR	 Dutch - Belgium	 EDITOR
EDITOR	 French - France	 EDITOR
APPROVER	 Dutch - Belgium	 APPROVER
APPROVER	 French - France	 APPROVER
ADD LANGUAGE	 Dutch - Belgium	 ADD LANGUAGE
ADD LANGUAGE	 French - France	 ADD LANGUAGE

4. Choose the **Content Permission** from the drop-down listing:

- **Content Manager**
- **Editor**
- **Approver**
- **Add Language**

5. For the Content Managers permission, define the appropriate **Role**.

Read about the permissions below:

**1. CONTENT MANAGER:**

The WebCenter Role with this permission facilitates the entire content management process to ensure accuracy and compliance. For example, the role Marketing could have this permission where the Marketing has the responsibility of the packaging content. The Content Manager will manage the Master and Translated statements.



**Note:** The Content Manager Role is not associated with any specific language.

This role will manage all the permissions and the settings for the current document.



**Note:** Content Manager Role cannot act as an Editor or Approver unless this permission is granted to the same role.

## 2. EDITOR

The Content Manager typically assigns this right to the dedicated roles who will create, edit, revise or translate the text. This can be assigned per language.

An Editor Role (for example, a Translator) can edit when a document is in the **Draft** state, not in **Signed-Off** or **Pending Sign-off** state.

If the Editor also has **Approver** permission, then the documents are directly moved to **Approved** state instead of pending sign off.



### **Note:**







































- The **Content Manager Role** has to configure the list of translation languages to make use of multiple language based **Editor** permissions.
- You can configure **Roles** for all languages to which the content should be translated and grant them the **Editor** permission.

**3. APPROVER:** A **Role** with this permission can approve the text content. This permission can also be configured per language. The approver puts the Text Statement to **Signed-Off** or **Rejected** state.

## 4. ADD LANGUAGE:

Any user with **Add Language** permission can add language to a text or table content document. The users can be assigned with permission to add only specific languages.

**Manage Permissions**

Content Permission 	Language	Role	Assignee(s)
CONTENT MANAGER		 PCM_CONTENT MANAGER	 MRJN
EDITOR	 English - International	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 English - United States	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 Dutch - Belgium	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 French - France	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 English - International	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 English - United States	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 Dutch - Belgium	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 French - France	 PCM_CONTENT MANAGER	 MRJN
ADD LANGUAGE	 English - International	 PCM_LEGAL	 MRJN  MRJN_USR2
ADD LANGUAGE	 Dutch - Belgium	 PCM_TECHNICAL	 MRJN  MRJN_USR3
ADD LANGUAGE	 French - France	 PCM_CONTENT MANAGER	 MRJN



**Note:** You may choose to give more than one permission to a Role. For example, the Content Manager can have Editor and Add Language permissions as well.





















6. Define the **Editor** permission and assign it to a role. Select the corresponding **Language** from the drop-down.

You can automatically create **Editor** and **Approver** Roles for all languages in one go. Read about [Smart Role Naming](#) on page 527. To do this for the editor permission:

- a) Ensure that the **Admin** preference section has the right Prefixes. Read [here](#).
- b) Next to the **Editor** permission, select **All Other Languages**.



Manage Permissions

Content Permission 	Language	Role
EDITOR	 English - International	 LANGUAGE ENGLISH - INTERNATIONAL EDITOR
EDITOR	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM EDITOR
EDITOR	 French - France	 LANGUAGE FRENCH - FRANCE EDITOR
APPROVER	 English - International	 <b>Prefix and Suffix in Role Names</b>  APPROVER
APPROVER	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM APPROVER
APPROVER	 French - France	 LANGUAGE FRENCH - FRANCE APPROVER
ADD LANGUAGE	 English - International	 LANGUAGE ENGLISH - INTERNATIONAL ADD
ADD LANGUAGE	 Dutch - Belgium	 LANGUAGE DUTCH - BELGIUM ADD
ADD LANGUAGE	 French - France	 LANGUAGE FRENCH - FRANCE ADD

The names of the Roles will have the specified **prefix** and **Suffix** (In the example screenshot, Language Editor) and the respective language code.

### Adding and Deleting Languages in a Text Content Document


Go to **Projects > Attributes** page and assign the Master and Translation Language Attributes. This will make them available in your Project's text documents.



In the **Text Content Document Details > Text Content** tab, you can view and add / delete the Master Text Language and Translation Language(s).


It is also possible to view, add and delete these Languages in the [Copy sheet](#) view. Read also: [Creating a Copy Sheet](#) on page 398




**Note:** You can add or delete this only if you have **Content Manager** or **Add Language** Permissions.

- To add a language, hover over the blurred flag indicators and click **+** on the flag image to add a language. The languages that are added in the list have clear flags. Only four of the selected Translation Languages (Flags) are displayed. Click on the ellipsis ... to view the expanded list of the other selected languages and  to collapse the list. Languages are displayed in the order of the Language Index specified in the language list irrespective of the sequence it has been added.
- Hover over and click **x** on the flag image to delete a language. You can add or delete multiple languages in one go by clicking multiple language flags.
- In the basic view, to delete a language of the text content from either the master languages or the translation languages, click on ellipsis

After deleting a language, you get  icon to add the language again in basic view. Similarly in attributes, if the translation languages is not added to the text content, then  is displayed. You can also add back the language by clicking twice on the widget.




- To delete a language that is not present in the Project Attributes, and is available in a text document, click .




The language is marked for deletion in the element status. Click  to revert the action.

Ensure that you save the modifications.

Content Role Mapping Compare

---

 Packaging claim M:  T: 

Element Type	Packaging claim	Master Language	 English - International
Approval Setup	All of Role - One per Group	Translation Language	 Dutch - Belgium  French - Canada
Text Type	SmartName		
SmartText Search	PCM Text Content Library Search		
	<input type="checkbox"/> Enable Auto Suggestion <input type="checkbox"/> Allow only Single SmartText <input type="checkbox"/> Make this an Invariant Document <input checked="" type="checkbox"/> Allow Inherit Content <input checked="" type="checkbox"/> Inherit Only SmartText		
Inherit Content from	English - International		
Character Limit	100		

Adding any of the available languages is possible based on permissions on all text content in the page including documents that are from other than current project. Similarly, it is possible to remove the language when it is added recently but not saved.

The following conditions apply when you delete Master Text Languages:



**Note:**

- If only one Master Text Language is present, it cannot be deleted.
- If two or more Signed Off Master Text Languages are present, then any one of them can be deleted. But if there is only one Signed Off, that language cannot be deleted.
- If none of the Master Text Languages is Signed Off, then any of them can be deleted.
- A language can be deleted even if the Text Content document is linked with multiple projects.

## Editing Text Statements and Starting Approval

### Editing Content

With the Editor permission:

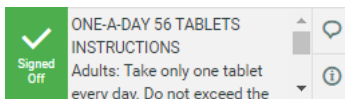
- You can edit a document in Draft state.
- Auto-Approve. If you are assigned the role of an Editor and an Approver, you can approve the content you created immediately.



### Approving after Editing (Auto- Approval)

For example, Marketing can create and approve Master Text of certain statements. Essentially, you can skip **Start Approval** and **Approve** actions. To do auto-approve:

- Hover over **Draft** state next to the Text widget. You see options to **Approve** or **Start Approval**.
- Approve and **Save**. The document status is now **Signed Off**.



**Note:**

If saving fails, check if:

- your Editor permission is revoked.
- there is any conflict from another user regarding content update.

You can **Start Approval** by clicking  (even after you auto-approve).

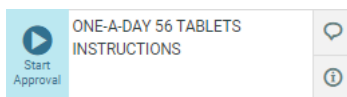


**Note:**

- You cannot **Reject**, when a document is set for Auto approval.
- You can auto-approve from all the pages where you have the Text widget (Text Document Details, Task Execution Page, Document Attribute Category, Project Attribute Category, Project Creation Page and Viewer ).

### Starting Approval or Reverting to Draft

Hover over **Draft** status to view and click **Start Approval** to kick start the approval process.



To put the status back to **Draft**, hover and click the **Revert** button.

When you save, the status changes to **Draft**.



**Note:** After starting the approval process, users with Editor permission can revert the status back to **Draft**.

On clicking on the Reject button, the element will be marked for reject and the Approve/Reject/ Revert to Draft button will disappear and replaced with a Revert button. Content won't be editable, even if user has editor permission for this statement.

### Approval Information

You can click on the **Approval Info** icon for a Text Content element, and it opens a pop-up which displays approval cycle information.

Master Text

English - United States

REFRESHMENT WITH ZINC & CHROMIUM

Click to get the pop up window

Approval Info

Approval Overview for English - International		
<b>Contact information</b> One of Role		
Revert to Draft	ADMIN, (ADMIN)	Jul 17, 2018 at 11:40
Start Approval	ADMIN, (ADMIN)	Jul 18, 2018 at 15:14
Approved	ADMIN, (ADMIN)	Jul 18, 2018 at 15:14

This pop-up window provides information on

- Language on the header
- Element type
- Approval type
- Approval Information along with user details and date of the action.

## Approving or Rejecting Text Statements

### Approving Text Content Statements

To **Sign-off** text statements (as an Approver), hover over the **Pending SignOff** icon next to the Text statement and **Approve**. When you save, the status changes to **Signed Off** or **Pending SignOff (You Approved)** when there are more approvers.

	ONE-A-DAY 56 TABLETS	
	INSTRUCTIONS Adults: Take only one tablet every day	

You can revert your action (before you **Save**) by clicking **Revert** .






**Note:** Once **Signed Off**, you cannot makes changes to the text content or the text status. Translation languages can be edited even if the master language is not yet signed off.

### Rejecting Text Content Statements

To **Reject**, hover and click . When you save, the status changes to **SignOff Rejected**.

If there are more approvers, status remains **Pending SignOff (You Rejected)** until all Approvers approve or reject.















	<p>ONE-A-DAY 56 TABLETS INSTRUCTIONS Adults: Take only one tablet every day</p>	 
---	---	--



**Note:**

If the Admin user has enabled **Required password for Approvals/ Rejections** in **Preferences**, your **Approve/Reject** actions requires a password.

**Other tools**

Use this	To...						
	<b>Inherit Content For</b>						
	<p>View the <b>Approval Overview</b>. It will show</p> <ul style="list-style-type: none"> <li>• The last updated state along with the date of change done with the user associated with the change</li> <li>• Element type and Approval Setup ( All of Role, or One of Role or Default )</li> <li>• Language for which approval was done</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p style="font-size: small;">Approval Overview for English - United States <span style="float: right;">×</span></p> <p style="font-size: x-small; margin-top: 5px;"> <span style="color: red;">■</span> Packaging claim  <span style="color: blue;">■</span> Default                 </p> <table style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td style="width: 30%;"> Start Approval</td> <td style="width: 30%;">Bakshi, Sourita (SOBK)</td> <td style="width: 40%; text-align: right;">Nov 30, 2018 at 12:50</td> </tr> <tr> <td> Approved</td> <td>Bakshi, Sourita (SOBK) </td> <td style="text-align: right;">Nov 30, 2018 at 12:50</td> </tr> </table> </div>	 Start Approval	Bakshi, Sourita (SOBK)	Nov 30, 2018 at 12:50	 Approved	Bakshi, Sourita (SOBK) 	Nov 30, 2018 at 12:50
 Start Approval	Bakshi, Sourita (SOBK)	Nov 30, 2018 at 12:50					
 Approved	Bakshi, Sourita (SOBK) 	Nov 30, 2018 at 12:50					
	View the comments associated with a text statement. It allows you to view earlier comments and also add a new comment.						
	<p>Adds a new comment. This button indicates that there are no comments. Clicking it enables you to add comments, to hide and show existing comments.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p style="font-size: small;"> <b>Note:</b> In case the user has delegated the tasks, any comment updated by the delegate will mention the same.</p> </div>						

### 4.16.3. Text Document Actions

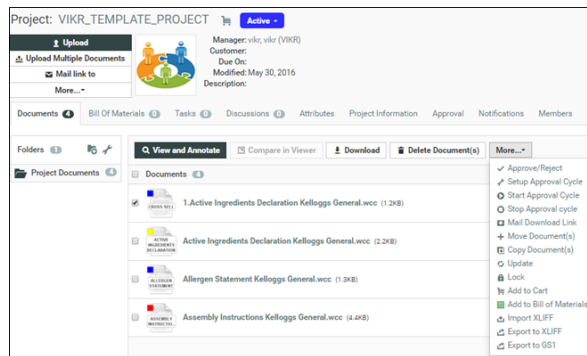
You have additional Project Documents Actions for Text Documents. These actions allow you to

- Export text documents
- Import XLIFF files
- Copy documents with their Approval State

## Importing and Exporting Text Documents

### Export and Import XLIFF

You can export your text documents to be translated into XLIFF files. Once translated, import the XLIFF files back to WebCenter.



How to **Export to XLIFF** from a Project:

- Select the Documents and click **Export to XLIFF** in the **Actions** menu or bar.



**Note:** You may have these actions in the **More** drop down menu depending on your menu configuration.

- In the resulting **Export to XLIFF** pop-up, select **Source Language** and **Target Language** and click **Download**.
- There are other options which can be selected.

**Export to XLIFF**
✕

**Source Language \***

English - United States ▾

**Target Language \***

--select language-- ▾

**Export Statement(s) only if the Master is signed off**

**Export Statement(s) only if Target language is specified in the Document**

**Export Statement(s) only if Target language is not signed off**

Cancel

Download

- **Export Statement(s) only if the Master is signed off** By default this option is checked. When checked all the text statements which are signed off are exported and other statements are ignored.
- **Export Statement(s) only if Target language is specified in the Document** By default this option is unchecked. When checked only the text statements that has translations are added and rest of the text statements are not exported.
- **Export Statement(s) only if Target language is not signed off** By default this option is unchecked. When checked, only that statement for which translation language is not signed off is added to xliiff file.



**Note:** If there are no text content documents to export to XLIFF, then a warning message is displayed that **No text content document(s) available to Export to XLIFF**

The downloaded file contains the approved source language text and an empty statement of the target language. Comments added in the text content document will be exported to XLIFF file.

To **Import XLIFF** files after translation:

- Click **Import XLIFF** in the **Actions** menu or bar. Click **Browse** to select the file for importing. The translated XLIFF file are added to the corresponding Text Content Document(s).
- When you import the XLIFF file, you can directly **Approve Translation** by enabling the option.
- You can view the **XLIFF Import Report** which gives the status of the import. If the import of the document(s) fails for any reason, then the reason is updated in the **Warnings** column.
- Any new comments given during translation can be viewed in the XLIFF Import Report.



**Note:** When you configure translation Workflows, you can use the [Export](#) and [Import](#) XLIFF content nodes.

## Exporting to GS1 XML

You can download a GS1 XML file containing all the **content documents (Dynamic Content)** including text, table and Artwork files. In the Artwork creation process, this GS1 XML file can be sent to the designer to place the content on the artwork in Adobe Illustrator with **Dynamic Content**. The **Dynamic Content** plug-in will match the placeholders in the artwork with the GS1 XML content.



**Note:** Any **User** with download permissions will be able to generate and download GS1 XML content.

Generate GS1 Export function supports below Text or Table Content and Artwork file types.

**To generate a GS1 XML**, follow the steps below:

- Go to the **Project** where the artwork or **Text content document(s)** or **Table document** is stored and select the document to be exported
- Select **Actions > Export to GS1**.
- If the selected artwork document contains reference property filter values either at the Document Attribute level or at the Project Attribute level, then the **Export to GS1** pop up window display the filters, from which you can select the **Reference Property** filters and **Languages** along with Locale. Reference property filters are used to filter the content to be downloaded to the XML format.
- Choose **Include Empty Content in GS1** to view all the elements in the table document else only elements with content are exported.
- The locale mapping values are pre-populated from the Document or Project attribute in the pop-up window, which holds unique values and these values are editable. When the locale mapping is not available in both the Project or in the Document attributes, then you can manually provide locale mapping and locale value will start with zero. Order of priority to pick locale value is Document attributes followed by the Project attributes.
- Specify the **Target Language** (one or more) in the **Export to GS1** pop-up window. The **Target Language** drop-down lists the master and translation languages specified in a project.



**Note:** If the project does not have specified language attributes, this drop-down then lists the system wide language lists (Master and Translation).

- Click **Download**.

The GS1 XML will contain the dynamic content of the specified **Target Language(s)** including:

- the approval **status**
- the **Instance Sequence** value



**Note:** If the instance sequence number is not available, then unique instance sequence is auto generated and exported. When a GS1 document, if the referenced documents have EXPECTED\_NUMBER\_OF\_OCCURRENCES (hard-coded) reference property, then the GS1 file will export this data for every dynamic element (Text Content, Table, Bar Code, Graphics). If this reference property is not available, then GS1 will have "1" as value for this field.

- The generated GS1 XML will include only content for which the user has read permission.

In 18.1 release we worked on "EXPECTED\_NUMBER\_OF\_OCCURRENCES" while exporting to GS1 XML. But in that documentation we didn't mention what should be the value (format) so while exporting, right value is exported.

The value of this field should be JSON format {"locale\_id": "value"} where locale\_id is the mapping integer to language. This locale\_id should be same as what is used when we export to GS1.

### How to get Attribute Category Report for Text Content

You can get a report of all the attributes present in a Project or in a Document Attribute Category. Attribute Categories report can be downloaded and accessed by any users who has the permission and the Admin user has configured the report and uploaded it. Read more about it [here](#).

Users who have access to the report, will have the report icon in the Attributes page of the Document or the Project. Labels defined to the attributes while creating are shown in this report for all attributes except the document reference type.



**Note:** If the attribute name is derived from SmartName or if internationalization is done for the attribute, then the label name is not considered and only the attribute name is shown.

While generating the report you can further filter the report based on the languages and the reference properties.

**Download Attribute Category** ✕

---

**Report**







**Languages**

**PCM Scope Flavour**

**PCM Scope Size**

**PCM Scope Output**

To know more about configuring Attribute Category report, read this [section](#) in the Admin Guide. An example Attribute Category report is shown below.

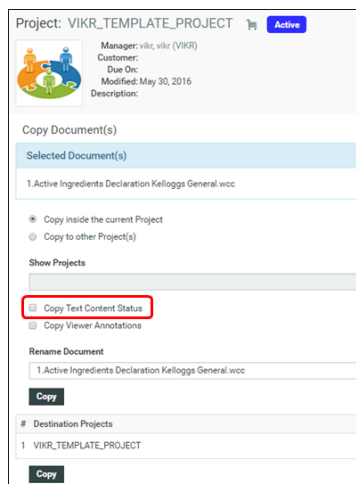
Master Text			
PCM Table Reference			
Document Name	Instance	Text	Last Modified
 Content_0001687.wtc Nutrition facts	1		
PCM Text Reference			
Document Name	Instance	Text	Last Modified
 Content_0001692.wcc Active ingredients declaration	958	Coconut And Berries	4/21/20 12:44 PM
 Content_0001673.wcc Additional product variant information	1	Create new <sup>document</sup> Update is being Done <b>Be careful, you'll have to join the Avengers</b>	5/8/20 7:23 PM
 Content_0001674.wcc Product features	1	ENERGIES DRINK ; IMMEDIATE SUSTAINED ENERGIES ; ENERGIES DRINK ENERGIES DRINK  ENERGIES DRINK	3/10/20 6:01 PM
 Content_0001675.wcc Net content statement	1	100gm	3/3/20 3:12 PM
 Content_0001676.wcc Packaging claim	1	ENERGY DRINK!!!	3/2/20 3:18 PM

### Copying a Document with Status

You can copy a Text Content Document to another project along with their status.

When you select one or more documents in a Project (Signed Off, Pending Sign off..) and choose **Copy Documents(s) Action**

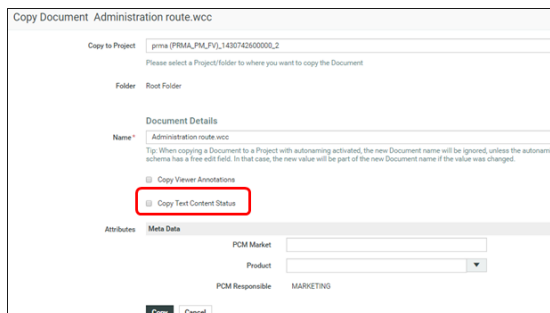
- You have the option to **Copy Text Content Status**. If you do not select this, the copied document will be in **Draft** state.





If you are copying from the Document Details Page, you can:

- Enable or disable the **Copy Text Content Status** option. If this is disabled, the copied document will be in **Draft** state.



If you are copying the Text Content Document in Attribute Category or Task execution Page, you can:

- Enable or disable the Copy **Text Content Status** option. If this is disabled, the copied document will be in **Draft** state.



**Note:** User must have the following permissions on the target folder for the copy to succeed:

- View and Download on the source folder
- Add
- Lock Document
- Change Properties

### Preformatted Text

When you copy a Smart Text type Text Content document from any deep copy configured document reference attribute, all the attributes are also copied. These Smart Text can be modified immediately by opening Smart Reference popover. The popover shows no Save button, but an OK button. To save click the document table Save button. The text changes will be reflected immediately in deeply copied smart references.

### Smart Reference language change effect on inheritance

When you change the language of a Smart Text in the Smart Reference popover which is being followed by other languages, it doesn't change the text of translation languages. Similarly when you change the language of Smart Text in the Smart Reference popover of a translation language it doesn't break the inheritance.

## 4.16.4. Nutrition Facts Tables

The **Nutrition Facts Table** (also known as the **nutrition information panel**, and other slight variations) is a highly regulated and required component in food and beverage packaging.

WebCenter Packaging Content Management offers a platform for data management of your nutrition facts, review in the context of artwork and reuse.

The solution will address the following:

- Complying with regulatory requirements. For example, FDA and USDA requirements in the USA and complex, multilingual Nutrition Facts Tables with predefined templates.
- The complexity of data management. SmartName can pull data from your data system for use in your nutrition fact tables.
- Established table rights facilitating the ownership at different stages. For example, who can fill in the data and who can approve, etc.
- Integration with Adobe Illustrator®
- Automation of Nutrition Facts Table creation. A content manager can pick a template which already has the SmartName mapping to point to the right data.
- Smart content reuse. You can use our template system to create different tables from the same pool of data. This is supported with a repository / library for your Table content.
- Support for a translation based or single language workflow.
- Export to and import from industry standard formats
- Approval workflow

### Table

A Table in WebCenter is a collection of statements. The table is treated like a single document with multiple statements. A Table has Content Permissions mapped to certain Roles, and specified Languages.

Tables are created based on a Templates (Document Templates). An administrator user can import Table Templates into your system. For example, an FDA approved template with pre-selected nutrition fact statements. The best practice would be that the content manager adapts a series of table templates with specified table statements and permissions and other users create tables based on these templates (and localize them).

### Table Statements

A **Table** contains statements with a text label and an editable field. You can define different approval processes for these statements. While the Table Templates contain a pre-determined set of such statements (based on FDA regulations, for example), it is possible to add and delete statements.

- **Element Type:** This indicates what the value of the element represents (e.g.: "Calories", "Vitamin A", "Saturated Fats", ...).



**Note:** Although it is possible to use your custom Types, the Templates come with GS1 nutrient element types.

- **Instance:** This will be a number indicating the numbered occurrence of a particular **Element Type** in the table. By default, it takes the value "1" except when there are multiple occurrences. If you have three daily values for every nutrient, their individual instances will be "1", "2" and "3".
- **State:** The statements can be in one of the following states: **Draft**, **Pending Signoff** and **Signed Off**. Users with corresponding permissions can change the state of each element.
- **Value:** The actual value of this element that will be displayed in the table (e.g. "230", "10 g", "2%", ...)
- **Static and Variable part:** The text part of the table is treated as static and the numeric fields as variables. This means that users won't be able to edit or adapt the design components of the layout. There are exceptions to this rule: for example, the "Serving Size" in "cups".

## Table Content Document in WebCenter

### Table Content Document

A Table in WebCenter is a collection of statements (either nutrition fact statements or text statements). The table is treated like a single document with multiple statements in it.

The WebCenter Table Content Document (.wtc) is an XML file that has the following features:

- Table Content that goes on in the Artwork. You can manage the values of the table.  
This includes both the master and the translated content of the table
- Approval states for individual Table statements as well as for the whole Table.
- Clearly defined ownership rights for the Table.
- Stores the Layout type as either Grid or Default. If the layout chosen is Grid, then the layout information additionally also captures the indentation, column span and Instance ID.
- Element Type for text statements within the table.
- Revisioning
- Download rules
- Attributes
- Document references from other documents. For example an artwork can refer to various text content documents.
- Can be streamed through a workflow

The screenshot displays the configuration interface for a Nutrition Facts table. The main configuration area is titled 'Nutrition facts' and includes the following settings:

- Approval Setup:** Default
- Type:** SmartName
- Make this Table Invariant:** (Table will have no translations.)
- Master Language:** English - United States
- Translation Language:** Finnish, French - France, German - Germany

Below these settings, there are sections for 'English - United States', 'Finnish', and 'French - France', each with a gear icon for further configuration. At the bottom, there are fields for 'Serving Per Container' and 'Serving Size', and a 'Calories' field.

The 'Preview' panel on the right shows a rendered Nutrition Facts label with the following table:

Nutrition Facts	
35 g Serving(s) per container	
<b>Serving size</b>	<b>1 Box</b>
<b>Amount Per Serving</b>	
<b>Calories</b>	<b>130cal</b>
<b>% Daily Value*</b>	
<b>Total Fat</b> 0g	0%
Saturated Fat 2g	0.01%
Trans Fat 0g	
<b>Sodium</b> 100mg	0.04%
<b>Total Carbohydrate</b> 29g	0.11%
Total Sugars 8g	
Incl. 15g Added Sugars	0.29%
<b>Protein</b> 4g	

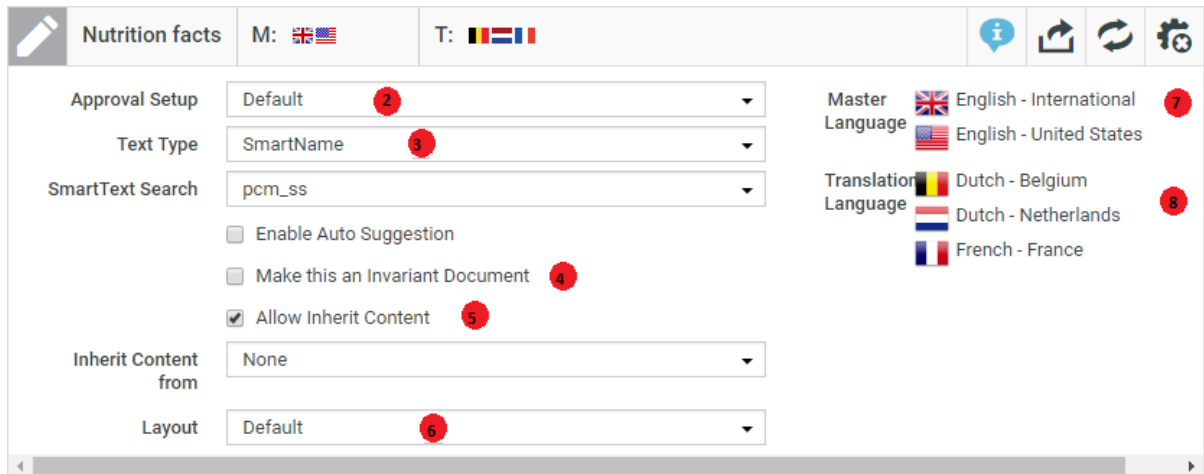
\* %DV = %Daily Value

1. [Table Properties Widget](#)
2. [Table Widget](#) on page 1024
3. [Preview](#)
4. Translation Widgets

### Table Properties

The content manager of the table can modify the table properties such as:

- add or delete translation languages
- make the table invariant
- choose the text type
- choose the layout of the table



Click the **Configure** icon to define the properties such as:

1. The tool bar with Configure icon and tools to:
  - **Resolve SmartName** (only if the table is of SmartName Type)
  - **Export to GS1** tool to export the table in GS1-XML format.
2. [Approval Setup](#)
3. **Type**: Select from **Simple**, **Rich Text** or **SmartName**. If you choose **Smart Name**, you can choose the **Reference Source** from the drop down.
4. Translations: Enable **Make this an Invariant Document** if translations are not required for the table.
5. Choose the **Allow Inherit Content** option to follow a particular language for all the elements in the table. You can either choose **None** where no language is selected by default or **Default** to follow the language chosen at the element level or one of the **Master language** in the project.
6. Choose **Layout** as Grid to customize the Language Layout view. If you have chosen the Grid Layout, you can perform the following actions in the language widget:
  - Define the number of columns and rows for a table
  - Drag and Drop support for rows and column
  - Add or delete rows



**Note:** If no option is chosen, default layout remains. When you export table content documents to GS1, layout information of the document like indentation, column span, and concatenation strategy are all included in the XML only when the layout chosen is grid.

7. **Master Language** is specified in the Project's attribute category.
8. **Translation Language** :This list will show the document's translation languages. You may have more languages to add from if they are present in the Project's Attribute Category. Add more languages by hovering and selecting the language.

**Text Approval**

The Packaging Content Management module offers separate approval processes for the Master and its translations. All the Approval information with regard to the Master and Translations stay within the Text or Table Content Document.



**Note:** This approval process is different from the regular WebCenter approval process.

The Approval process starts when a content Editor *starts approval* on a text statement or a table element.

When you have configured the right *permissions*, the users who has the **Approver** permission can perform the approval actions. To automate the approval, you can configure manual tasks in a workflow and assign them to the relevant **Roles**.

Once approved, the master and the translated text remain locked for the regular users.



**Note:** Only the Content Manager has the rights to change the text element to draft.

The text element can be in one of the following states:

- **Draft:** The initial state of the Text Document where the content is still being worked on.
- **Pending Sign-off:** When drafting is complete, and the status is ready for its approval cycle. An approver can review and approve or reject the document.
- **Signed-off:** When the approval cycle is completed and the content drafted in the document is 'Signed Off'.
- **Sign-off Rejected:** When the approval cycle is completed and the content drafted in the document is 'Rejected'.



**Note:** Approver will be requested to re- enter the password before approving or rejecting any text content document, provided the option is enabled by the Admin user.

**Approval Types**

Content Managers can set up the **Approval Type** for Text Content Documents. There are three Approval Types:

- **Default:** Only one member has to approve. For example, if the Approver permission is assigned to two Roles, only one member (from any Role) has to approve.
- **One of role:** One member of each Approver Roles (assignees) has to approve to complete the signing off. In case a Role is assigned to several members (groups or users), any Group member or user from that Role can approve.
- **All of Role – One per Group :** At least one member from each Role-Group has to approve. If there is an individual User, then he or she has to approve as well.

**Table Approval Status**

The approval process can be done at two levels: approval of each nutritional fact statement and as a composite table.

The status of the Table widgets (Master and Translation) depends on the approval state of the table statements. If all the elements are signed off but one is still in the **Draft** state, the widget status will also be **Draft**.

It is also possible to bulk approve all the statements within a particular language for both the Master and Translation languages. During bulk approval of statements, if the status is reverted before saving the change, previously signed off statements are not affected.



**Note:** This option is available only for users with Editor and Approver permissions.

See the approval states below:

1. Signed Off
2. Ready for Approval
3. Draft
4. Rejected

The **Approver** user can approve the entire table (per language) in one go. To do that, hover over the status icon and click **Approve**.

In the case of individual statements, the Approver can change the status to the next possible Approval State. For example, if a statement is in **Draft** state, the user can put it to **Ready for Approval**. Translation languages can be edited even if the master language is not yet signed off.



**Note:** If **Require Password for Approvals/rejections** option is enabled, then the Approver is asked to enter the password for approval or rejection. The same information is also updated in the **Action History**.

### Table Widget

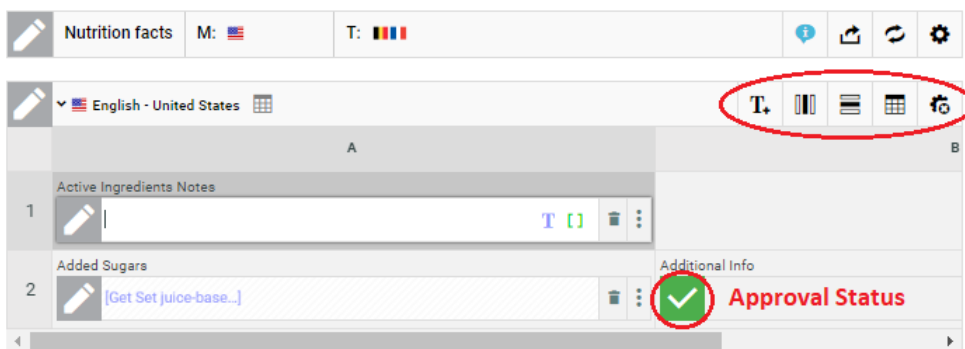
The Master Language Widget contains the Statements or actual table content. The Editor users can enter data in the specific fields.

If the table has translations, they will appear as widgets below the master table.

### Table Tools

In the **Configure** tool bar:

- you can add [Table Elements](#).
- change the [approval state](#) of a document. After the data entry, you can approve or start the approval process.




### Table Statements

The individual statements or elements can have it's own approval state. The statements have a name label(for example, serving size) and an editable field. Read about adding more elements in the table in: [Table Element Types](#) on page 1026.

### Language Widgets

If you have added Translation languages to the document, you will have translation widgets below the master table.

Click on the configure  icon and T+ to add table elements to your translation widgets. You can add all or some of the Table Elements present in the Master language.

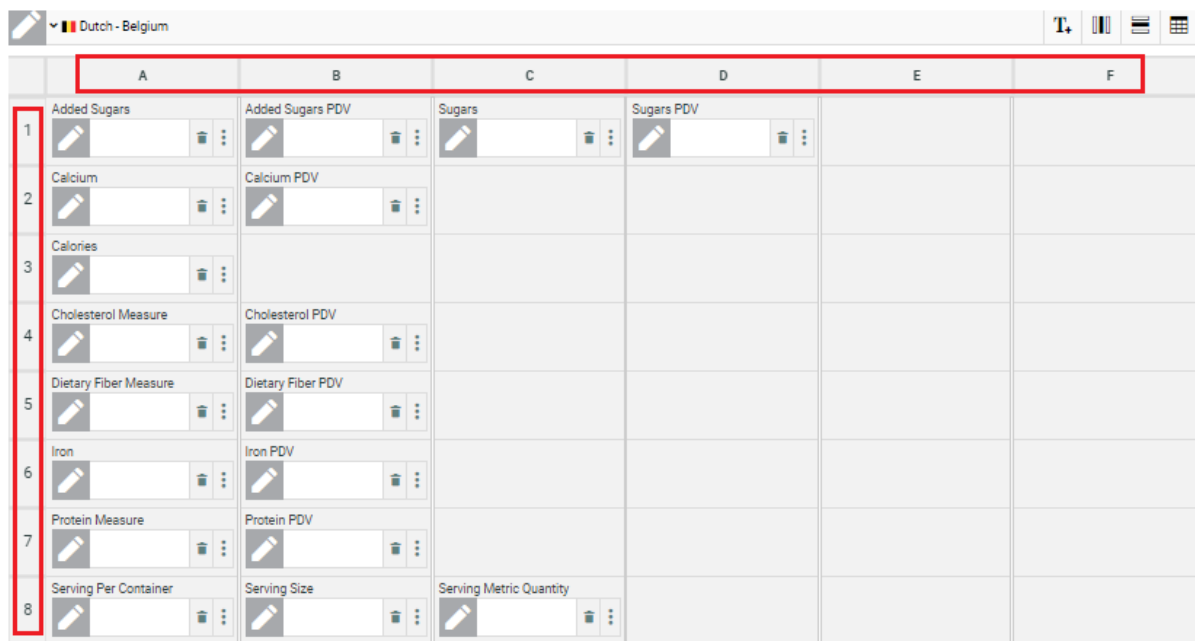
However, you cannot add elements that are not in the Master language. Each Language has it's own approval process and approval can be done at the language level or as individual elements.

**Content Manager** or a user with **Add Language** permission can add a empty Master or Translation languages widget into the Table Content document. This allows the Content Manager to plan the languages required for the document ahead, although the elements can be added later as per the requirements.

### Rows and Columns

#### Add or Remove columns / Rows in Grid Layout

You can easily add or delete Rows by clicking on any cell in the Grid layout by selecting the context menu for the table documents. This can be done only by the users who have the **Content Manager** or **Editor** permissions on the particular table document.



	A	B	C	D	E	F
1	Added Sugars	Added Sugars PDV	Sugars	Sugars PDV		
2	Calcium	Calcium PDV				
3	Calories					
4	Cholesterol Measure	Cholesterol PDV				
5	Dietary Fiber Measure	Dietary Fiber PDV				
6	Iron	Iron PDV				
7	Protein Measure	Protein PDV				
8	Serving Per Container	Serving Size	Serving Metric Quantity			

Rows can be added above or below the selected row, using the options available in the language header.

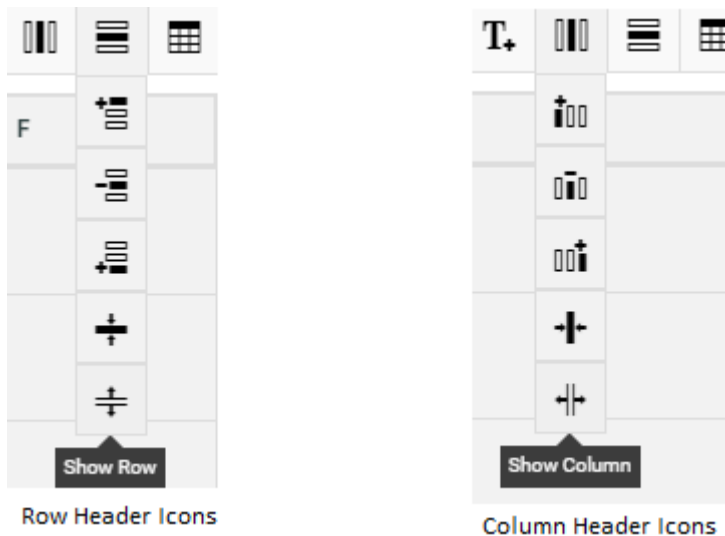
Similarly, the columns can also be added to the left or the right of the selected column using the options available in language header.

**Context Menu in Master Languages**

When the master language is configured, you can easily access the context menu by a simple right-click.

You can merge or split cells in a table document. When you want to merge any cell in the language section and if the next cell is empty, then the selected cell is merged with next cell.

If any widget is present in the next cell, then it shows an alert message. Similar functionality is followed inversely for split cells. You can add cell level indentation up to ten levels of indentation. Row (A, B, C....) and column (1, 2, 3...) headers cannot be indented. Indentation is shown in preview but not inside the cell. Indentation is applicable only for Grid Preview and is not available for the standard/default Preview.



**Reorder Table Rows and Columns**

Rows and columns in the Table document can be reordered by drag and drop. You can also re-size the width of a column by using the column re-size handler.

**Hide and Show Rows and Columns**

Rows in the Table document can be hidden by selecting any cell in the Row and selecting the **Hide Row** option in the language header. To show the hidden row, select the row and choose the **Show Row** option in the language header.

Show and Hide columns also function similarly by using the Show Columns or Hide columns in the language header.

**Layout configuration in Master Languages**

When there are multiple master languages in the table content document and if the layout is configured in one of the master Language, changes made impacts the other master languages as well.

**Table Element Types**

The individual Table statements can have a particular Element Type. The default Table Types have Element Types corresponding to the GS1 standard. However, you can add custom fields to suit your particular needs.

You can add multiple instances of one Type and it will be indicated with a suffix number.

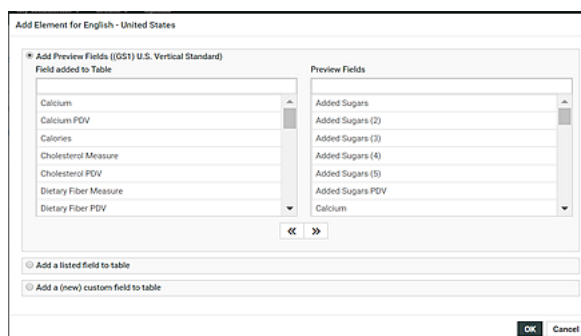




**Note:** You can add elements to the Master Table and the Translations have the same fields as the master. You cannot add custom types to the translations.

As a Content Manager, you can add or delete fields.

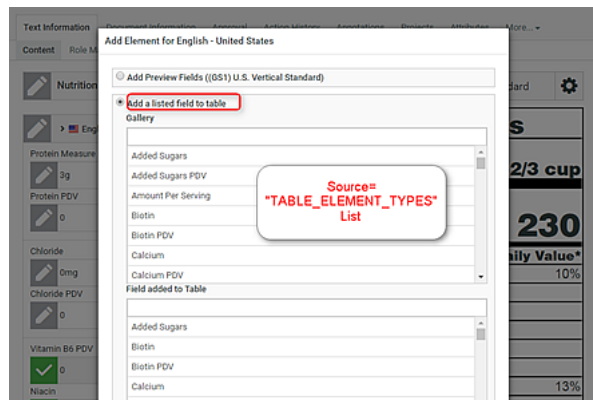
- Click on the configure icon.
- To add an Element Type, click T+
- When you have selected a particular Standard, the corresponding table element types are available. If your template is a Standard, you can add more from the **Add Preview Fields ...**section.



- You can choose from:

Options	Description
<b>Add Preview Fields</b>	To add Element Types of the particular Standard you selected, just click on the field. Use << to take all elements out of the table and use >> to add all fields to the table.
<b>Add a Listed Field</b>	To add one, click on that specific Field. Read <a href="#">below</a> .
<b>Add a custom field</b>	To add a custom Field. Read <a href="#">below</a> .

- You can store your GS1(or custom) Table Element Types in a [List](#) and use them in a Table.
  - a) Create a List with the Nutrition Fact Element Types with the name TABLE\_ELEMENT\_TYPES. These Types will be available to you in your Table Documents
  - b) To add one field from the List, select **Add a listed field**.  
The gallery lists all the types from the List.



- You can also add custom fields that are only relevant in one Table. To create such a field select **Add a custom field** option. You can use this option when you have to create Custom fields in some tables or when you are using the *Custom Templates* on page 1034.
  - a) Enter the **Element Type Code**, the code that will be used for a the added element type. This is used to highlight the field in the custom previews.
  - b) Also specify the **Instance Sequence** to identify each instance of the same element in a table.
  - c) Click **Add**.
- After modifying the table Elements, remember to click **OK** and to **Save** the table.



**Note:** The Element Types are used when Dynamic Content Tables get imported into WebCenter.

## Text Content / Table Ownership via Permissions

### Text Content Ownership

offers established ownership for different phases of the text and table creation and the approval process. You have four default content permissions:

- **Content Manager**
- **Editor**
- **Approver**
- **Add Language**

These permissions, when mapped to the WebCenter roles, allows their assignees to perform specific functions on the document.



**Note:**

- To configure these permissions, the project manager needs to assign at least the **Content Manager** rights to a relevant Role.  
For example, you can configure a **Role, Marketing** to have the **Content Manager** function.
- The Content Manager can then activate the **Editor, Approver** and **Add Language** permissions by assigning them to relevant WebCenter roles.  
If you do not assign a role to a specific permission, the specific permission will remain inactive for the document.
- The permissions are set at each text/table document (.wcc or .wtc ) level and will be passed on along with the document and its versions when copied or moved.
- It is not possible to add custom permissions.

**Four Types of Permissions**

**1. CONTENT MANAGER:**

The WebCenter Role with this permission facilitates the entire content management process to ensure accuracy and compliance. For example, the role Marketing could have this permission where the Marketing has the responsibility of the packaging content. The Content Manager will manage the Master and Translated statements.



**Note:** The Content Manager Role is not associated with any specific language.

This role will manage all the permissions and the settings for the current document.



**Note:** Content Manager Role cannot act as an Editor or Approver unless this permission is granted to the same role.

**2. EDITOR**

The Content Manager typically assigns this right to the dedicated roles who will create, edit, revise or translate the text. This can be assigned per language.

An Editor Role (for example, a Translator) can edit when a document is in the **Draft** state, not in **Signed-Off** or **Pending Sign-off** state.

If the Editor also has **Approver** permission, then the documents are directly moved to **Approved** state instead of pending sign off.



**Note:**







































- The **Content Manager Role** has to configure the list of translation languages to make use of multiple language based **Editor** permissions.
- You can configure **Roles** for all languages to which the content should be translated and grant them the **Editor** permission.

**3. APPROVER:** A **Role** with this permission can approve the text content. This permission can also be configured per language. The approver puts the Text Statement to **Signed-Off** or **Rejected** state.

**4. ADD LANGUAGE:**

Any user with **Add Language** permission can add language to a text or table content document. The users can be assigned with permission to add only specific languages.

**Manage Permissions**

Content Permission 	Language	Role	Assignee(s)
CONTENT MANAGER		 PCM_CONTENT MANAGER	 MRJN
EDITOR	 English - International	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 English - United States	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 Dutch - Belgium	 PCM_CONTENT MANAGER	 MRJN
EDITOR	 French - France	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 English - International	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 English - United States	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 Dutch - Belgium	 PCM_CONTENT MANAGER	 MRJN
APPROVER	 French - France	 PCM_CONTENT MANAGER	 MRJN
ADD LANGUAGE	 English - International	 PCM_LEGAL	 MRJN  MRJN_USR2
ADD LANGUAGE	 Dutch - Belgium	 PCM_TECHNICAL	 MRJN  MRJN_USR3
ADD LANGUAGE	 French - France	 PCM_CONTENT MANAGER	 MRJN

**\_REQUESTOR Role**

To create new Text/Table Documents, edit, approve or to reuse content during the Project Creation phase, you need to grant the relevant permissions to the **\_REQUESTOR** role. You can give these permissions in the libraries of Text/Table Document Templates, or Projects with approved Documents.

**Delegation of Approvals in Text Content and Tables**

An user can delegate his WebCenter tasks to another user. The delegated user can perform all actions on behalf of the delegator. When the delegate approves text or table content, the password validation is done on the delegate's password.

When a user has logged in on behalf of another user, and approves any text or table content, the same can be viewed by clicking **Approval Info** in the ellipsis. Alternatively, it can also be viewed in the **Document > Action History**.

**Nutrition Facts Preview**

The **Preview** lets you view the data being edited and it adapts according to the changes you make in the nutrition fact statements. You can see the preview of the table document.

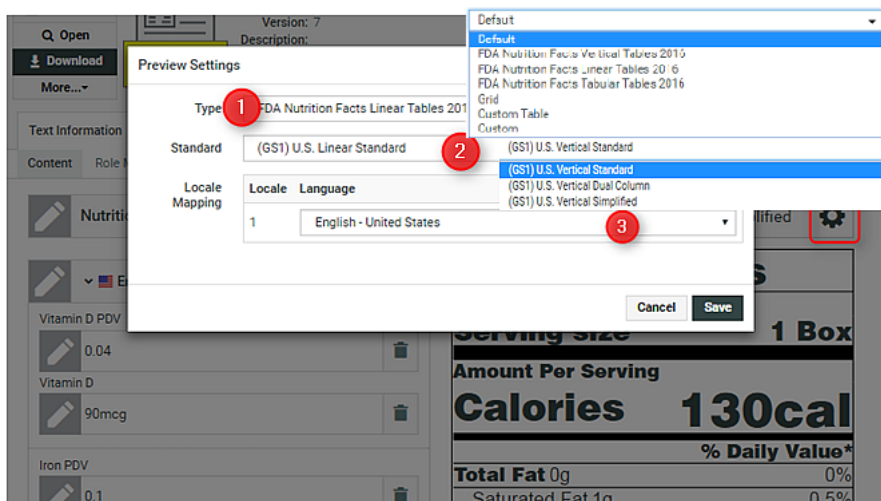


**Note:** The preview is an approximate representation of how it would appear in the artwork. It does not support editing the design elements.


### Configuring a Preview

The **Preview** is configurable and you can select from different Nutritional Facts table formats. To specify a Preview:

- click **Configure Preview**
- select a **Type**
- specify the **Standard**



1. Available preview templates (default and [custom](#)). The following templates are available by default:
  - FDA Nutrition Facts Tabular Tables 2016
  - FDA Nutrition Facts Linear Tables 2016
  - FDA Nutrition Facts Vertical Tables 2016
  - Grid
  - Custom Table
  - Default
2. Standards available for the selected template.
3. The language of the Preview (If you select French, your preview will be updated to show the French content)

You can also add or delete table elements to the master language table to update the document. Read in: [Table Element Types](#) on page 1026. Position Preview  icon allows you to configure, where the preview is displayed.



**Note:** To know more about Grid layout of the table, read here [Table Properties](#) on page 1022

### Download Preview

You can download the preview of a Nutritional Facts table in pdf format. PDF downloaded document contains all the mandatory elements and other elements which has values in the same format, font and styling as shown in the Preview.

If any custom fonts are used, then add the fonts also in the application server `pcm/TablePreviews/custom/fonts` folder location to view and download the preview.



**Note:** Download PDF option is not available if Default type is selected.

## Creating Tables

### Creating a Simple Table

You can create Tables for your artwork from scratch and store them in WebCenter. These tables can be exported in GS1-XML and use it to communicate between different systems during the artwork management workflow. You can involve various stakeholders through an approval process.

An intuitive preview section adjacent to the edit fields displays the data in the context of the table design. The changes you make are highlighted on the go to give you a very visual data entry process.



**Note:** You need Table Templates in the system to be able to create a new Table. An Administrator or Project Manager can [import Text or Table Document Templates](#) into the system.

- Import a Project or Template with Table Templates and adapt the settings. When users will create documents from this document template, they will inherit these settings.
  - a) Go to **Document Details > Text Information > Content** tab of the Template to modify the [Table Properties](#) on page 1022. You can specify the [Approval Type](#), Table Type, Languages etc.
  - b) In the **Role Mapping** tab, assign the [Content Permissions](#) to have Roles mapped as Editors, Approveres and Content Manager.



**Note:** Specify \_REQUESTOR as a Content Manager of the template if you want to create Tables during Project creation.

- c) Optionally, adapt the settings of a template to make it a SmartName based table. Read more in: [Creating Smart Tables](#) on page 1033
- To create new tables from these Templates, plug these as a Document Source in your Project Template. Follow the steps below:
  - a) In the Template's **Project Details** page, **Configure > Document Templates**.
  - b) Select **Project** or Template and select the Project your created in the first step and **Save**.
- Create an Attribute Category for your Template.
  - a) Add [Language Attributes](#) and restrict them to Language Lists.
  - b) You need Document Reference Attributes. Create and add them to this Category.
  - c) Configure the **Document Sources** and Rendering of this attribute.



**Tip:** Use a Saved Search configured to search for Table Templates as a document source for better user experience. You can, for example, add a Search Panel.

- Optionally, create and add workflows for approval and translation. You can also create a Library for your approved tables.

When creating a Project from this Template, the user can click **New** and select a **table template** from the Templates library to create new documents.

Template: PCM Artwork Library Update

Manager: Daemen, Karsten (KADA)  
 Customer:  
 Modified: Jan 30, 2017  
 Description: This template is used to create a project that will update or create a new artwork files in "PCM Artwork Library".

Documents | Bill Of Materials | Tasks | Characteristics | **Attributes** | Project Information | Approval | Notifications | Members | Security | Configure

Attributes in Category PCM Artwork Library Update ACat

**Artwork Languages**

Language Lists

Master language: English - United States  
 Translation language(s): --Please Select--

**Project Details**

Product Code  
 Project Date  
 Project Briefing

Show Rich Text Controls

Market List  
 Brand  
 Sub Brand  
 Project Types  
 Priority  
 Driver

**Base Artwork**

Document References with Sources

Reference Artwork  
 Nutritional Facts

Save | Export to JDF | Import from JDF

After creating a new simple table, you can enter the data either as a workflow step using the [Update Table Content](#) on page 958 node. The users (Editors) can also enter the values manually and send it through the approval process. You can export this table in [GS1 XML](#) format (either using an action or a workflow [step](#)) for merging it to the artwork in Illustrator with Dynamic Content.

### Creating Smart Tables

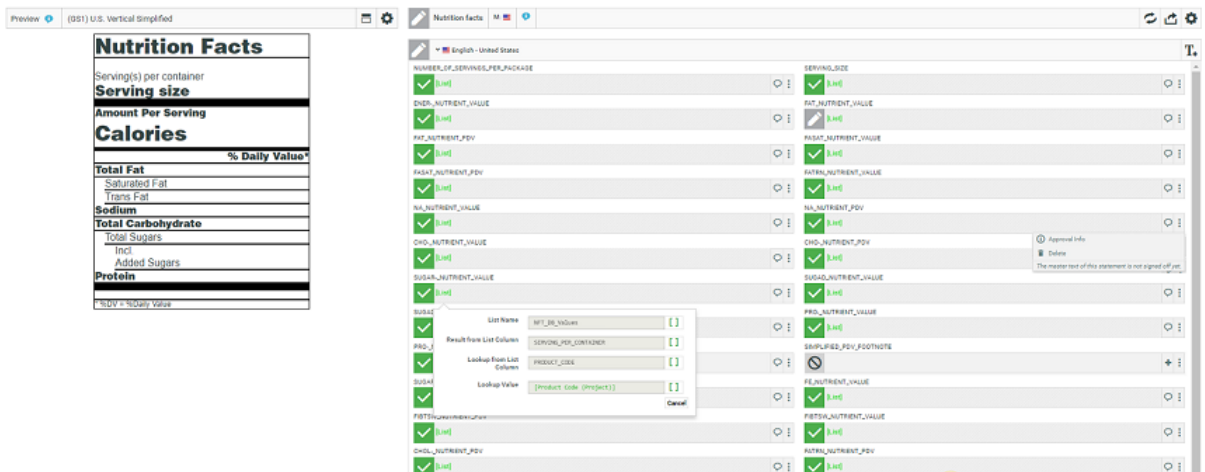
You can automate the data collection process required in creating or updating the nutrition facts tables. The process starts with a [Table Template](#) with dynamic data fields(SmartNames). These fields can be constructed to point to an Excel based List or any WebCenter SmartName such as Attributes.

SmartNames are resolved as actual entries in the context of a Project. This way, you can source the data instead of typing in the data manually. This approach helps you to avoid data entry errors in nutrition facts. Also, when you require corrections to any of the data fields, you can just edit a single data source instead of updating all related tables.

To set up a SmartName based Template, follow the steps below:

1. In the **Table Document Template > Text Content > Content** tab, open the [Table Properties](#) on page 1022 widget.
2. Specify the **Type** as **SmartName**.
3. Specify WebCenter SmartNames for each field from WebCenter list. For example, you can select Attributes as the SmartName.

The Content Manager can approve the SmartNames to lock these fields. It is also possible to delegate the approval to specific Roles based on permissions.



4. Plug the smart table as a document source in a Project template to create a new smart table. Read more from: [Creating a Simple Table](#) on page 1032. SmartText Search drop down lists the Text Saved search.

After creating a new Table in the context of a Project, the Content Manager can click **Resolve SmartNames** to update the table with numerical values.

In the example screenshot, the SmartNames are from a List based on the specified Product Code of the Project. You will also be able to see the original SmartNames when you hover over the values.



**Note:** If one or more element of the table content has unresolved Smart Content, you will not be able to approve the table nor the elements.

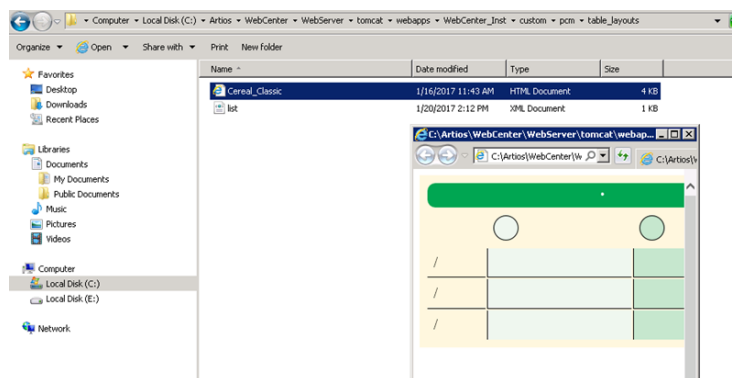
After the approval of the resolved table, the content remains locked. You can export this table as GS1 XML and finalize the table in Illustrator.

### Custom Templates

To install custom preview templates, follow the steps below.

1. Place the HTML templates in `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom\pcm\table_layouts` folder and also in `pcm/TablePreviews/custom/` folder of the application server. If any custom fonts are used, then add the fonts also in the application server `pcm/TablePreviews/custom/fonts` folder location.

Register the custom preview template in a "list.xml" in both the above mentioned folders.





- For each HTML Preview, create a `layout` entry in the `list.xml` file. This XML file has to be placed in the same folder as above.

See the format of the entry below:

```
<layouts>
...
<layout>
  <type>Name of the Table</type>
  <name>Type of the Table</name>
  <path>Path to the Preview Template</path>
</layout>
...
</layouts>
```



**Note:**

The **Type** and **Name** fields will be used in the user interface drop-downs. If a Type is not specified, it will be called "Custom".

Read more in: [Table Preview](#)

The custom templates will be available in the Preview selector and you can use the **Type** and **Name** fields in the interface to select a Preview.

## Workflow Tasks for Tables

### Import Dynamic Table

The **Import Dynamic Table** node extracts the **Tables** from your artwork(s) as **Table Content Documents**. You can configure this node to import these Documents with a link to specific **document reference attributes** and **table document templates**.



**Note:** You need an Attribute Category with Table document references as a pre-requisite to configure this node.

If there are multiple artworks coming into the documents, the node will iterate and extract tables from all of them.

#### Parameters- Configuration tab

- Specify the **Upload Folder** to store the extracted documents.
- Select the **Document Reference Attribute** for the table. Select the appropriate **document reference** from the drop-down listing all document references.
- Add Imported Table Documents to Output** . Check this if you want the document sent to the output pin.
- Reuse existing Table Documents**. The document version specified in the document reference will be reused to store the data instead of creating a new Table Document. If there are no matching tables in the system,new document will be created.

#### Document Template Tab

- Specify the corresponding **Document Template**. Select the Table Template (either simple or Smart) that corresponds to the incoming Table.

Select the **Document Template Project** at the top of this tab. Enter the name of the Project(s) where you have configured your table templates. You can either specify multiple project names with a "|" between them or provide SmartName which resolve to multiple project names. Read more in: [Creating a Simple Table](#) on page 1032

- **Add all Document Template elements** Check this to import all statements present in the document template.
- **Set values from Document Template.** Check this to take values from the Document Template for all matching statements. If there are no matching statements, the incoming values will be used in the table document.

**Parameters- Language Mapping tab**

You can map the **Locale ID** of the **Dynamic Table** to the corresponding language in WebCenter.

**Language Index:** When you create the first row, this field will have the value 1 by default. When you create more rows, they will be numbered serially.

- **Language:** Select the language from a list of languages. Or use a SmartName to dynamically assign the languages.



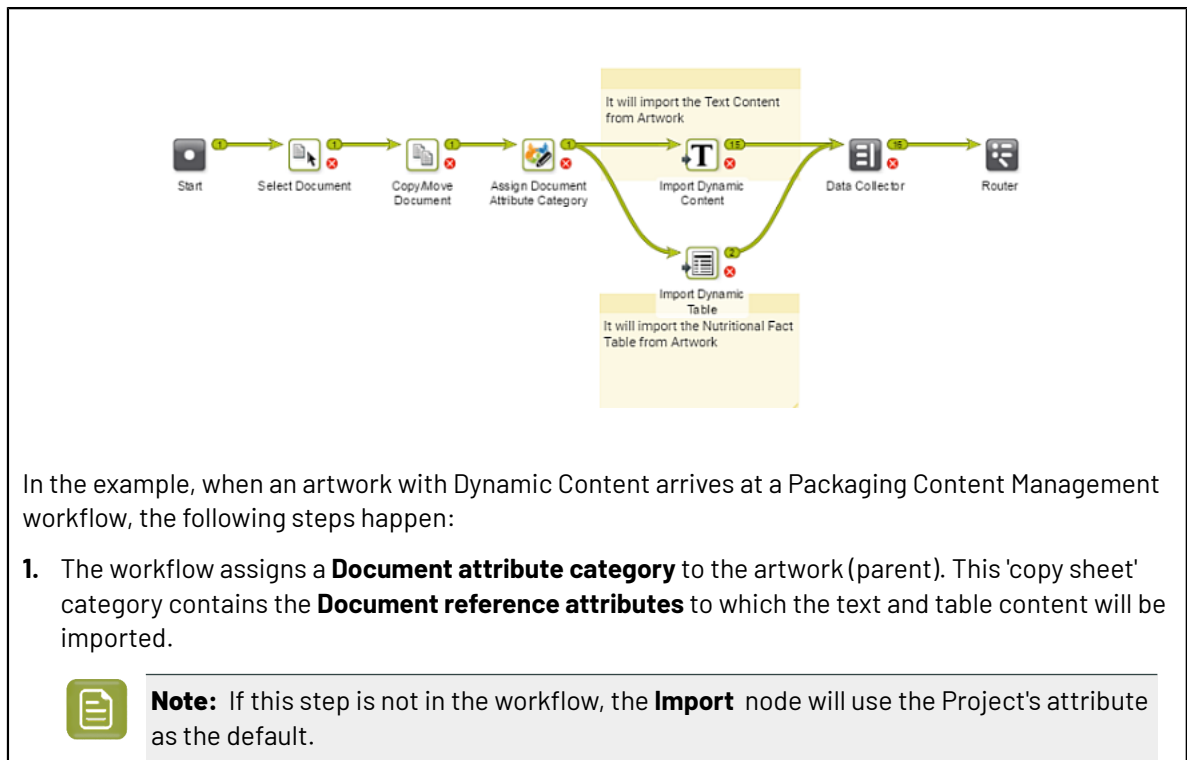
**Note:** By default, an imported table is imported as Translated language if it does not exist as a Master Language in the Project's language attribute.

For new Table documents created from this node, the master language table will be added in the **Draft** state, even if that language is not available on the artwork.



**Note:** If you do not specify language mapping for the imported Dynamic Content, the node will try to find the language in the [Lists](#) (Master and Translation languages).

-Read also: [Import Dynamic Text](#) on page 922.



In the example, when an artwork with Dynamic Content arrives at a Packaging Content Management workflow, the following steps happen:

1. The workflow assigns a **Document attribute category** to the artwork (parent). This 'copy sheet' category contains the **Document reference attributes** to which the text and table content will be imported.



**Note:** If this step is not in the workflow, the **Import** node will use the Project's attribute as the default.

The category contains the **Document reference attributes** for:

- text statements,
- and nutrition facts table

to serve as the copy sheet template.

2. The *Import Dynamic Text* on page 922 step maps the various Element Types to appropriate **document reference attributes** as configured.
3. The **Import Dynamic Table** extracts the table matching it to the document reference and the table document template.

After the extraction of the content, the workflow processes the content based on the requirements. You can, as in the example, update the incoming table and text using the workflow.

### Update Table Content

This workflow node allows you to specify or update Table properties and Table values. You can add:

- Role Mapping
- Languages
- Approval
- Add / Remove / update/ inherit elements and set values for nutritional facts elements

#### Settings

In this tab, specify the properties in the **Field** and the corresponding values in the SmartName supported **Value** field.

You can specify or update the following properties and their values in this tab:

- **Approval Setup:**
  - **Default:** Only one member has to approve. For example, if the Approver permission is assigned to two Roles, only one member (from any Role) has to approve.
  - **One of role:** One member of each Approver Roles (assignees) has to approve to complete the signing off. In case a Role is assigned to several members (groups or users), any Group member or user from that Role can approve.
  - **All of Role – One per Group :** At least one member from each Role-Group has to approve. If there is an individual User, then he or she has to approve as well.
- **Auto Suggestion:** If specified as `True`, the Document will suggest matching text when the user starts typing.



**Note:** This will work only when Saved Search is enabled.

- **Inherit Content From :**

You can choose to inherit content one of the options below

- **Default:** Will inherit the content from the language that is configured to follow in the Language List.
- **None:** Will not inherit content from any language in the workflow node. However the user can manually change the language at the element level in the document.

- **Master Languages:** Can choose any of the languages from the master language list.

By default **Disable** is chosen which will not allow Inherit content.

- **Inherit Only SmartText:** Specify this as `True` if the inheriting content should allow only SmartText.



**Note:** This is only applicable when 'Allow Inherit Content' is enabled.

- **Invariant :** Specify this as `True` if translations are not required for a particular Document.
- **SmartText Search:** A list is displayed containing all global Text Document searches available on the server.
- **Type:** Simple or Rich Text. If the Type changes from the existing type, the document status will become **Draft**.

### Values

This tab lets you add / remove /update table statements and their values. Use a single row per **element** or statement.

Update Table Document ✕

Settings   Role Mapping   **Values**   Approval

Element	Instance Sequence	Language	Action	Condition	Value
Serving Pe <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Add <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Serving Si <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Current va <input type="checkbox"/>	<input type="checkbox"/>
Calories <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Total Fat <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Total Fat <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Always <input type="checkbox"/>	<input type="checkbox"/>
Cholesterc <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Cholesterc <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Always <input type="checkbox"/>	<input type="checkbox"/>
Sodium Mea <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Current va <input type="checkbox"/>	[List] <input type="checkbox"/>
Sodium PDV <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Total Cart <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Total Cart <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Always <input type="checkbox"/>	<input type="checkbox"/>
Dietary Fi <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Dietary Fi <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Current va <input type="checkbox"/>	<input type="checkbox"/>
Sugars <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Sugars PDV <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Added Suga <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Add <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Added Suga <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Always <input type="checkbox"/>	<input type="checkbox"/>
Protein Me <input type="checkbox"/>	1 <input type="checkbox"/>	English - <input type="checkbox"/>	Update <input type="checkbox"/>	Always <input type="checkbox"/>	[List] <input type="checkbox"/>
Protein PC <input type="checkbox"/>	1 <input type="checkbox"/>	French - F <input type="checkbox"/>	Inherit <input type="checkbox"/>	Always <input type="checkbox"/>	<input type="checkbox"/>

Cancel   **OK**

- **Element** – Contains a list of all the table *Element Types* supported in WebCenter. There is a special field "[All Table Elements]" which will do bulk addition of master table elements into a translation language.

- **Instance Sequence** – Specify the instance sequence number. This number indicates how many occurrences of an Element is present in a Table. The default value is 1.
- **Language** – You can either select from the drop-down (listing all the languages present in the system) or use a SmartName in this field.  
If the specified SmartName resolves to multiple languages, then the specified configuration(from that row) will be applied to all of them.
- **Action:** Choose from **Add / Remove /Update/ Inherit** .
- **Condition** You can add a condition where the workflow node can inherit/add/update/remove elements. There may be a combinations of different conditions that may be given.

Condition	Action Possible
Always	Add, Remove, Update, Inherit
New Value is not empty	Add, Update, Inherit
Current value is empty/not available	Add, Update, Inherit
Current value is empty	Remove, Inherit
Current value is not available	Inherit
Current value is empty and new value is not empty	Add, Update

- **Value** – Field where you can specify the actual content. You can enter the data or use SmartNames.



**Tip:** Use List SmartNames(pointing to an Excel sheet based List) to provide content in a smart way.



**Note:** If you specified the action as **Add** for an existing value, the value is updated. If the element does not exist in the document, the element and the value will get added. However, if the action is **Update** and the element does not exist, the row is ignored.



**Note:** If you are updating a SmartName table using this node, the value from this node will replace the SmartName in the table.

### Approval Tab

This tab allows you to set **Approval Status** (per element, per instance and per language) via workflow. This allows you an automated way of approving the nutrition fact statements.



**Note:** You can use SmartNames in this step and if your SmartName points to a multi-value attribute, it will resolve to multiple values.

1. Select the **Element** or the statement.
2. Specify the **Instance Sequence** of the element.
3. Select **Language** – You can either select from the drop-down (listing all the languages present in the system) or use a SmartName in this field.
4. Specify the **Status**. You can choose from **Draft, Pending SignOff, SignOff Rejected** and **Signed Off**.

### Layout Tab

- **Remove empty rows from Grid Layout** is unchecked by default.

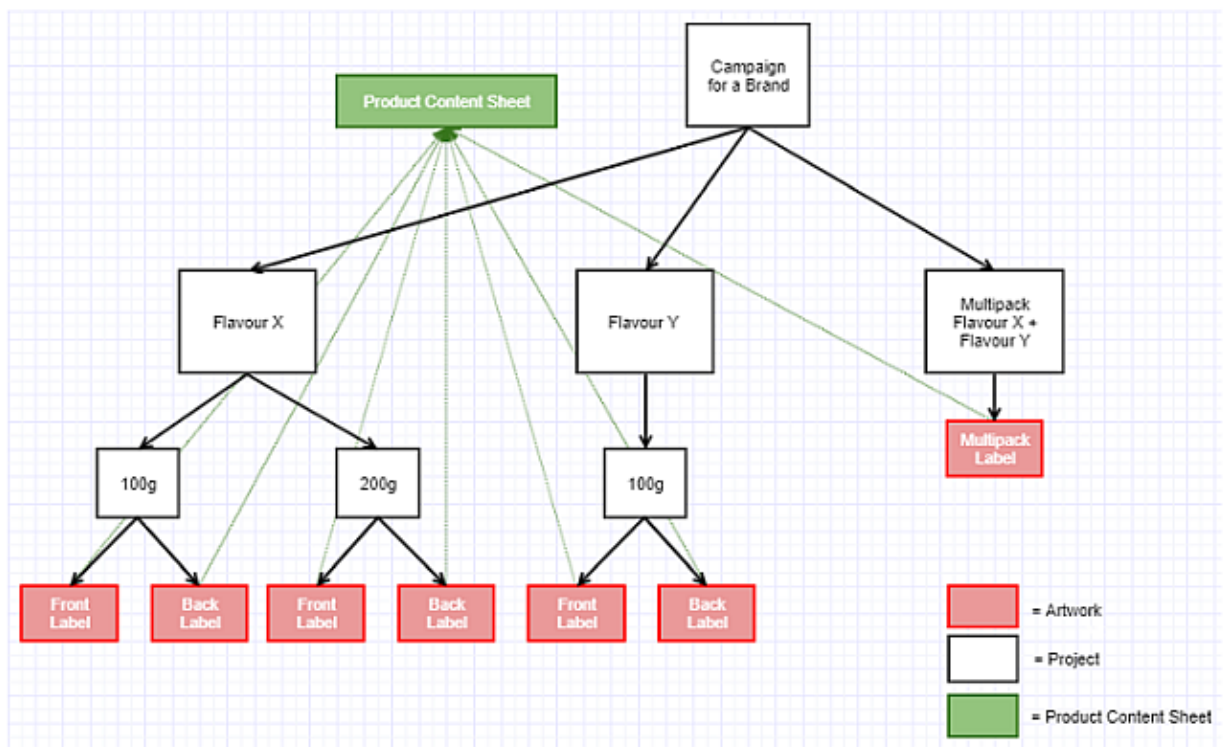
### 4.16.5. Product Content Sheet

Artwork design involves coordinating information from many different sources and stakeholders. There could be many possibilities for errors and hence it is important to keep all the assets related to a product saved at one place.

Product Content Sheet (PCS) or a copy sheet in simpler terms is a high level document that describes the contents of multiple related products. The PCS will be a repository of all the constituents that are going to be used on the products, like recipes, text, bar codes, symbols, images, nutritional tables and so on. PCS are stored in a file type called Components. Components are unique file which has no physical presence but acts a placeholder for all the documents related to the product. Read more about component file type here [Component File Type](#) on page 609.

With Product Content Sheet, you can:

- Specify the constituents, and also list the usage of these elements.



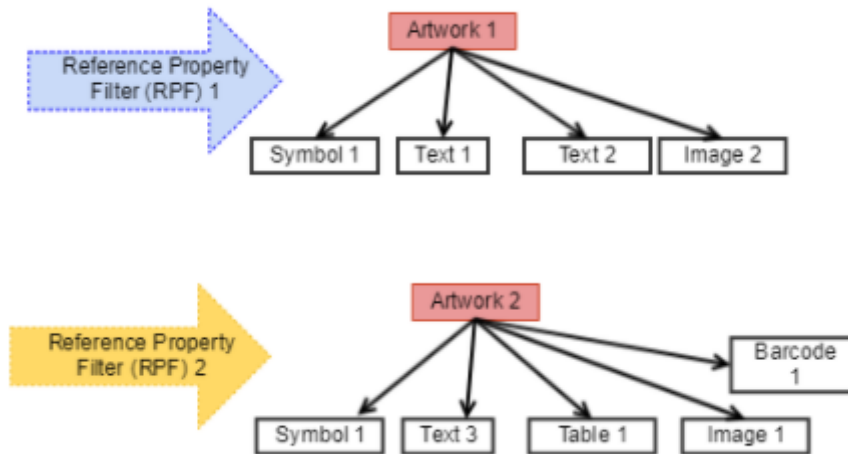
For example, to ensure that a certain recipe is only applicable to the Flavor X of the product or that a certain text statement should only be applicable for a certain serving size.

- Extract all the applicable content elements for a certain artwork, provided you specified the correct usage for the artwork.

For example, when creating the artwork for a multipack, you could specify the requirements as the contents of the PCS that are tagged with "Flavor X" and "Flavor Y". When creating the artwork for the enclosed single flavor product, you would specify that the artwork is only applicable for either the "Flavor X" or "Flavor Y".

#### Using Reference Property Filter in a Product Content Sheet

For example, Artwork 1 has the Reference Property Filter 1(RFP 1) which has some of the content extracted from Product Content Sheet. Similarly, Artwork 2 has the Reference Property Filter 2(RFP2) with some of the content extracted. You can notice that Symbol 1 has both RFP 1 and RFP 2 defined and hence are part of both the Artwork 1 and Artwork 2.



It is now possible to compare the Dynamic Contents in Artwork to actual content referenced to the Artwork in the **Content Widget** in the WebCenter Viewer. Details on how Artwork comparison works in Viewer [here](#).

Dashboards are also enabled now to view the content sheet and Dashboards can be configured to compare content sheets in them. More information on Content sheet in Dashboards can be found [here](#).

#### 4.16.6. Comparing Content Sheets in Dashboard

Dashboards are now enabled to view the content sheets and also compare two content sheets using **Content Sheet** block. You can compare any of the two different

- content sheets or
- versions of the same artworks or
- artworks which has the same attributes

Get Set.ai Version: 1 / Tropical blend sheet .wpc Version: 1

Delta	Position	Variant	Pack Type	English - United States
PCM Technical DocRef				
<b>CHANGED</b>	Top Back	Tropical Blend Coconut & Berry	Corrugated Box Carton	PACKAGING POWERED BY
<b>CHANGED</b>	Front Back Top	Tropical Blend Coconut & Berry	Carton Corrugated Box	EACH 200 mL SERVING CONTAINS:
<b>CHANGED</b>	Top Front	Coconut & Berry Tropical Blend Apple & Lime	Carton Corrugated Box	560 mL
PCM Legal DocRef				
<b>CHANGED</b>	Back	Tropical Blend Coconut & Berry	Carton Corrugated Box	2
<b>CHANGED</b>	Back	Tropical Blend Coconut & Berry	Carton Corrugated Box	1

When you choose to compare a document with another document, the **Delta** column shows the status whether the contents have **Changed** or **Removed** or **Added**.

The differences are shown specifically in each of the content for changes as follows

- **Text:** Color coded highlights on the exact location of the change on the text content itself for each of the language present.
- **Table:** Changes to the values of every element type is compared and status is shown.
- **Images:** Change of values to the EXTERNAL\_IMAGE\_PATH are shown.
- **Symbols:** Change of values to the SYMBOL\_NAME are shown.
- **Barcode:** Change of values to the BARCODE\_BASECODE and BARCODE\_COMPOSITE\_COMPONENT are shown.



**Note:** EXTERNAL\_IMAGE\_PATH, SYMBOL\_NAME, BARCODE\_BASECODE and BARCODE\_COMPOSITE\_COMPONENT are all hard coded attributes.

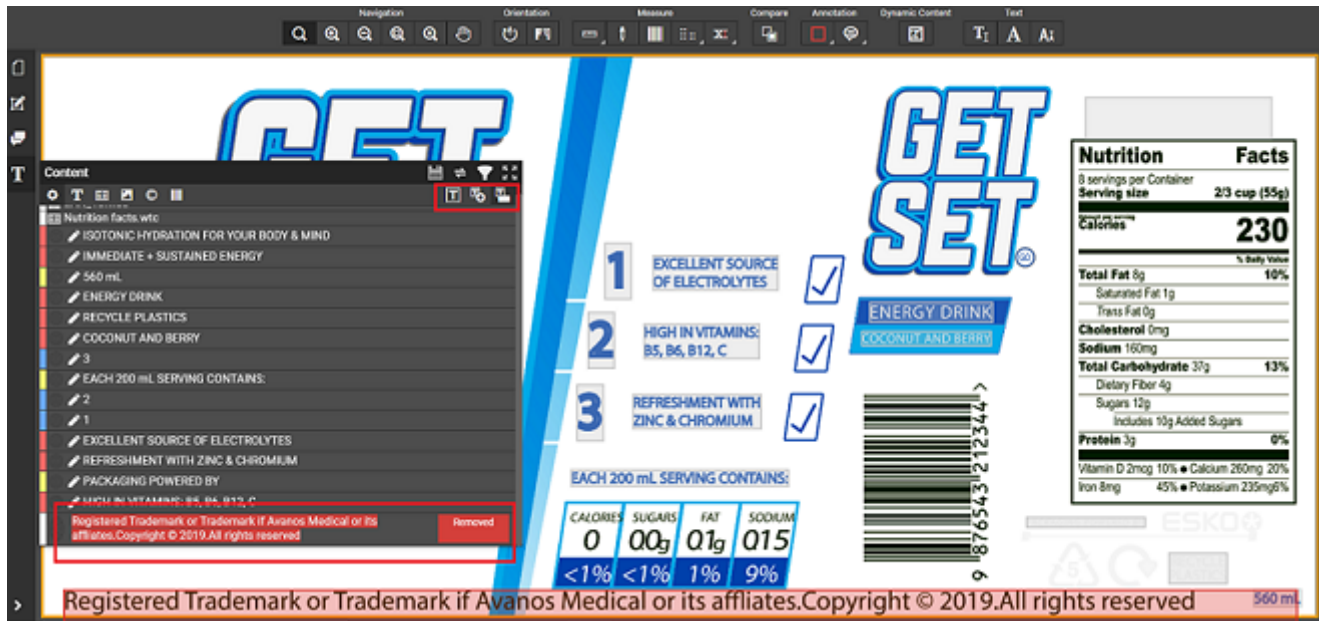
Apart from the changed and unchanged statuses, the content **Removed** from the Source document and content **Added** to the source document are shown specifically in the each of the tabs.

### 4.16.7. Compare Artwork with the requirements In Viewer

Many a times, there is a challenge to compare the requirement provided to the Artwork designers and the actual artwork that is created. The new features in the **Content Widget** in Viewer shows the comparison for Dynamic Contents in Artwork to actual content referenced to the Artwork in WebCenter, in a click of a button and bridges this gap.

The planned requirements are also visible in the viewer in the Content widget and can easily identify the Dynamic Content that are newly added or removed with color-coded visual feedback. This saves a lot of time and effort in performing this action manually.

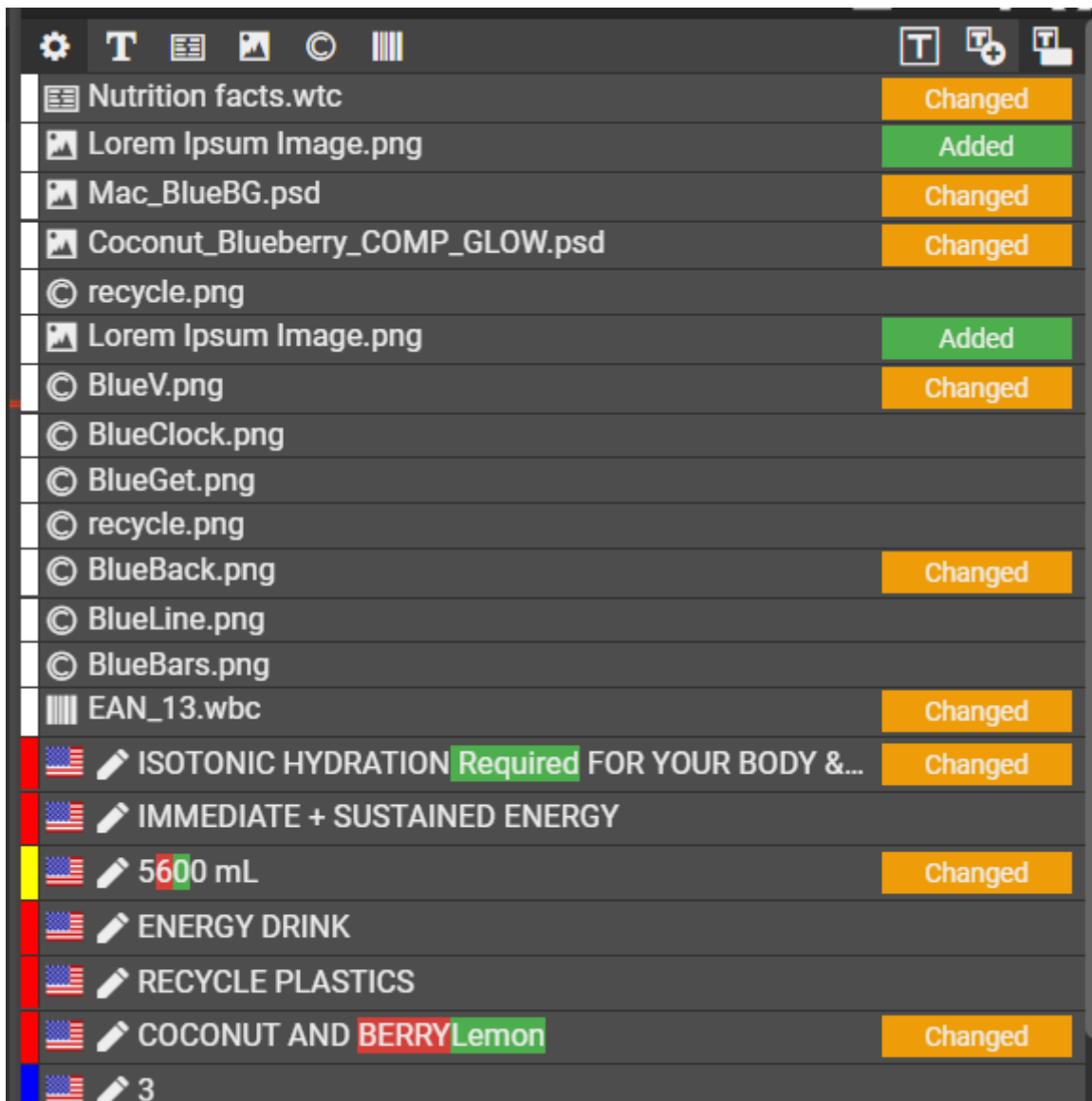




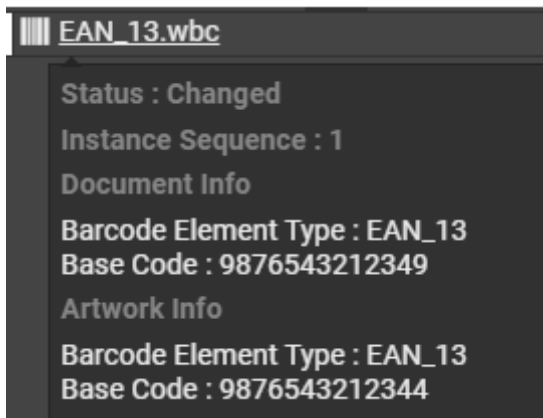
### Compare Mode in Text Content Widget

Three options are available to view the changes of the Dynamic Content in the Artwork with the Attribute Category namely

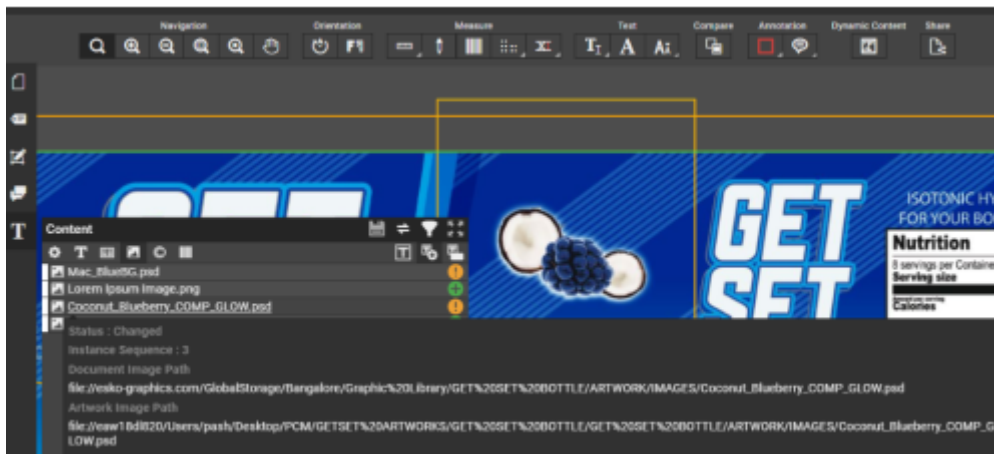
- **Collate Content:** Shows all the Dynamic content in the artwork and referenced contents. In this mode user can edit Text Statements.
- **Compare Content Icon:** Shows the compared status in icon if content has changed/added/removed.
- **Compare Content Label:** Shows the compared status in the label, if content has been changed or added or removed. You can view the changed status as shown in image below.



Hovering on the content in the Compare Content Icon or Compare Content Label mode, presents the detailed information about the compared document based on the Dynamic Content selected. For example, a Barcode document is shown below.



Below image shows an example of how Text Compare is viewed in the Viewer.



#### 4.16.8. Auto Translation

On a Document Table, the **Auto translation** button is available if the API key is configured. Click [here](#) for more information about how to configure the API key.

Auto Translation button is available only for translation languages and one master language is required to be present on that document table. On clicking the Auto Translation button on a translation language, all available text content documents on which you have edit rights for this particular language are translated.

To promote the concept of generic master text, an attribute of text type named "SOURCE\_MASTER\_TEXT\_LANGUAGE" is configured, which holds the description of expected master language for translation. If this attribute is not configured on the documents table, then the first master language is taken as source for the translation.

## 4.17. Structured Content In WebCenter

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### 4.17.1. Introduction to Structured Content

#### What is the Structured Content module?

The **Structured Content Management** module manages the creation of longer, more complex content streams as used in e.g. leaflets and 'Instruction For Use' (IFU) documents. As is the case for the Packaging Content Management (PCM) module, focus is on allowing for content creation/reuse and manageability through an approval process with unique functionality to provide impact analysis across all documents in the system.

#### What is Structured Content?

Structured Content is a standard way of managing documents which serve as the source for multiple assets (i.e. regulatory submission documents and printed leaflets). These kinds of documents usually contain similar sections of content across documents. The main benefit of Structured Content is that each document, figure, table, section, and phrase can be individually managed, controlled, and approved, all with usage tracked.

#### What is DITA?

Structured Content in WebCenter is based on **DITA**, an open standard for authoring and organizing technical documentation.

A Content or DITA topic (.dita file) is a re-usable rich, structured content, logically similar to a section in a document. By splitting off content in topics, modularity and re-use is ensured in the authoring and approval process.

A Content or DITA map (.ditamap file) allows collecting DITA topics (and other DITA maps) into a complete document. The DITA map groups elements and organizes topics into ordered hierarchies and relationships.

#### How can Structured Content be useful?

The DITA-based solution integrates seamlessly with images and symbols managed as separate documents in WebCenter. In addition to being used for leaflets, there are also regulatory submission documents which must contain all packaging content (QRD documents). As such, it is possible to insert packaging label text from the WebCenter PCM module directly in these structured documents, serving a similar purpose as a content sheet. This integration ensures full traceability and a single source of truth across all content types.

### 4.17.2. Getting started

Structured Content relies on some assets (category, attributes) in WebCenter and the functionality relies on some configured searches. Different configurations for the Structured Content setup can be done via Admin > Configuration > [Structured Content Configuration](#).

### Deployment Package

The Structured Content Configuration page checks whether mandatory assets are available. If all assets are installed, an info message is shown saying that the assets are available. If not, a message is displayed saying that required attributes are missing. You can then click **Check for Updates...** which takes you to the import dependencies page where you can easily check/import the assets.

The deployment package also includes non-required assets such as a Library Project, a Work in Progress Project Template,... The idea of the deployment package is to set up in a minimal yet working environment for Structured Content.

When a new project is created based on the "SC\_WORK IN PROGRESS TEMPLATE", a project creation form is shown where the user can upload a package (.zip) and/or when he can create new Structured Content documents from a template or from an existing Structured Content template. When a package is uploaded, a workflow will start which will unzip the package and store the Structured Content documents in the project. An approval cycle will be started and when approved, the workflow will move the documents to the Library Project.

On the project creation page you need to specify the language code on the DITA content you are importing. This is a fallback when the DITA XML would not have the xml:lang attribute filled in. When importing a package as a translation of existing content in the system, check the checkbox next to **"This project is a translation."**

### Configuration

Also see [Configure Structured Content](#) on page 440

Following searches can be configured:

- **Saved Search for Reusing Documents:** Saved Search that is used when a user wants to re-use a topic or map in the Structured Content editor. This search is accessed when the user clicks **Insert Existing Topic** within the editor.



**Note:** SmartNames can be used in this search and look at the parent map from where the existing topic was inserted.

- **Saved Search for New Documents:** Saved Search that is used then a user wants to add an image in the Structured Content editor.



**Note:** SmartNames can be used in this search and look at the parent map from where the existing topic was inserted.

- **Saved Search for Graphics:** Saved Search that is used when a user wants to add an image in the Structured Content editor. This option comes up when the user clicks the **Figure with image** or **Inline image** options within the editor.
- **Saved Search for Text Statements:** Saved Search that is used when a user wants to add label text in the Structured Content editor. This option comes up when the user clicks **Statement** from the Structure menu within the editor.
- **Saved Search for DITA Conrefs (Reuse Content):** Saved search that is used when a user wants to add a DITA conref (Reuse content) in the Structured Content editor .

Optionally you can configure dashboards on this page. See [Impact analysis of changes](#) on page 1057

## 4.17.3. Creating topics and maps

Topics and maps can either be created by:

- [Creating a new document](#) on page 1048

- [Import external DITA](#) on page 1050

## Creating a new document

### Using a template

A new Structured Content document can be created via a template. This will create a new instance of the document. This document can be opened in the Structured Content editor.

### The Structured Content Editor

Authoring of DITA content in WebCenter is done in a dedicated best-in-class content editor. The editor is opened by clicking the document thumbnail or via the **View and Annotate** action.

### Viewing Options

The editor/viewer will show you:

- The text content of the document that was opened
- Any extra documents which the root document is referring to. For example: a map that has multiple topics
- Any images that are included in topics
- Any tables, footnotes, warning statements and other DITA constructs which are supported
- A header at the top of the screen with: file name, version number, project name and user name
- A menu structure with a few tabs
- Sidebar tabs that can be expanded (right side):
  - Outline: showing a structural view of the document that are open in the editor
  - Whitespace: Click this button in the Tools ribbon to show non-printing characters (for example, the whitespace characters are represented by dots). Click it again to hide them.



**Note:** The range of non-printing characters that can be shown can vary depending on your browser, as not all browsers support showing all non-printing characters.

- Comments: A way to add annotations on the structured content
- Dashboard: When one or two dashboards are configured, this tab will show information about the opened document(s). See [Configure Structured Content](#) on page 440
- Search: opens an advanced search panel for search/replace on all the opened documents
- XML code: shows the XML code of the currently focused document
- Buttons (top right):
  - Open review: to open an optimized view on the currently focused document for reviewing and making annotations
  - Show changes: to compare the currently focused document with its older versions
  - Search: to search for text in all the opened documents
- Breadcrumbs of the current cursor position (bottom left)
- Buttons for the notification center, keyboard shortcuts and info about the Structured Content Editor build (bottom right)

## Editing Structured Content

When a user starts editing a piece of text, the related document becomes **locked** in WebCenter. If another user is looking at the same document version, the document shows up as locked in the Structured Content editor (and becomes viewable only). There is a message indicating who locked the document. When the user saves the changes, the document(s) are unlocked again and a new version of the document is created.

When a user is looking at some documents and there is a new version (of the same parent document version), a **refresh** button becomes available to see the latest changes. Refreshing will simply load the new version and has no further impact.

When opening a Structured Content document (e.g. a map) and that map is using a non-latest version of a topic (or another map), the Structured Content editor will indicate that there is a newer version available of the document available. It is indicated both in the document, and in the outline view in the editor. You can click on the indication on the document to open a side-by-side view, which shows the current version on the left, and the latest version on the right. For both versions the modified date and time is available (info icon). An option is available to update the topic to the latest version. Save the map to save the change. The same "new version indication" can appear on referenced content inside a topic (e.g. images) as well.

## Formatting Options

The Structured Content Editor has a lot of formatting options and elements that can be inserted. These formatting options can be found in the different menu tabs.

- Bold, Italics, Underline, Subscript, Superscript – normal text formatting settings
- Generic table, Simple table, Simple table in figure – tables with rows and columns
- Definition table – can describe a term and its definition
- Parameter table – can describe a parameter and its definition
- Property table – can specify property a term and its definition within a topic
- Reuse content – DITA conrefs
- Text Statements – WebCenter PCM text statements
- Symbols – like special symbols such as copyright, trademark etc.
- Intro – Short description and abstracts
- Sections and examples – a section within a topic
- Groups in section and body division
- Several types of hazard statements and notes – Statements which specify Hazard, Caution, Danger, Notice etc. along with the steps to avoid can be specified
- Long quotes and footnotes – for repeating content on the footer of topics
- External reference links – which specifies hyperlinks to external websites
- Phrase and quotes within paragraphs – phrasing or quoting a specific section of a paragraph

## Inserting and Reusing Content

### Inserting and Reusing Topics and Maps

Click **Insert existing topic** or **Inset new topic** from the Structure menu. A Saved Search popup is opened where you can select the topic you want to insert. Do not forget to save the map after inserting a topic. Note that an existing topic will just be referenced, while a new topic will be a new instance of an existing topic, a copy. Use the same buttons to add maps.

### Inserting and Reusing Images

Click **Figure with image** or **Inline image** from the Structure or Inline menu. A Saved Search popup is opened from which you can select an image. An existing image can also be replaced by clicking on the image, and selecting **Replace**.

### Reusing Parts of Topics (DITA Conrefs)

You can select phrases and paragraphs to be reused within the currently opened document from all topics within the system. Click **Reuse content** from the Structure menu to open the Saved Search popup. After selecting a document, a preview of the document is shown. You can select reusable content from this preview. Supported types or reused content are:

- Paragraphs (<p> tags)
- Phrases (<ph> tags)
- Tables (<table> tags)
- Sections (<section> tags)
- Section divisions (<sectiondiv> tags)
- Notes (<note> tags)
- Ordered list (<ol> tags)
- Unordered list (<ul> tags)
- Simple list (<sl> tags)
- Divisions (<div> tags)

The content you select will be included in the document.

When a conref is shown in the Structured Content editor (so based on import or by inserting here), you can click it and a popover will open.

That popover has 3 buttons:

- **Remove:** to remove the conref. A conref can also be removed by selecting it and pressing delete/backspace.
- **Show the origin:** this opens a preview of the document where the original text sits. The selected element is highlighted.
- **Edit:** to edit the conref. This opens the same preview again as when selecting the document in the Saved Search. You can pick another element and click replace to replace the original conref with the new one.

### Inserting PCM Statements

You can select PCM Statements from a Saved Search to insert them in a DITA topic. Click **Statement** from the Structure menu to open the Saved Search popup. Select a document, click insert and the PCM Statement is added to the topic you were editing.

### Import external DITA

Structured Content documents can be uploaded to WebCenter and these documents will be recognized as Structured Content documents. Dedicated functionality such as Search and Viewing functionality is enabled on these documents.

When importing a structured content document, it is important that all related documents be packaged together prior to upload, even if they already exist in the system.

If structured content documents already exist in the system, then the existing documents will be referenced instead of the uploaded ones.

- For images, the file name determines whether it is the same.
- For DITA maps and topics, the ID (SC\_ID) and language (SC\_LANGUAGE) are used to determine this. Note that any file name differences or similarities are ignored.

Also see: [Import Structured Content](#) on page 928



## DITA keyrefs

The Structured Content Management module supports DITA keyrefs. DITA uses keys to insert content that may have different values in particular circumstances. Keys provide a way to reference something indirectly. This can make it easier to manage and to reuse content in various ways.

### Introduction

Keyrefs allow for an indirect link between a DITA Topic, and a piece of text or an image that is included in the Topic. The same Topic can now have different content depending on the DITA Map it is used in. The Map typically has a link to one or more Keymaps containing the key definitions to resolve Topic keys within that context. There are two types of keys: text and images. Use the ctrl-k shortcut in the Structured Content Editor to see what keys are available at your cursor's location. New keys can be added via importing DITA keymaps, or by configuring document references in WebCenter.

### Setup

To work with keyrefs in WebCenter, the system needs to have a set of attributes and attribute categories. These can be imported using the **Structured Content Deployment Package**.

### Importing keyrefs

WebCenter supports the import and export of DITA keymaps. The file name of a keymap must end in '\_keys.ditamap' in order for WebCenter to recognize it as a keymap. The import of keymaps is handled in the same way as the import of a DITA package. The **Import Structured Content workflow node** allows you to specify a folder name where the created keys will be placed in the project.

- Image keys are imported as graphic files.
- Text keys are imported as Segments. Segments are a special type of PCM Statement with the following properties:
  - a Segment only has one language
  - a Segment only has one line (no newlines)
  - a Segment in DITA is always shown inline
  - a Segment has no permission model like other PCM Statements
  - a Segment is an invariant
  - a Segment has a fixed element type

Keymaps are imported as Component documents with the extension '.keymap'. The attributes of the keymap documents define which keys are in the keymap. The order of the keys in the keymap in the XML is retained in WebCenter. Each reference will have an SC\_KEY reference property that holds the name of the key.

During export WebCenter will recreate the keymaps based on the configuration of the keymap Component documents to comply with the DITA standard.

### Examples

Example of a keymap with only text:

```
<map id="myproduct_text_keys" xml:lang="en">
  <title></title>
  <keydef key="medical-product-name" processing-role="normal">
    <topicmeta>
      <keywords>
        <keyword>My Medical Product<tm tmttype="reg"/>
      </keywords>
    </topicmeta>
  </keydef>
</map>
```

The text of the "medical-product-name" key when it is resolved will be "My Medical Product®".

Example of a keymap with one image key:

```
<map id="myproduct_image_keys" xml:lang="en">
  <title></title>
  <keydef keys="IFU_diagram" format="jpg" href="myimage.jpg">
  </map>
```

### Adding keys to a keymap

Keys can be added to a keymap document by changing the document references of the keymap. Make sure to give each new key in the keymap a unique value for the SC\_KEY reference property. The name of the key needs to be unique within the same keymap.

### Adding keymaps to DITA Maps

One or more keymaps can be linked into a DITA Map by using the SC\_REFERENCE\_KEYMAP document reference attribute.

### Resolving keys in the Structured Content Editor

Keys will be resolved based on the context of the DITA Map that is opened. If the same key name is used for a key in two different keymaps, then the resolved value will be the value of the key in the keymap that is most specific in the hierarchy of maps (closest to the topic). If a key cannot be resolved, a warning icon will be shown. Keys have a light green background in the Editor.

### Adding a key in the Structured Content Editor

Use the ctrl-k shortcut to see what keys are available at your cursor's location. Alternatively, you can go in the menu to add a key. The list of keys is sorted in the following way:

- image keys come at the bottom
- keys from more specific keymaps appear lower in the list
- keys from the same keymap are ordered based on the order in the document references

## Working with Segments

Structured Content Management has support for PCM Segments. Segments represent single invariant words and phrases which are managed from PCM. Segments can be added, viewed and managed within Structured Content much like how PCM Statements are currently managed.

### Adding Segments

Users who have the permission to edit a topic in the Structured Content Editor can add Segments to that topic. Click **Inline > Existing Content** to bring up the Reusable Content Panel which contains a **Segments from Library** tab.

The Segments tab will display a Segment search which can be configured via Admin > Configuration > Structured Content Configuration. The **Saved Search for Segments** should be configured to only return Segments.

You can select a single Segment from the results and to insert it into the topic. The Segment will be added at the position of the cursor in the topic and will display in line as plain text.

Any Segments associated with a topic can be referenced as attribute values of the **Referenced Segments attribute** SC\_REFERENCE\_SEGMENT.

### Viewing and managing Segments

While viewing a Topic within the Structured Content Editor any Segment values will appear with a slight yellow highlight to indicate that the content being viewed is a Segment value.

If there is a **newer version of a Segment value**, the Structured Content Editor will display an icon informing the user that there is a new version of Segment value available. A user can update the Segment to the most current version by left clicking on the Segment and clicking **Use Latest Version**.

A Segment can be removed from a topic by right clicking the Segment in the Structured Content Editor and choosing **Remove**. A user needs edit permission on the topic to be allowed to remove a Segment.

Users can **update** a Segment value on a document by right clicking on the Segment and choosing the **View** option. This will bring the user to the Segment interface. Users can update the Segment value from this interface by changing the Master Text value. When the value is updated in WebCenter the user must refresh the document in the Structured Content Editor and then update the Segment to the new value.

### Importing Segments from DITA Keys and Structured Content Documents

When importing a ditamap WebCenter will attempt to create Segments for all Key values present in the document. Segments are unique by value within a system. If the Key Value already exists within WebCenter as a Segment no new Segment will be created. The DITA will not be modified to have Key References changed to Segments.

When importing a Structured Content document that contains Segments any Segments present on the document which cannot be found within WebCenter will have Segments created for them using the value present in the document for that Segment.

### Transforming Structured Content Documents containing Segments to Word

When a Structured Content document containing a Segment is transformed into a Word document Word will output the value of the Segment in the document.

## Reusable content search

Adding Reusable Content to a topic is possible via either the **Structure** or the **Inline** menu. A panel will open where you can search for and select different types of Reusable Content.

- Click Inline > Existing Content to enter a Key, Fragment or Segment.
- Click Structure > Insert Content > Existing Content to enter a Key, Fragment, Topic or Statement.

Each of these options has its own tab. When a tab is loaded the user is presented with a search for that Content Type. The Search that is displayed for each Content Type (except for Keys) is configurable from the [Structured Content Configuration page](#). When a single search result is selected from any of the tabs the user can choose to insert the selected content into the topic at the current position of the cursor.

The Reusable Content interface also contains a single search field. When a string is entered all the tabs will filter their results by doing a content search on that string. This is in addition to any other filters currently configured on those Saved Searches.

## Configurable UI for the Structured Content Editor

System Architects can now override the default UI of the Structured Content Editor, allowing them to configure which Tabs, Buttons and Sub Menus should be visible.

- **Configuring an Override File**

Solution Architects can find the Override File Template in the following directory of the Application Server: `\WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom_example\javascript\default`

The Override file is a JSON which lists a hierarchy of UI objects. Each object has an "isVisible" property which can be set to either true or false. If an object's visibility is set to false all of that object's children will also be hidden.

- **Deploying the Override File**

Once configured the Override file can be placed in the following location on the Application server: `\WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom\javascript`

Once placed the server does not need to be restarted for the changes to be recognized but any currently opened Structured Content Editors will not get the changes.

- **Setup or Configuration**

The following is a complete list of UI items which can be hidden:

- Structure Tab
  - Insert Content Button
    - Existing Content Option
    - New Topic Option
  - Table Button
    - Generic Table Option
    - Simple Table Option
    - Simple Table in Figure Option
    - Definition Table Option
    - Parameter Table Option
    - Property Table Option

- Figure With Image Button
  - Figure With Image Option
  - Inline Image Option
- Section Button
  - Section Option
  - Example Option
  - Reference Syntax option
- Group Button
  - Division Option
  - Body Division Option
  - Section Division Option
- Note Button
  - Generic Option
  - Attention Option
  - Caution Option
  - Danger Option
  - Fastpath Option
  - Important Option
  - Notice Option
  - Remember Option
  - Restriction Option
  - Tip Option
  - Warning Option
  - Other Option
- Long Note Button
- Footnote Button
- Related Links Button
- Quote Button
- Long Quote Button
- Inline Tab
  - Existing Content Button
  - Trademark Button
    - Trademark Option
    - Registered Option
    - Service Option
- Link Button
  - Hyperlink Option
  - Crosslink Option
- Inline Image

- Inline Image Option
  - Figure With Image Option
- Advanced Tab
  - Alternate Title Button
    - Navigation Title Option
    - Search Title Option
  - Term Button
  - Keyword Button
  - Hazard Statement Button
    - Hazard Statement Option
    - Attention Hazard Option
    - Caution Hazard Option
    - Danger Hazard Option
    - Fastpath Hazard Option
    - Important Hazard Option
    - Notice Hazard Option
    - Remember Hazard Option
    - Restriction Hazard Option
    - Tip Hazard Option
    - Warn Hazard Option
    - Other Hazard Option
  - Reference Button
    - Reference Syntax Option
    - Property Table Option
  - User Interface Button
    - Screen Option
    - Window Title Option
    - Shortcut Option
    - Menu Cascade Option
    - UI Control Option
  - Programming Button
    - Code Block Option
    - Parameter Table Option
    - API Name Option
    - Code Phrase Option
    - Option Option
    - Parameter Name Option
    - Syntax Phrase Option
- Tools Tab

- Source Button

#### 4.17.4. Impact analysis of changes

There are two side panels available when viewing a content map or topic within the Fonto Editor. Both are configured from **Admin > Configuration > Structured Content Configuration**

- The **Root Document Dashboard** represents the (root) content map. Most customer attributes (brand, country, etc) will be located with the map, and so will be useful to view within the editor. Regardless of the topic or section from which the user accesses, the root document dashboard will remain unchanged.
- The **Focused Document Dashboard** represents the content on which the user is focusing and will change as the user navigates the document. This helps provide additional insight on what the impact would be by changing/updating a specific topic, as you can see to how many maps it is linked.



**Note:** These dashboards will appear regardless of context, though they do respect permissions. This means that regardless of whether the user is viewing the map from a change request or in the library, the user will have the exact same options unless conditional rules are applied.

Structured Content Management in WebCenter will keep track of the structure of the document using document reference attributes. References to DITA documents are stored in the document reference attribute "SC\_REFERENCE". References to images are stored in "SC\_REFERENCE\_IMAGE". And references to PCM statements are stored in "SC\_REFERENCE\_STATEMENT". This allows setting up saved searches that can do impact analysis. This way it is possible to see all the places where a certain reusable part of the structure is currently being used.

#### 4.17.5. Showing Document History

History of modifications done to a structured content document can be viewed in the Document History user interface.

When a DITA or DITAMAP document is opened in the Structured Content editor, a **Show changes** button (also referred to as "history button") is available in the header bar on the right side of the Structured Content editor window.

When you click **Show Changes**, the Document History mode of the editor is opened.

- User can see the outline of the opened document on the left. For any documents in the Map that have changes, this is indicated with a blue dot. If a document would be added or removed, this is also indicated in the outline.
- User can see the selected document in the center. Selecting a different document in the outline shows this document in the Changes in the document are shown in balloons next to the content.
  - For each change the username and time is visible.
  - The user can mark a change **as seen** or unmark **as seen**. It is possible to hide/show the changes marked as seen from the document history navigator on the top right of the document.
- User can use the **View in Editor** functionality in the change balloon to switch back to the editor mode, with the changed text.

- There is a document history navigator on the top right of the document. Using this navigator, User can step through all the changes in the selected document. It is possible to hide/show the changes marked as seen from the document history navigator.
- There is a timeline on the right.
  - User can select a date to compare the current state of the Map. User can also select a few other time periods like "last 24h" and "last 7 days".
  - User can also select "Last visit". This will show the changes in the whole Map that happened between now and the last time User visited the document history mode for the opened (root) document, with this browser.
- There is a tab on the right containing versions. For the currently selected document this shows all the versions. Selecting a version will set the date in the timeline to this date and time (timestamp), and the whole map will show a comparison between the current state and the timestamp that was selected.
- On the top left of the **Document History** header there is a button to return to the editor. This will take the user back, and the currently selected topic in the history mode will be in focus in the editor mode.

#### 4.17.6. Comments on Structured Content

Comments can be made on the content inside the Structured Content editor as well as in the Review Mode of the Structured Content Editor. This Review mode has an optimized UI for making annotations.

##### Comment Balloons

In the Structured Content editor there is a Comments button which expands upon clicking. It shows the comments in **'balloons'** next to the content of the open documents.

##### Review Mode

Review Mode can be accessed in a few ways:

- Via the Structured Content editor by clicking on the **Open Review** button in the header. This will open the review mode for the document (map or topic) where the cursor is located at the time the button is clicked.
- Via the **Open Review** document action configured on the document details page of structured content documents.
- Via the **Open Review** button configured in a Saved Search or Dashboard.

In the Review Mode, all the documents are read-only. When selecting some content in a document, a popover allows for easy creation of a comment or a proposal.

##### Making a Comment

You can make a comment by selecting text, image or other content and clicking on the comment button. There are three types:

- **Comment:** simple comment on some content. Can be general, editorial or technical.



**Note:** The classification of comment is useful for filtering purposes, but is not connected with any other feature.

- **Proposal:** a proposed change to the content in the documents. Also, a motivation can be provided.



- **Global comment:** a comment that is not linked to some content in the documents, but to the whole publication. Can be general, editorial or technical.

Saving the comment will allow this comment to be visible by other any other user that is looking at the document the comment was made on. The comment will receive an index shown in square brackets: e.g. [1]. The reason for this is to simplify referencing of the comments in the audit trail (Project history).

**Replying to a comment**

Users can reply to comments. Saving a reply publishes it for everyone to see. Replies also get an index. The format is [<comment index>.<reply index>] (e.g. [1.1]). Comments and replies can be changed and removed by the person that made the comment or reply.

**Applying a change**

When a proposal is submitted, a user can apply the change from the Fonto Editor. Like a comment, they can accept or reject a change and provide justification.



**Note:** This option is not available from within the Fonto Review, only from within the editor.



**Note:** Applying a change does not resolve the proposal. That must be done separately.

**Resolving Comments**

Every comment can be resolved by either Accepting or Rejecting it. Anybody with view rights on the document can resolve a comment added to the document. A resolution comment (reason for accepting/rejecting) can be added. Once a comment is resolved it becomes read-only and cannot be deleted or changed anymore.

**Audit trail**

All creation events, changes, resolution and deletion events to comments and replies are tracked in the audit trail provided by WebCenter's Project history.

**Filtering of Comments**

The Structured content editor (both Edit and Review modes) provides a set of predefined filters that can be used to narrow the comments displayed in the Comment balloons. You can configure the filters by clicking **Filter** button in the header of the Comments Navigator in the top right of the document. Only comments complying to currently selected filters are shown. If no filter in given category (type, resolution) is selected it's the same as if all would be selected.

**Enabling Show Changes in Review Mode**

**Show Changes** button in the header of Fonto in **Review** mode allows user to switch to Fonto document history directly to check history of particular document(s).

## 4.17.7. Draft Comments in Structured Content

If you have Lock/Update permissions on a topic, you can use the Draft Comments panel to add draft comments about the topic's content, using the DITA `<draft-comment>` element. You can use these for internal references and discussions (for example, to add a justification to a product claim).

**Adding Draft Comments**

1. In your topic, select where to add a draft comment.

2. Open the **Draft Comments** panel.
3. Click the **Add Draft Comment** button.
4. Type in your draft comment and click **Add** (you can also Cancel your comment).
5. This adds a text balloon icon in the content at your comment location. You can hover on the icon or click it to view the comment. The comment is also listed in the Draft Comments panel.

The comment author and the time it was added are recorded within the draft comment element (you can check this in the Source view).

### Editing or Deleting Draft Comments

With the same permissions, you can also edit or delete comments (even those from other users). You cannot do this in Review mode.

1. In the **Draft Comments** panel, click the **Ellipsis** menu (...) of the draft comment you wish to edit or delete.
2. Choose either **Edit** or **Remove**.
3. Click **Update**.
4. If you edited the comment, your name and the time of editing will be recorded in the element.

### Navigating Between Draft Comments

You can navigate between comments by clicking each comment in the Draft Comments panel to go to its location in the content. You can also click a comment icon in the content to select it in the Draft Comments panel.



**Note:**

- Draft comments will not be published to your chosen output format, unless you use an output template that specifically includes them in the output.
- If you have older annotations (using `<?fonto-xml-annotations>`), these are handled the same way as draft comments. When you edit one of these annotations, it becomes a draft comment.
- As they are part of the DITA content of the topic, draft comments are kept when exporting, copying or versioning this topic.

## 4.17.8. Variants and Translations

### What is a Variant?

A Variant of a Structured Content document is created when the users decide the master content (or translation of the master content) cannot be used as-is for a local market (or for a specific purpose), and certain elements (sub-maps, topics, images, etc) must be altered. The master (and master translation) should still be used in most places, just not in the specific region that pertains to the variant.

### How to create a Variant?

You already have a structured content document structure in a project. Let's say this is your library project. To start creating a variant you first copy the root map of your structured content structure to a local project. At this point the copied root map will still use all the topics that are in the library.

When opening the copied root map in the Structured Content editor you will probably see that you are not allowed to change the topics, because they are still in the library and approved (depending on the setup).

You can now select one of the topics in the Structured Content editor by putting the cursor in it and copy it to the local project by clicking **Create Variant** in the menu. The document is now copied into the project with the intention of making a slight difference in the content.

The system will keep track of what documents are variants of which other documents with document references (SC\_MASTER\_VARIANT document reference attribute).

When creating a **Variant** or a **Translation as Variant**, the system will look for a folder with the name "Variant" (not case sensitive) in the target project. In case the folder is there, the variant will be created in the Variant folder. In case the variant folder is not there, then the behavior is the same as with the **Copy Topic** or **Translate** buttons: the document will be copied into a folder with the same name as the folder in the source project.

### Variant Permissions

You need the following permissions to create a variant:

- **View** and **Download** on the source folder.
- **Lock** document.
- **Add** on the destination folder (the variant folder, or the folder with the same name as the source folder if the variant folder does not exist).
- **Change Properties** on the destination folder.

If you don't have the **Add** and **Change Properties** permissions on all submaps between the topic being copied and the root map, you may be restricted from creating a variant, unless your Administrator has enabled the "Elevate Permissions for Content Owners performing Inline Edits" preference in the [Structured Content Configuration](#).

The same principle applies when creating a local copy instead of a variant.

### Translations in the Structured Content Editor

A user opening the Structured Content Editor in **Edit** or in **Review** mode can open the **Translation View** in case the opened document has a translation master (meaning that the opened document is a translation of this master). The Translation View can be opened by clicking the **Compare Translation** button in the Tools tab of the menu in the Editor. The Translation Mode will show the Translation Master on the left of the screen. This master is not editable. It is possible to navigate in the master document and open the history for the master. On the right side of the screen the translation is still visible. In case the Editor was opened in Edit mode, the user can make edits on the right while looking at the master on the left. Scrolling is synced between the two panels. When the scrolling of the panels is out of sync, the user can click on a document in the outline of the right panel to sync the scrolling again.

There are two ways in which translations are handled in WebCenter. The first and most common is through an external agency.

1. Using the [Export Structured Content](#) on page 917 workflow node, all associated content can be exported as a package (a compressed ZIP file)
2. This package can then be sent to an external translation agency, who is able to unpack and translate each DITA file contained within.
3. Once the translation is complete, the agency will change the language within the DITA (i.e. the "xml:lang" tag), and it can then be re-imported.
4. Using the id and language, the translated content will be linked with the master language content.



**Note:** User must have the following permissions on the target folder for the translate as variant to succeed :

- View and Download on the source folder
- Add
- Lock Document
- Change Properties

The second method is internally. This method is simpler, though more manual.

1. A workflow would create a copy of master content and change the language (the "SC\_language" attribute) associated with the DITA file.
2. The user would then change/update the text with the new translation.

### Translation Source change Indication

If a user is viewing a DITA Map which is a Translation of another DITA Map stored in the system they will now see an indicator if the Source Content the Translation was based on has changed. This indicator will appear in both the Document View the and the Outline. There will be an indicator for each Topic within the Map which has updated content. Clicking on the indicator will launch the Translation View so the user can compare the current content with the updated Source Content.

#### Updating Content

If a user wants to update the content but not necessarily update it to match the latest translation, they can make their changes and save the Topic. On Save if the Topic edited has the Source Content Changed indicator the user will be prompted whether they are updating the content to match the latest translation. The user should select to not update to match the translation. Doing so will save the new content and the Source Content Changed indicator will remain.

#### Updating a Translation

If a user wants to update the content to match the latest translation, they can make their changes and save the Topic. On Save if the Topic edited has the Source Content Changed indicator the user will be prompted whether they are updating the content to match the latest translation. The user should select to update to match the translation. Doing so will save the new content and the Source Content Changed indicator will be removed. Internally this document will now reference the latest translation.

#### Saving multiple documents at once

Within the Structured Content Editor a user can save all Topics within the map at the same time by using the save button in the main Ribbon. When doing this if there are any changes to Topics which are showing the Source Content Changed indicator the user will be prompted to select which Topics are being updated to match the latest translation. The user can select one or many of those topics. Topics selected will be updated and reference the latest translation. Unselected Topics will be updated and still show the Source Content Changed indicator.

## 4.17.9. Managing Output Styles in the Structured Content Editor (DITA outputclass)

The DITA outputclass XML attribute on an element (e.g. a paragraph) can be used for styling during output processing. For example, a `<p outputclass="highlight..."/>` can be used to give a paragraph in the Word output a grey background. Note that this is only the case if the plugin used for outputting the document is configured to print elements with this outputclass with a grey background.

There are buttons in the **Start**, **Inline** and **Structure** menu of the Structured Content Editor to add output classes to elements. Put your cursor to the element or select a piece of text and click on the output class to apply.

### Supported types

Following types of output classes are supported:

- block level output classes: those can be assigned to block level elements (e.g. p, h1, div, title...) and always span the whole block level element they are assigned to
- inline output classes: useful when an output class needs to be applied to just a part of the text. The marked text will be wrapped in a <ph> element.

### Available Output Classes

The list of available output classes is defined in a WebCenter list 'SC\_Outputclasses\_Definition'. It can have following columns:

- **label**: The label of the Output Style to display in the menu of the Structured Content Editor.
- **operationname**: The type of Output class which can be 'block' or 'inline'. This defines the behavior of the Output class within the Esko dita editor and determines where it is placed in the menu.
- **outputclassname**: Name of the class to be inserted for the XML element.
- **fontstyle**: Indicates the visualization in the Structured Content Editor. For example: background-color=grey will show any ph with this outputclass with a grey background. Only background color is supported. For block level elements, this is only visible in a popover when clicking the element.
- **groupname**: Name of the group that can add this output class. This way, one can make a different lists available for template builders or content authors.
- **description**: Explanation of what the style sheet will do.
- **elements**: Which DITA elements the output class can be applied to. This is a comma delimited list. Not setting a value will allow the style sheet to be used on all elements.
- **formats**: Which output templates the output class is restricted to. This is a comma delimited list. Not setting a value will allow the style sheet to be used on all output templates.
- **indd**: Whether or not the output class is relevant to InDesign. Acceptable values are Yes and No.

How do you know if an Output Style is applied to an element in the Structured Content Editor?

- the menu item is active
- for block level elements, a title is shown
- a popover is available with details on the Output Style

### Selecting Output Styles

When clicking on the Output Styles button the user's cursor position in the document is used to filter the options down to only Output Styles which can be applied to that DITA Element. Users can also select to show all available elements to filter the list down to the element the user's cursor is on and all of its parent elements. When filtering the available output styles are grouped under the element which they apply to. Users can also search the currently displayed output styles by name to further filter their options. When selecting an output style it will be applied to the element it was selected for.

Output Styles which are applied will show in the Editor on the Element which they are applied to. If more than one output style is applied to an element the UI will group output styles to conserve space and inform the user there is more than one output style. Clicking on the output style name in the Editor will show the user a list of applied Output Styles and allow the user to remove individual output styles.

Output Styles can also be removed by highlighting the element they are attached to, clicking the output style selector and clicking the selected output style again.

Some elements do not have a lot of space to show output classes and the user may need to use the element breadcrumb trail in the Editor to select the specific element they wish to set or unset output styles.

**Setup or Configuration**

The most up to date Output Class List must be uploaded into the system as the List SC\_Outputclasses\_Definition

### 4.17.10. Managing Structured Content

To best manage structured content, it should be split between two types of projects – library projects and work-in-progress projects. This ensures permissions can be managed accordingly.

**Permissions**

Similar to PCM, all structured content (even topics) should have an owner – a role in the system responsible for authoring each section. There may be sections specific to regulatory sections, safety sections, etc.

To maintain these permissions, project folders can be used to store content for each role. However, these folders must be named the same from project to project (even from WIP to library).



**Note:** When copying a document with references, the referenced content will attempt to be copied to the folder in which it was originated (e.g. if you have a content map with a topic located in a REGULATORY folder, then when copying the map, the topic will try to go into a REGULATORY folder.) If this folder does not exist, it will be copied to the root folder.

If you have permissions on a topic but not on its parent map(s), by default you cannot:

- Edit this topic inline in the context of the map(s) you do not have permissions.
- Make a local copy of this topic and its parent map(s).
- Create a variant of the topic and its parent map(s).

You can only perform these actions if your Administrator enabled the “Elevate Permissions for Content Owners performing Inline Edits” preference in the [Structured Content Configuration](#).

When users perform actions using this change of permissions, this is logged in the Project History.

**Transferring Imported Content**

When content is initially migrated into the system, it is recommended to be done as part of an import project, separate from the library. Once content is imported into this project and you are ready to transfer it to the library it is critical that imported content be MOVED into the library, as the ID (SC\_ID) will be updated when content is copied, and newly imported content will not be able to find it.

**Transferring Updated Content**

Due to the inherent nature of structured content (i.e. as a collection of maps, topics, images, etc), transferring approved content from a WIP project to the library project is a delicate process.

This can be done via the [Copy/Move Document](#) on page 900 workflow Node. When the **Copy Local Referenced Structured Content Documents** option is checked, the node will copy the document and its structure. This means that documents that are referenced via the SC\_REFERENCE document reference attribute are copied along to the target project.



**Note:** Only documents that sit in the source project of the file that is originally copied (i.e. are 'local' to the source project) are copied.



**Note:** user needs both the **Add** and **Lock Document** permissions to copy a Topic or create a variant. The request is to add the **Change Property Permission**.

### Removing Untitled Map Text from Fonto Outline

In the Outline view of the Structured Content Editor any Map or Topic which does not have a Title set will show as an empty string in the Structured Content Viewer's outline view.

### Searching Reusable Content

There have been improvements to how users can search for reuseable Content in the Structured Content Editor.

#### Item Count

In the Structured Content Editor when a user clicks the Existing Content button the search interface will now display how many items were found for each Content type. This number will update on every search.

#### Hiding Content

WebCenter Admins can hide any Tabs they do not wish to see in the Reusable Content search by not configuring or removing the configuration for the corresponding Saved Search in the WebCenter Admin Structured Content Configuration page.

#### Setup or Configuration

If Saved Searches are not mapped to the following field in the Structured Content Configuration page the listed Tab will be hidden when searching for reusable content in the Structured Content Editor.

Saved Search for Reusing Documents >Topic Tab

Saved Search for Text Statements >Statement Tab

Saved Search for Segments >Segment Tab

### Showing changes between two Versions of a Word Document

For system which have Structured Content License there is a new Task called **Compare Word Documents**. When configured, this task will accept two MS Word Document Versions, compare them, and return a single MS Word Comparison file (Legal Blackline). This operation should be comparable to performing the MS Word Compare operation on these files with all options selected but **Fields**.

This task has the following parameters:

- Current Doc Version: A Document Version Reference to the changed file.
- Reference Doc Version: A Document Version Reference to the original file.
- Target Document Name: The name of the resultant output file. If left blank the output file will be named using the document name and version of the input file.
- Output Folder: The name of the folder the output file will be placed in.

When creating the output file if a file with the same name already exists in the Output Folder the file will be versioned.

#### Setup or Configuration

The site must have the Structured Content License enabled for this task to appear.

The task accepts two File Version References not two documents. It is recommended to define these inputs as **SmartNames** which point to **Task Specifications** on the task which represent the two file versions.

### **Keeping the Referenced Content Version**

Users can now choose to resolve the **Newer Version Available** warnings within the Structured Content Editor by keeping the version of the content on the document.

### **Keeping the current Content Version**

In the Structured Content Editor users may see the New Version Available warning when there are newer versions of the Content being referenced. Users can now choose to keep the current version of the Content by clicking on the warning and selecting the "Keep Current Version" option. When this is done the warning will be replaced by a new checkmark icon. The user who made this decision and the time at which they made the decision will also be logged for audit purposes.

### **Updating the Content**

If a user would like to update the content after a decision to keep the current Content version was made the user can click the checkmark icon. This will bring the user back to the update version interface and the user can click the Apply Version button.

If the Content is versioned again after the decision was made to accept the current Content, the original warning will be restored and the user must choose to keep the current version of the content again.

### **Auditing the Decision**

If a user would like to see who made the decision to keep the current Content version they can click on the checkmark icon. The user will now see who made the decision and when the decision was made, in the update version interface

The decision can also be checked from within WebCenter by using the Project Action History.

### **Setup/Configuration**

Three new WebCenter Attributes need to be created to use this functionality:

- SC\_KEEP\_VERSION\_NAME
- SC\_KEEP\_VERSION\_TIMESTAMP
- SC\_KEEP\_VERSION\_VERSION

## **4.17.11. Granular Mapping in Structured Content**

WebCenter now has support to map smaller parts of a ditamap to an InDesign Artwork Template as opposed to mapping the entire ditamap.

### **Extracting InDesign Tags**

Before a user can map Structured Content to an InDesign Artwork Template the InDesign Tag information needs to be extracted into WebCenter. To do this a new Task Type has been created called Extract InDesign Elements. This task will take one or many documents as an input and extract their Tag information.

If any file fails to process an error pin will be created for the file which failed.



## Selecting an InDesign Artwork Template in the Structured Content Editor

A user can link a ditamap to an InDesign Artwork Template using an attribute template which is configured as described in the configuration section. If this configuration is based off of the existing PCM Artwork Template Configuration please ensure not to fill in a value for Element Type when the ditamap is linked as doing this will map the entire ditamap ignoring any granular mapping which may have been set.

Once a ditamap has been linked to an InDesign Artwork Template a user can launch the ditamap in the Structured content editor. When the ditamap loads the user will see a new Tab called Artwork Mapping. From within this tab a user can load an InDesign Artwork template to map by clicking **Select Artwork Template**. The InDesign Artwork Templates which can be selected are controlled by the Saved Search configured in the Saved Search for Artwork Templates value of the Structured Content Configuration page.

If the selected Artwork Template has not has its Tags Extracted or has not linked to the ditamap or an error will be thrown.

If a ditamap is linked to multiple InDesign Artwork Templates, then the user can switch which Artwork Template they are mapping by clicking **Select Artwork Template** again.

When an InDesign Artwork Template is loaded any mappings saved between the Template and the loaded ditamap will be restored.

## Mapping Structured Content to an InDesign Artwork Template

To map content from the Artwork Mapping Tab a user can click the **Select Content** for the Tag they want to map. This will open up a new hierarchical view of the loaded ditamap which the user can navigate and select an element to map.

To map content from the View Pane a user can right click on the element they want to map and choose the Map to Artwork option. If an element is a child of other mappable elements the parent elements will also be selectable with their own Map to Artwork options. Clicking any Map to Artwork option will open a pop-up displaying the Topic the selected element resides in. To change the selected Content in the view the user just needs to click on another mappable element. To map this content to a specific Tag the user will select the Tag from the Select Tag drop down. In this drop down any Tags which are already mapped will show a Dark Tag icon. When attempting to map Content to a Tag which already has a mapping a warning will be displayed.

When Content is mapped to a Tag the view of that Tag will change in the Artwork Mapping Tab to show the element which is mapped, a preview of the content. Clicking either of these items will focus the view pane on the mapped content and briefly show an outline of the mapped Content.

To see what a Tag is mapped to a user can click on the Go to Mapped Content button for that Tag in the Artwork Mapping Tab. This button will also show the user what element type has been mapped.

To remove a mapping a user can click on the Remove Mapped Content button for that Tag in the Artwork Mapping Tab.

To edit a mapping, a user can click the **Edit Mapped Content** for that Tag in the Artwork Mapping Tab.

A user can filter the Tags in the Artwork Mapping Tab to show All Tags, Mapped Tags or unmapped Tags by using the filter.

To save their mapping a user can click **save** in the Artwork Mapping Tab.

## Mapping Content from Multiple ditamaps

A user can map content from multiple ditamaps to one InDesign Artwork Template. To do this the user must link all of the ditamaps which will provide content to the InDesign Artwork Template. The user will then open each ditamap within the Structured Content Editor, select the linked InDesign Artwork

Template and perform the mapping. In this scenario users need to be careful not to map the same Tag to Content from multiple ditamaps as a Tag can only render content from one source.

### Mapping Content from Multiple Locales

A user can map an InDesign Template which supports content from multiple locales. To do this make sure that your InDesign Artwork Template is using the WebCenter naming convention for locales so that each Tag which needs to support multiple locales has its own Tag ending with the locale index. In this simple setup lets assume that the Template contains a PRODUCT\_INFORMATION Tag for two locales. The WebCenter format for these Tag names would be PRODUCT\_INFORMATION\_I1\_L1 and PRODUCT\_INFORMATION\_I1\_L2. The user will then link a ditamap with the content for Locale 1 and a ditamap with the Content for Locale 2 to the Artwork Template. The user will then open the ditamap for Locale 1 in the Structured Content Editor and map the PRODUCT\_INFORMATION\_I1 tag to the desired content for this Locale. The user will then repeat the process for the Locale 2 ditamap. The user will then specify which locale maps to which language using the Artwork Template attribute category. This allows a user to swap languages between locales without having to remap all of their content to a specific locale Tag.

### Generating Artwork

For a user to generate the InDesign Artwork they will need to run the Apply Content in InDesign Task. This task will replace the content of any Tags pointing to Granular Structured Content with the Content that tag was mapped to when it is run.

If there are any errors in this process an Error pin will be created.

### Setup or Configuration

Configure a new Task to Extract InDesign Tags. As there are multiple ways to initiate this Task make sure that the input to the task is limited to a list of InDesign files.

The SC\_TAG\_ELEMENTS attribute needs to be created in the system.

A new Document Reference attribute must be created (or an existing one edited) to contain the SC\_TAG\_ELEMENTS attribute as a Reference Property. This new Document Reference need to be added to a link between in InDesign Artwork Template and ditamap. It is strongly suggested to add this reference link to the existing PCM Artwork Template setup for mapping a ditamap to an InDesign Artwork Template.

The users performing the mapping need to have edit rights to the SC\_TAG\_ELEMENTS attribute.

As new saved search needs to be configured which will search for all InDesign files who have a reference to the passed document. Document Name = "\*"\*.indd" and Reference = "[Document Version ID]" On the Structured Content Configuration page this new Saved Search will be set as the value for "Saved Search for Artwork Templates". This configuration will ensure that only InDesign files which are linked to the loaded ditamap will be shown as available Artwork Templates in the Structured Content Editor.

### Apply Existing Mapping

If a user has performed a content mapping between a DITA Map and an InDesign template they can now use that mapping when creating a new mapping.

The Artwork Mapping Tab in the Structured Content Editor will now have a new button for Reuse Mapping. When clicked the user will be shown a list of DITA Maps which are already linked to the loaded InDesign Template.

Users can also search for a specific mapping to reuse by using a configured saved search for an InDesign file which has mappings. On selecting an InDesign file its mappings will be displayed and one can be chosen.

When a mapping is selected, the system will attempt to import any mapped elements where the InDesign Tag ID and DITA ID are the same between the selected mapping and mapping I am working on.

If an imported mapping has one or many conflicts with current values on the mapping the system will prompt me to overwrite all values or stop the import.

### Setup or Configuration

On the **Structured Content Configuration** page the value for **Saved Search for Artwork Templates That Have Been Mapped** needs to be configured to point to a Saved Search which returns a list of InDesign Files which have mappings.

The **SC\_SOURCE\_ID** attribute must be configured. It is a text value. It should be part of the **SC\_DITAMAP** and **SC\_TOPIC** attribute categories.

The **SC\_HAS\_MAPPINGS** attribute must be configured. It is an integer value. It will hold how many DITA Map references are mapped to an InDesign File.

### Undo Changes from Last Save

Users performing Granular Content Mapping within the Structured Content Editor can see all changes they have made to the mapping since the last time the mapping was saved will be highlighted. Upon saving the mapping any highlighted values will be saved and will no longer be highlighted.

Users can also use the Undo button to revert all changes to the mapping since the last time the mapping was saved to their original saved values.

### Support for the Body Element

The Body element can only be mapped by right clicking the View Pane and selecting the Body Map to **Artwork** option or by clicking the **Body Element** in the document breadcrumb and selecting the Map to **Artwork** option.

## 4.17.12. XREF Support in Structured Content

The Structured Content Editor now has support for creating and managing references to locations within the same ditamap and external URLs.

### Adding and Managing Internal References:

From within the Structured Content Management Tool a user can add an Internal Reference to a point within the loaded ditamap by placing their cursor in the View Pane, clicking on the Link button from the Inline ribbon and choosing the Cross-link option. This will bring the user to a hierarchical view of the loaded ditamap. From this view the user can navigate to the element they wish to link to within this ditamap. When the user had made their selection they can click Insert to add the reference or cancel. If a reference was added the user can choose to enter text for the link in the View panel. The reference will show in the View panel as a hyperlink.

To edit an internal reference a user can click on the reference in the View Pane and choose the edit option. This will bring the user back to the Hierarchical view of the loaded ditamap.

To delete an internal reference a user can click on the reference in the View Panel and choose the Remove option.

An internal reference can also be created by highlighting existing text in the View Panel and then clicking on the Cross-link button. If a reference is made this way the text of the reference will be the highlighted text.

A user can see the full contents of the internal reference by clicking on the reference and choosing the show more option. The referenced content will be displayed in a new popup.

### **Adding and Managing External References:**

From within the Structured Content Management Tool a user can add an External Reference to a URL by placing their cursor in the View Pane, clicking on the Link button from the Inline ribbon and choosing the hyperlink option. This will pop up a window in which the user can enter the URL they want to reference. When the user has entered a URL they can click Insert to add the reference or cancel. If a reference was added the user can choose to enter text for the link in the View panel. The reference will show in the View panel as a hyperlink.

To edit an external reference a user can click on the reference in the View Pane and choose the edit option. This will bring the user back to the URL pop up.

To delete an external reference a user can click on the reference in the View Panel and choose the Remove option.

An external reference can also be created by highlighting existing text in the View Panel and then clicking on the Hyperlink button. If a reference is made this way the text of the reference will be the highlighted text.

A user can navigate to the external URL from within the Structured Content Editor by clicking on the reference and then clicking on the URL displayed in the popup.

### **Versioning References**

If a user updates Content within the ditamap and that content is the target of an external reference the external reference will be updated to point to the updated Content.

### **Importing References**

If a ditamap is imported which contains an XREF element the XREF elements on that Topic will be shown as references in the Structured Content Editor. If the imported XREF is a reference to a document outside of the ditamap or is an invalid reference, then the XREF will be shown as text as WebCenter would be unable to resolve the reference.

### **Exporting References**

If a user added Internal or External references to a Topic they will be saved as XREF elements in the exported DITA.

## **4.17.13. Structured Content Improvements**

### **Advanced Logging for Indesign Tasks**

The following Tasks in WebCenter now have a new configuration option called **Debug Folder**:

- Apply Content in InDesign
- Extract InDesign Elements
- Export InDesign to PDF

If a value for **Debug Folder** is set for a task and an error occurs while InDesign is executing that task the system will create a compressed bundle of files which can be used by Esko to troubleshoot why the task failed. This file will be uploaded to the project folder with the name specified by the value of **Debug Folder**. If that folder does not exist on the project it will be automatically created. The file will be

named based on the filename which is the input to the task. If there is already a debug file for that file the debug file will be versioned.

### Setup or Configuration

The **Debug Folder** value must be set on the Task. It is recommended to use a SmartName as a value so that a user can enable the debug functionality on a project by project basis or even in between executions of the same task.

The Apply Content in InDesign, Extract InDesign Elements and Export InDesign to PDF tasks now all have an additional Error Pin to capture failures that occur as a result of processing in InDesign.

### Choose a Newer Content Version

Content Editors can now choose which version of referenced content to update to when clicking on the **New Version Available** warnings within the Structured Content Editor.

#### Selecting a Version

In the Structured Content Editor users will see the New Version Available warning when there are newer versions of the Content being referenced. Upon clicking the indicator, the user will be able to see the Current and Latest version of the content side by side and the version of the content being displayed. If the content being referenced has multiple new versions the version indicator for the New version will be a dropdown containing all of the newer versions. By default, this dropdown will be set to the latest version of the content being referenced. When a version is selected from this dropdown the content will update so that the user can compare the selected version with the current version of the referenced content.

#### Updating the Content

To update the referenced content to the selected version the user can click the "Apply Version" button. The **New Version Available** icon will now show as a clear icon until the user saves the document. Upon saving the document the icon will disappear if the latest version of the referenced content was selected or will reappear as a solid icon if an intermediate version of the referenced content was selected. The icon remains if a user selected an intermediate version so that they can make a decision to update or keep the current version.

#### Reverting the Content

While the **New Version Available** icon is in the clear state the user can undo or change their selection by clicking it and choosing either the current or another version of the referenced content.

## 5. Customization Guide

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## 5.2. Why Customize WebCenter?

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You can customize the look and feel of WebCenter. This information describes what can, and what cannot be modified, and includes instructions on how to make those changes.

Whenever you let your customers or partners work with your WebCenter-enabled website, you spread a message to them. Therefore, most WebCenter customers want to brand their site and take the best advantage of the time the WebCenter user spends using the site.

WebCenter allows changing color schemes, logos and images, and virtually every piece of text. You can even change the logo based on who logs in. This way, you can make the user feel treated personally. WebCenter gives you a high amount of flexibility in changing the look and feel. You can combine this with custom menus to change the navigation within the site.

Esko cannot guarantee robust functionality and consistent behavior when upgrading when you start changing the way WebCenter reacts to customer actions.

Some changes to the navigation are built into the product. Good examples are customizable menus, the choice of what document types are allowed, whether documents are shown in a list view or a grid view, or what CAD outputs are available.

Do provide your suggestion to Esko via your local Customer Services representative.

## 5.3. Where to Start the Customization?

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### Customizing the Look and Feel of WebCenter

The user interface to customize WebCenter's look and feel is the `customizationConfig.xml` file. To apply your customizations, modify this file accordingly and save it. The changes are visible after a little while (this can take up to a few minutes).

The `customizationConfig.xml` file should be placed into the customization directory on your Webserver instance, which is `<WebCenter_Instance>\custom` directory (such as `c:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\custom`).

See [Customizing the Look and Feel of WebCenter Using the customizationConfig.xml file](#) on page 1081 for details.

It is also possible to customize several of these elements from the Customization page (from WebCenter 12.1) in the Admin section without editing the `customizationConfig.xml` file manually anymore. See [Customizing the WebCenter Using Customizations Page](#) on page 1077 for details.

### Customizing the WebCenter Menus

You can customize the WebCenter menus to tailor what users see to what they need to do in WebCenter.

You can manage custom menus through the WebCenter user interface. Log in as an Admin, and go to **Admin > Preferences > Menus**.

See [Customizing the WebCenter Menus](#) on page 1093 for details.

Since WebCenter 12.1, it is also possible to customize menus using the Menu Builder in the WebCenter Admin section.

### Customizing the E-Mail Notifications

All the e-mail notifications' related files are stored on the Application Server in the following path: `C:/Artios/WebCenter/ApplicationServer/EmailNotifications`.

Inside the root directory you can find two subdirectories - Default and Custom. Actually you will notice that there is also a third one - example - with an example customization.

To customize the e-mail notifications, modify the files in the Custom subdirectory.

See [Customizing the E-Mail Notifications](#) on page 1118 for details.

## 5.4. Applying your WebCenter 12.X or 14.X customization to WebCenter 16.X or later

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It is possible to re-use your WebCenter 12.X or 14.X customization in your WebCenter 16.X or later installation. This section explains the changes that need to be made to make the customization work properly in WebCenter 16.X or later, along with new customization features that come in WebCenter 16.X, 18.X, 20, 21.X or 22.X.



### Moving your customization from WebCenter during Upgrade ( 12.X or 14.X to 16.X or later)

Before upgrading your WebCenter installation, please make sure your custom folder is backed up in a different location. You can find the custom folder on your WebCenter Web Server: `<WebCenter_Instance>\custom`. You may have used different custom folders for different WebCenter instances.

After you have created your new WebCenter instance, copy the contents of the custom folder into the new, empty custom folder. The contents of the custom folder typically includes folders such as "images", "text" and "languages".

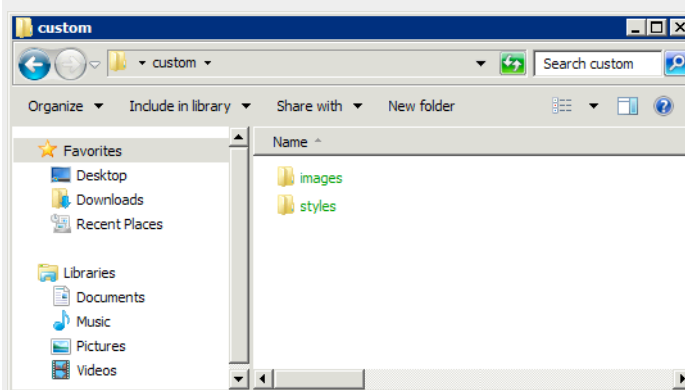


**Attention:**

When copying folders from a different operating system into your custom folder (especially from Mac OS to Windows), make sure the contents are not encrypted.

1. Right-click the old folder you are copying into the custom folder, and select **Properties**.
2. In the **General** tab, click **Advanced**.
3. Make sure **Encrypt contents to secure data** is not selected and click **OK**.

Encrypted folders and files have green names, and can cause problems in your customization.



If you would like to make a totally new customization at this point, you can copy the contents of the `custom_example` folder into the `custom` folder and start making changes to this file.

In case you have copied your old customization into the new `custom` folder, please have a look at the new `customizationConfig.xml` file. You can find this file in the `<WebCenter_Instance>\custom_example` folder. Compare this new file to your old `customizationConfig.xml` file. The recommended way of proceeding is to copy the customized settings from your old file into the new one and use this new file in your custom folder. This way, you can use the new features that have been added.



**Note:** There may be sections in the `customizationConfig.xml` that are not actually used, these sections are typically greyed out in XML editors and can also be recognized because they are between: `<!--` and `-->`

### Changes to the customizationConfig.xml file

The new `customizationConfig.xml` file contains some additional features, as well as some features that have been removed. For example, the **MenuBackground** image is no longer used in 16.X.

Instead, the Menu background and font colors are calculated automatically based on a single Menu Color, allowing for much easier customization.

A new feature in WebCenter 16.X is the "full screen Background Image" for the Login page. Also, it is now possible to change the default background colors for the buttons.

### Changes required to make your customization work

The old customizations you have created will largely work in WebCenter 16.X. After you have copied your old customizations into the new `customizationConfig.xml` file and possibly made some additional changes, it is a good idea to go over the **Colors** section. Since various colors have changed and colors may have been added or removed, the color settings may have to be adapted.



**Attention:** After applying your customization, you may need to restart the Tomcat service.

### Moving your customization from WebCenter 18.X

#### 1. Backup phase (during uninstallation)

When uninstalling WebCenter 18.0 or later, in the Web server the installer inspects the list of Tomcat web instances and records the names of all the custom WebCenter instances while backing up 'custom' folder including the default one - *WebCenter\_Inst*.

*Common App Data* root folder is used to store the customization files backup on the target Web server host. The default path on most Windows server is

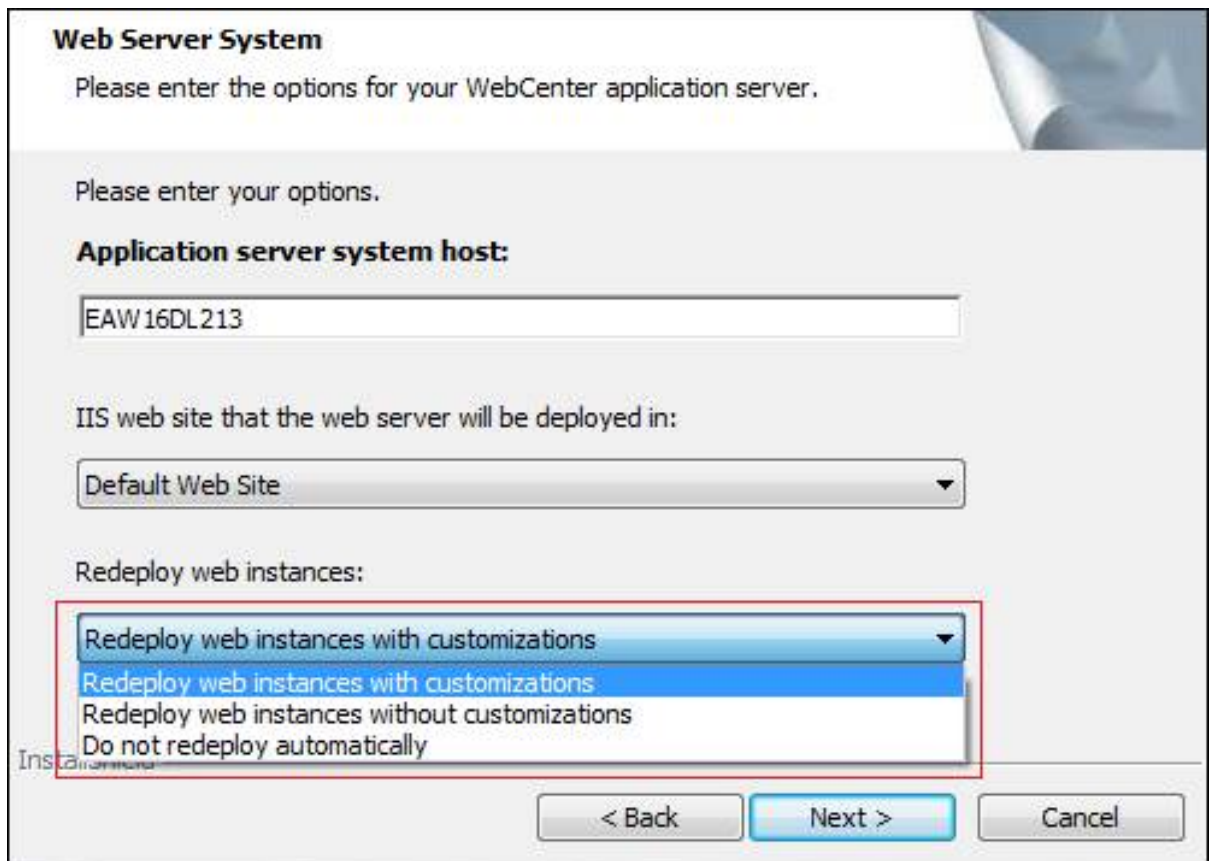
```
C:\ProgramData\Esko\WebCenter\WebInstanceCustomData
```

This folder is the root and each of the WebCenter web instance custom folder files are stored under a subfolder that takes the name of the appropriate instance.

The list of web instances that were found and later re-deployed is stored in the registry among the other WebCenter upgrade values.

#### 2. Re-deploy phase (during upgrade installation)

When performing an upgrade installation of a WebCenter Web server on the same host the installer gives the User the following options:



- **Redeploy web instances with customizations:** This is the default option. Re-deploys the custom instances marked during the previous uninstallation as well as the custom folders backup.
- **Redeploy web instances without customizations:** Re-deploys the custom instances marked during the previous uninstallation and does not retain the backed-up custom folders
- **Do not redeploy automatically:** Does not re-deploy any of the custom instances and their custom folder backups.

## 5.5. Customizing the WebCenter Using Customizations Page

In the **Admin > Preferences > Customizations** page, you can customize a number of WebCenter user interface elements visually.

The current customization for your instance is always visible when you first load the Customizations page. You can alter this customization, reset the customization to default (the standard WebCenter look) or load a theme, which gives you a starting point for your new customization.

You can customize images, colors, fonts and static text in this page.

You can also enable the **Forgot Password** option, that displays a **Forgot Password?** link on the WebCenter **Log In** page, and allows users to reset their password.

You can also customize WebCenter *using the [customizationConfig.xml](#) file.*

### Importing a Zip File with Customizations

Subfolders of 'custom' folder are limited to excel, externalwebconnection, help, image, javascript, languages, pdfapprovaltemplates, searchresulttemplates, styles, text, onboarding, country\_flags. File extensions in 'custom' folder are limited to xml, xls, xlsx, js, pdf, xsl, json, html, css, txt, png, jpeg, jpg, gif.

The ZIP will be unpacked to the customizationcustom folder of that WebCenter instance. Files will be overwritten or added to the customization folder. No files or directories will be removed.

Files in ZIP will be added or overwritten those on the system includes functionality to customize PDF approval templates.

### System History Logs

All imported folders and files from the ZIP file are recorded and stored in the **System History** page for Administrator users. Read this page on how to access the [records](#).

## 5.5.1. Viewing and Editing a Customization

Admin users can view and edit an existing customization on the Customizations page.

On the Customizations page the following items can be customized:

- **Images:** Application logo, Company logo, Product Line logo, Login page Background image, full-screen background image, and Favicon.
- **Colors:** Different colors can be set for various elements using a color picker.
- **Fonts:** The current font type can be changed and a base size for the font can be entered. Other sizes are calculated proportionally to allow for easier customization.
- **Static Text:** Customized messages on the login page, welcome page and contact page by uploading a valid XHTML file.

The following steps describe how to view and change the current WebCenter instance's customization:

1. Go to the WebCenter instance you would like to customize and open the Customization admin page.
2. In case any customization was done before, those files and values are displayed, if not, the page shows the standard WebCenter values.
3. Change images, colors, the font that is used and upload a static text file.
4. After making your changes save your customization by clicking on the **Save** button.



**Note:** After saving your customization, there is no need to restart the TomCat server, as the changes are applied upon saving or after loading a theme. Since WebCenter 16.X, the customization are re-applied by the system and the effect is not shown immediately. Reloading the customization may take as long as 2 to 5 minutes.

### Load a Theme

On the Customizations page, there is an option to load a theme. The first theme (Default) is the WebCenter default look.

1. Click **Load Theme** for a particular theme to load it.
2. After confirmation the theme is installed.



**Note:** Loading the theme, as applying a customization, may take up to a few minutes.

## Reset to Default Look and Feel

From the Customization page, it is always possible to revert back to the standard WebCenter look and feel.

1. Either click the button **Reset to Default** at the bottom of the page, or pick **Default** from the **Themes** section.
2. After confirmation, the default WebCenter look and feel is applied and used again.



**Note:** You may need to do a deep refresh of your browser to see the changes.

The option to reset to default is also available for several individual items, like colors and images. In this case, only that particular item will revert to the default look. Sometimes the 'default look' is to not show the element, for example the Product Line image is not there by default.

## Customize Logos and Hyperlinks

User can change several images on the Customizations page. An image can be changed by uploading a new file, or can be reset to the default WebCenter value. Any changes to the images are saved after clicking the page's main **Save** button.

There are five images (and their hyperlinks) on you can change:

- **Application Logo:** This is the top left logo and it appears on every page. It can be replaced by uploading a new image with approximately the same height (50 pixels). In case you use an AppLogo image higher than 50px, the top header will stretch along with this image. The recommended file type for this image is GIF or PNG. It is common practice to give the top logo a hyperlink to a more general web page (typically your company's home page). In WebCenter 16.X you can choose between showing the Application Logo in the Menu bar (default, more compact), or displaying it above the Menu bar for wider images, by applying the setting **Show the application logo above the menu bar**.
  - **Company Logo:** To the bottom right of the login page is the Esko logo (and its hyperlink to [www.esko.com](http://www.esko.com)). It can be replaced by uploading a new image with approximately the same height (28 pixels). We appreciate it when customers keep our logo visible.
  - **Product Line Logo:** To the bottom left, there is a placeholder for another image (ProductLineLogo). The standard installation does not put anything there. It is possible to upload a new image with a height of approximately 28 pixels.
  - **Background Image:** The default background image can be replaced with any image or with no image at all. This watermark appears only on the login page. It has no hyperlink. The recommended file type for this image is JPG or PNG. By disabling the setting **Use full screen background image**, the image is displayed as a smaller rectangle on the page as in older versions of WebCenter.
  - **Favicon:** The default favicon can be replaced with any image. It has no hyperlink. The recommended file type for this image is ICO, PNG, or GIF. Depending on the browser and its settings, the favicon will be displayed in the browsers' address bar, browser tab, browser history, bookmarks, and also as a desktop icon (for site-specific browsers).
1. To upload a new image click the **Upload** button and select an image from your system. Make sure you select an image with roughly the correct dimensions and resolution (72 dpi).
  2. To reset an image to the default value, click the **Reset** button. Note that sometimes there is no default value, like for the Product Line Logo.
  3. To add or modify an image link, enter a URL (starting with <http://>) in the **URL** field.

## Customize Colors

It is possible to change various colors on the Customizations page. Any changes to the colors are saved after clicking the page's main **Save** button.

There are several colors listed in the Colors section. Each with a title reflecting its purpose. For example, you can change the footer color on the login page by changing the value for **Login Footer Color**.



**Note:** Menu colors are all determined by the value set as **Menu Color**. The system automatically calculates shades of your chosen color and determines the font color (black or white) based on the optimal contrast with the calculated colors, to allow for easy and fast customization of the Menu bar.

1. In the **Colors** section, you can see an overview of the currently selected colors.
2. To change a color, you can either paste a hexadecimal color code in the color field, or you can use the color picker by clicking the color patch.
3. After opening the color picker you can move the little circle selecting the color around to change the saturation and brightness within the same hue. It is also possible to edit the hexadecimal color code manually, or to enter a new value for the RGB and HSB values.
4. After selecting a color, you can exit the color picker by simply clicking outside the color picker pop up, or by clicking the little **color circle icon**.
5. By using the **Reset** button, you can revert a specific color to the original WebCenter value.

## Customize Fonts

In the Fonts section, you can change the currently used font to a different font type and change the font base size.

Any changes to the fonts are saved after clicking the page's main **Save** button.

1. To change the font type, enter a new value in the **Font** field. Make sure you use a commonly used font, which is installed on your user's systems.
2. To change the font sizes, simply enter a new value in the **Base Font Size** field. All other font sizes (larger/smaller) are calculated based on this base font size, to allow for easier customization.

## Customize Static Text

There are a number of places in WebCenter where static text such as a marketing message is displayed. You can replace these sections with your own valid HTML pages. Any changes to the static text section are saved after clicking the page's main **Save** button.

Currently it is possible to replace the following sections:

- Welcome message on the login page (band above the main login section)
- Marketing message on the login page
- Marketing message on the welcome page
- Contact page (linked on top of each page)

The Static Text section shows an overview of the static text customizations that are currently applied. The static text section can be filled in with HTML pages containing text, images and inline CSS. In case no customization has been done, you will see "Default" next to the static text name. In case there is a customization, **Preview** is visible and a **Reset** button is also shown.

1. To upload a new static text file, click the **Upload** button and select a valid HTML file from your system.



**Note:** Ensure that your HTML page does not contain !DOCTYPE else it could affect the functioning of WebCenter.

2. To preview a static text file, click the **Preview** button.
3. To reset a static text item and remove the customization, click the **Reset** button.

## Forgot Password

To add a **Forgot Password?** link to the WebCenter **Log In** page, do the following:

1. Go to **Admin > Preferences > Customizations**.
2. At the bottom of the **Customization** page, select **Show Forgot Password link** in the **Other** section.
3. Click **Save**.

Alternatively, you can add this link when *customizing the user interface*.

When you click the **Forgot Password?** link, you are asked to supply user name or email address. You are then sent an email with a temporary password and a link to the **Log In** page.

After logging in, you are prompted to change the password.

## Fixed Navigation Bar

To fix the Navigation / Menu bar in the WebCenter application, do the following:

1. Go to **Admin > Preferences > Customizations**.
2. At the bottom of the Customization page, select **Use Fixed Navigation Bar** in the **Other** section.
3. **Save** the changes.

When a user scrolls down any page, the navigation bar is fixed on the top of the page.

## 5.6. Customizing the Look and Feel of WebCenter Using the customizationConfig.xml file

---

You can customize WebCenter's look and feel using the `customizationConfig.xml` file. All you need to do to apply your customizations is to modify this file accordingly and save it. Reload your pages to see your changes reflected.

Any settings from the `customizationConfig.xml` file overrule default WebCenter application settings.

The `customizationConfig.xml` file should be placed into the customization directory on your Web server instance, which is `<WebCenter_Instance>\custom` directory (such as `c:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\custom`).

In the following section we will list what is possible to customize and how to achieve that.

For your convenience there is a `<WebCenter_instance>\custom_example` directory in the web server instance including a customization example. This directory contains a commented

customizationConfig.xml file and necessary additional files which will help you easily try most of the customizations described in this documentation.

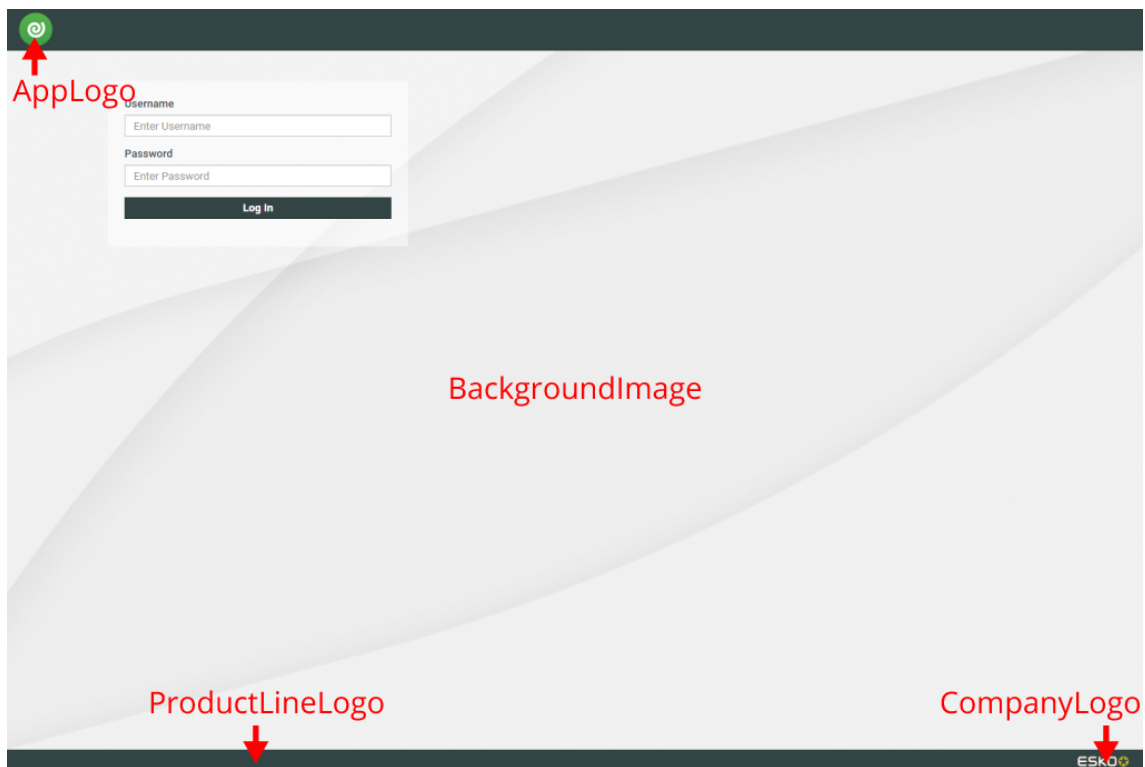
To use the example files, simply copy content from this directory into the <WebCenter\_Instance> \custom directory.

### 5.6.1. Customizing Logos and their Hyperlinks

A number of logos are displayed in WebCenter, many of them with a clickable hyperlink. You can change the logo image and the hyperlink target.

#### Customize Logos and Hyperlinks

In a standard WebCenter installation, the login window will look more or less like in the picture below (the actual appearance depends on your screen settings, the browser used and the version of WebCenter you have installed).



There are four images (and their hyperlinks) on this page you can change:

- The top logo **WebCenter icon**. This logo appears on every page. It can be adapted by replacing it with any image of approximately the same height (50 pixels). In case you use an AppLogo image higher than 50px, you will stretch the top header along with this image.  
Once the user is logged in (and not before that), this image can be further changed to reflect your relationship. It is common practice to give the top logo a hyperlink to a more general web page (typically your company's home page).



- The Background image (BackgroundImage) can be replaced with any image or with no image at all. This image ONLY appears on the login page. It has no hyperlink. Since WebCenter 16.X, it can be set as a full-screen image as well.
  - To the bottom left, there is a placeholder for another image (ProductLineLogo). The standard installation does not put anything there.
  - To the bottom right (CompanyLogo) is the Esko logo (and its hyperlink to [www.esko.com](http://www.esko.com)). It can be replaced just like any other logo. We appreciate it when customers keep our logo visible. Esko stands for quality, innovation and communication. Your site will be more appreciated if you reinforce it by showing what technology you are using for servicing your customers and partners.
1. To customize the logos on the log on page, add the following tags to `customizationConfig.xml`:

```
<AppLogo
  RelPath="images/DEFAULT_WebCenter-banner.png"
  href="homepage.jsp" />
<CompanyLogo
  RelPath="images/DEFAULT_logo_esko.png"
  href="http://www.esko.com" />
<BackgroundImage
  RelPath="images/BackgroundImage.png" />
<FloatAppLogo
  value='false' />
<FullScreenBackground
  value='true' />
```

The settings **FloatAppLogo** and **FullScreenBackground** can be used to move the Application Logo above the Menu bar and set the Background Image to full-screen respectively.

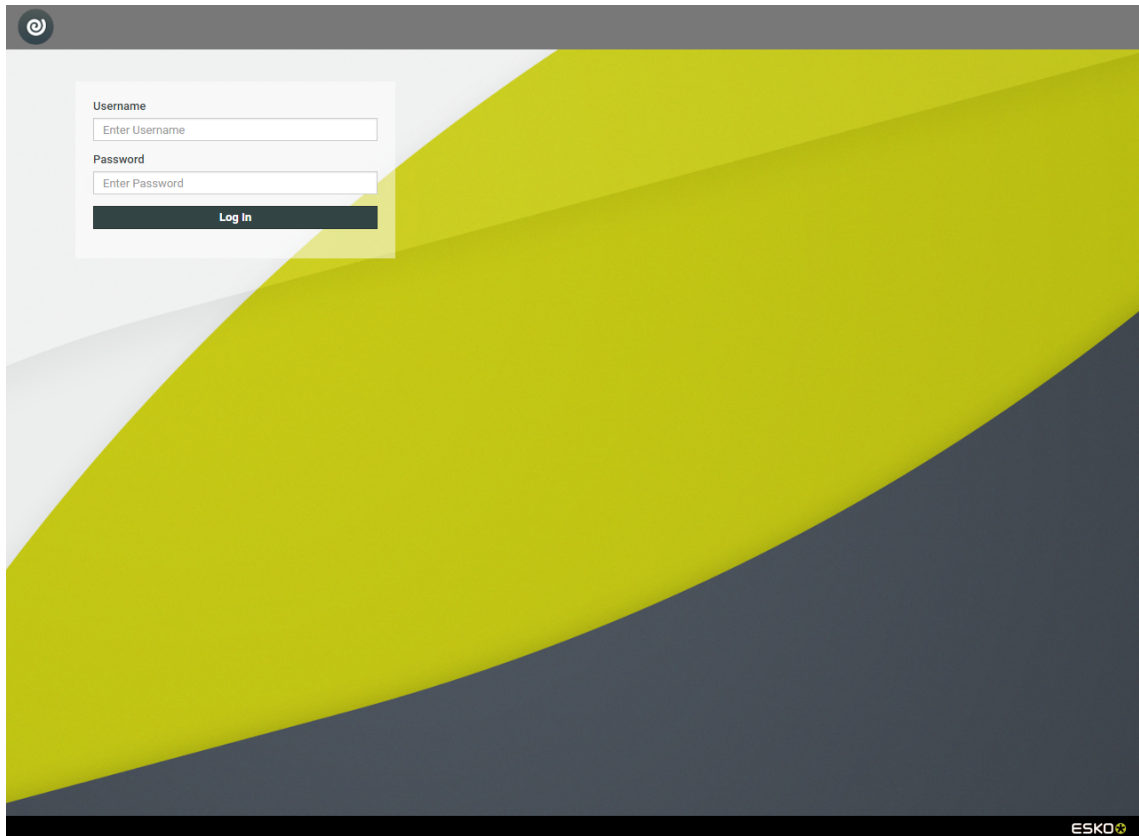
The following attributes can be used to provide the required image and optionally set the hyperlink:

- **RelPath** – defines the path of the logo image relatively to the custom directory.
- **href** – if the logo is also a hyperlink, you can specify its target.

2. To customize the logo for the normal pages, you can also use the following tag:

```
<AppLogo
  RelPath="images/AppLogo.png"
  href="http://www.esko.com"/>
```

The following is an example of a Login page with customized Application Logo and Background Image. Note that in this case the header and footer colors have also been customized.



### Customize Logo for a User or Company

Besides from customizing different WebCenter instances, it is also possible to create different customizations inside the same instance. Using this type of customization you are able to customize the **AppLogo** image, in the top left corner, for specific users or companies.

1. Inside your WebCenter instance's `custom` folder, you can create individual folders. Each of these folders should contain their own `customizationConfig.xml` file and a folder called `images` in which the logo image is placed. These folders should be named according to the following conventions:

- **USER** to apply for a user with a specific user name,
- **Company\_** to apply for a specific company,
- **Company\_Location** to apply for a specific company and location.

For example, for a user called "John Doe" (with the user name "JOHNDOE") at the company "Esko", that has two locations: "Ghent" and "Singapore", you should name the folders:

- JOHNDOE (the user name) when applying the customization to that user specifically,
- Esko when applying the customization to all users at the "Esko" company,
- Esko\_Ghent when applying the customization to users at the "Esko" company and "Ghent" location.



**Note:** Please make sure you use the exact user, company and location names, keeping the correct case and any spaces or special characters they may contain. For example, user names should be in capital letters.

- The customizationConfig.xml file should only contain one tag:

```
<AppLogo
  RelPath="images/AppLogo.png"
  href="http://www.esko.com"/>
```

The following attributes can be used to provide the required image and optionally set the hyperlink:

- RelPath - defines the path of the logo image relatively to the custom directory.
- href - if the logo is also a hyperlink, you can specify its target.

In the example a special "JOHNDOE" folder has been created. This folder contains a customizationConfig.xml file and an images folder with a different logo image. When the user with the user name "JOHNDOE" now logs in, he will see his customized **AppLogo** image. All the other users will still see the image used in the top level customization.

### 5.6.2. Custom Language Flags for Text Content

You can now use customized flag images for the Master and Translation languages used in the Packaging Content Management (PCM). To use custom languages for the master or translation languages list, customized country flags can be stored in the custom folders in the Web Server. Since the images are available in the custom folder, these images are retained after every WebCenter upgrade.

To use custom images for flags for each of the languages,

- Store the custom images in custom/country\_flags and custom/country\_flags/big folder in the WebServer.
- Along with this language list is also required to be updated to use these flags.
- Ensure full path for the flag is mentioned in language list excel sheet for the image as custom/country\_flags/file name.

LANGUAGE_CODE	DESCRIPTOR	FLAG_FILENAME
fr-CA	French - Canada	custom/country_flags/CA.png
fr-FR	French - France	FR.png



**Note:** Flags which are available with WebCenter as default are mentioned with file name only.

### 5.6.3. Change the Color Scheme

The WebCenter color scheme has been chosen to be business-oriented and to reflect Esko’s corporate identity.

It is possible to use your company's brand colors in WebCenter. The application uses several colors consistently throughout the application and each one of them can be replaced with another color. Use standard HTML-formatted color definition (e.g. #334444).



**Tip:**

The color definitions consist of 6 hexadecimal numbers, 2 for Red, 2 for Green, and 2 for Blue. The easiest method for determining the hexadecimal RGB values of a color is to create it in the Color Picker in Photoshop. You can copy and paste the hexadecimal values from the # field.

- Add the following tag to the customizationConfig.xml file:

```
<Colors> <Color id="1" hexVal="FF0000"/>
</Colors>
```

#### Color Scheme Reference

ID	Default Value	Used in
8	fafafa	Project Selected Folder
13	334444	Main Header and Menu
15	fbfbfb	Footer Background Color
16	334444	Footer Login Page
18	334444	Primary Button
19	ffffff	Default Button
20	5f7e7e	Link Color
21	3e5353	Link Hover Color

### 5.6.4. Change the Fonts

Fonts in WebCenter are based on a similar concept as the color scheme. One font in varying sizes is consistently used through the application.

The default font sizes were chosen to optimally fit into the various WebCenter pages. You only need to adapt the base font size and all the other font sizes adapt proportionally.

Add the following tag into the `customizationConfig.xml` file to change the font family to Open Sans and increase the base font size.

```
<Font name="Opens Sans">
  <Size id="3" pxVal="14"/>
</Font>
```

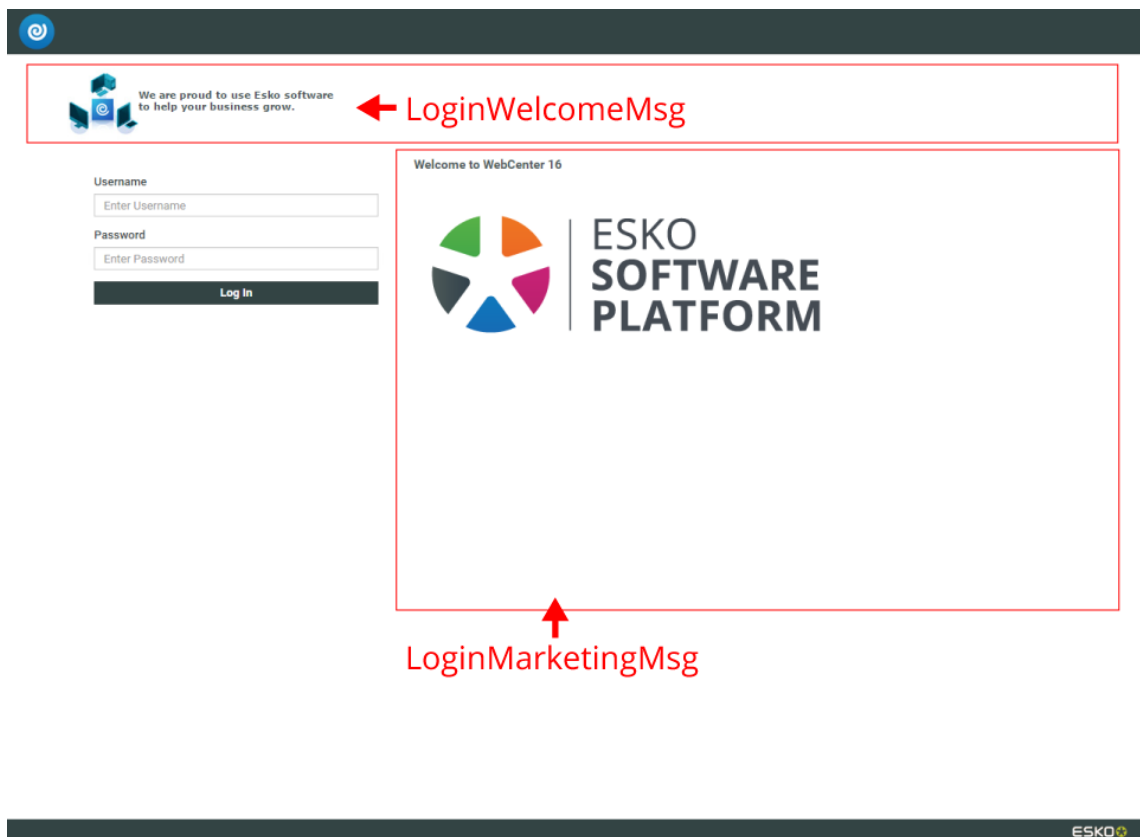
### 5.6.5. Customize Static Text

There are a number of places in WebCenter where static text such as a marketing message is displayed. The software provides a straightforward mechanism for you to replace the text with your own HTML pages.

#### What Static Text Items Can You Customize?

Currently it is possible to replace the following (see screen shots below):

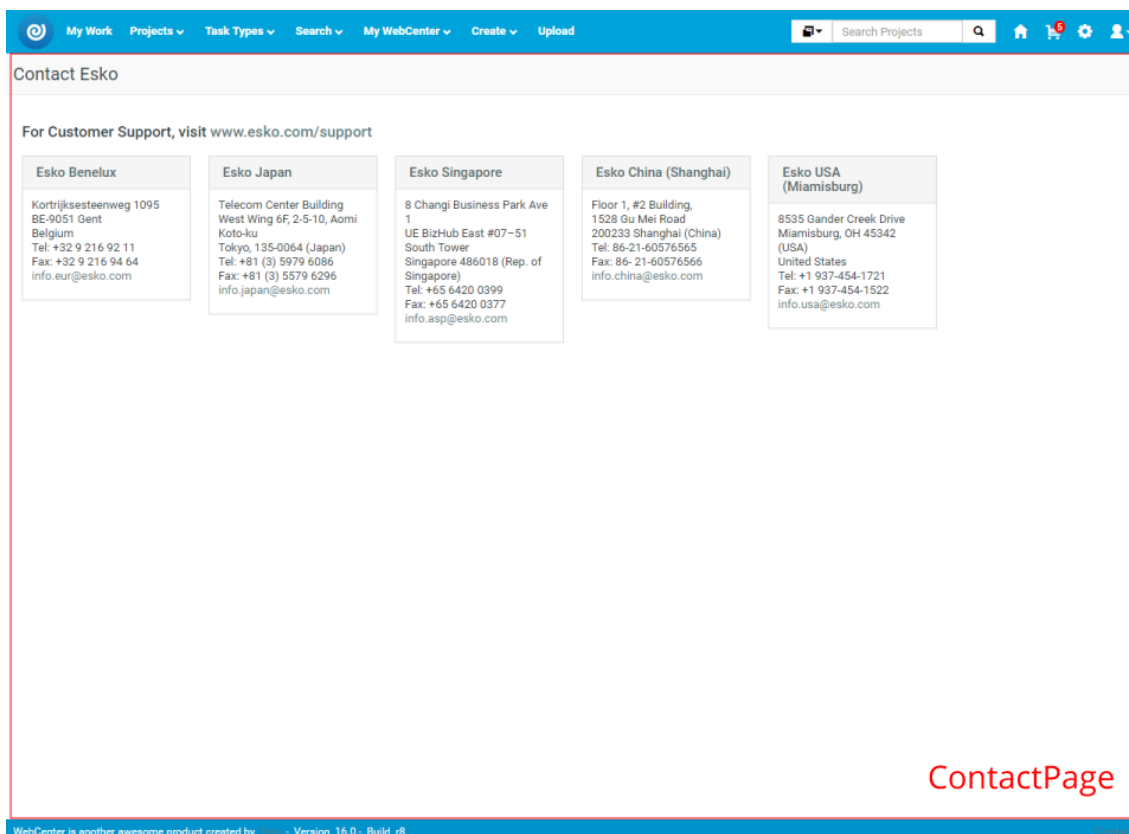
- Welcome message on the Login page.
- Marketing message on the Login page.
- Marketing message on the Welcome page.
- Contact page (linked in the footer, at the bottom of each page)



The screenshot displays the WebCenter application interface. At the top, a blue navigation bar includes a home icon, a menu with items like 'My Work', 'Projects', 'Task Types', 'Search', 'My WebCenter', 'Create', and 'Upload', a search bar for projects, and icons for home, notifications, settings, and user profile. Below the navigation bar, a 'Welcome to WebCenter' message is shown. The main content area features six colored tiles arranged in a 2x3 grid:

- Documentation** (Teal): 'You can find a lot of information in the official WebCenter Documentation.' Buttons: 'Complete Documentation', 'Customization Guide'.
- Learn** (Dark Red): 'Struggling with Static Text Customization? Try this free online course!' Button: 'HTML & CSS Basics'.
- Encoding** (Brown): 'You can use the following tool to properly encode your special characters.' Button: 'XML Encoder'.
- Knowledge Base** (Dark Teal): 'Find interesting articles in the Knowledge Base.' Buttons: 'Search', 'Customization Articles'.
- Validation** (Red): 'Having problems creating a valid XHTML file? Use these validators to pinpoint the problem.' Buttons: 'XHTML Validator', 'CSS Validator'.
- Movies** (Dark Brown): 'Watch some fun videos!' Button: 'Esko YouTube'.

At the bottom right of the main content area, the text 'HomeMarketingMsg' is displayed in red. The footer of the page contains the text 'WebCenter is another awesome product created by Esko - Version 16.0 - Build #8' and a 'Contact' link.



## Customize a Static Text Item

There are some limitations you need to take into account when preparing your HTML page. You need to make sure that your HTML page body is also valid XHTML. Therefore, the rules for HTML tags are a bit stricter. There are many tools and online Web pages where you can validate your HTML, such as <http://validator.w3.org/>. If the document body is not valid XHTML you may encounter runtime errors when accessing your customized page.

Note that the default WebCenter stylesheet is applied to the whole page, as well as to your custom HTML static text. That might be confusing because your text could look different than expected when inserted as static text on the page. For example, links might look bigger. To avoid such effects, can either use inline styling in your HTML, or set styles in your CSS to !important. For example:

```
a {font-size:15px !important; color:#f00 !important;}
```

- To replace the pieces of static text, add the following tags into the customizationConfig.xml file:

```
<StaticText>
  <LoginWelcomeMsg RelPath="text/loginWelcomeMsg.html"/>
  <LoginMarketingMsg RelPath="text/loginMarketingMsg.html"/>
  <HomeMarketingMsg RelPath="text/homeMarketingMsg.html"/>
  <ContactPage RelPath="text/contactPage.html"/>
</StaticText>
```

Each of the StaticText sub-tags replaces the corresponding static text with your custom HTML document. Using the RelPath attribute, specify the path to your HTML document relative to the custom directory.

### Example: Customizing Static Text

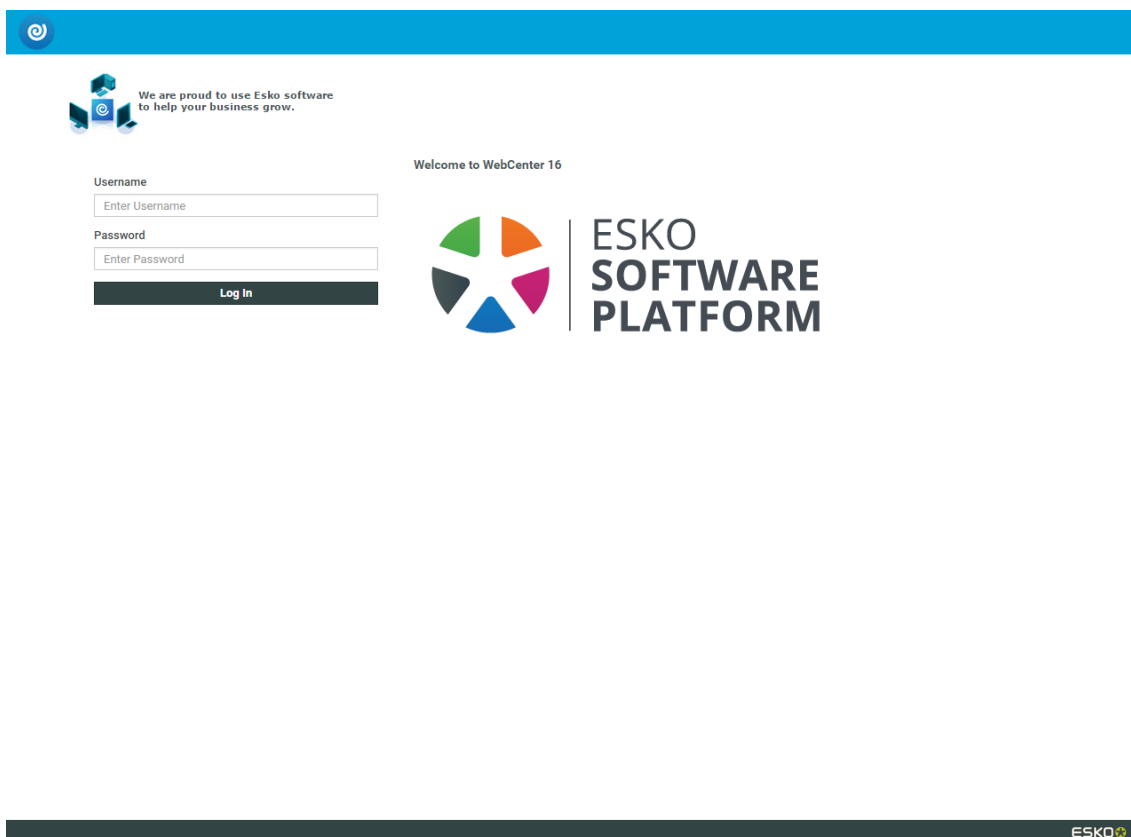
Let's look at the following HTML with which we want to replace the Login page Welcome message. If you put the content of our HTML into the XHTML document as shown below and it passes the validation test, WebCenter should display your HTML correctly.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/
DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en-us">
  <head>
    <title>Login Page Marketing Message</title>
    <style type="text/css">
      #welcome p {color:#4a5656;font-family:Verdana,Arial,Helvetica,sans-serif;font-
size:11px;font-weight:bold;}
      #welcomeimage {align:left;}
    </style>
  </head>
  <body>
    <table>
      <tr>
        <td id="welcomeimage">
          <a href="http://www.esko.com/webcenter">

          </a>
        </td>
        <td id="welcome" width="220px">
          <p>We are proud to use Esko software to help your business grow.</p>
        </td>
      </tr>
    </table>
  </body>
</html>
```

Note that all relative references that you use in HTML should be relative to the Web server root directory which is the WebCenter instance directory, such as WebCenter\_Inst. Like in the example above, the path for images needs to be relative.





### 5.6.6. Customize the Language Files

You can customize your own language files or add completely new language translations. The example below shows how to modify the customization configuration file to modify the default English language translation:

1. In the `customizationConfig.xml` file, add the following language tag:

```
<Languages RelPath="languages">
  <Language key="en" zipencoding="Cp437"/>
</Languages>
```

The `RelPath` attribute specifies the directory where the system looks for customized language files. `RelPath` should be specified relative to the custom directory. In this case, you are referring to the `languages` subdirectory in the `custom` directory.

The `Language` sub-tag has the same attributes as the corresponding tags in the default `config.xml` file. Also, the naming convention and structure of the language files are the same as for the standard language files.

2. Edit the `wcstrings_en.xml` file in the `languages` subdirectory to reflect your new language strings.

If you are not familiar with the default language files structure and usage, the easiest method is to copy the language file (from the default location `<WebCenter_Instance>\languages`) you

want to modify to a subdirectory of the custom directory, such as `wcstrings_en.xml` in `custom\languages`. Edit the file and remove all tags except the ones you want to change.

The edited results look like the example below and it can contain one or a multitude of strings (you only need to add the ones you wish to modify):

```
<?xml version="1.0" encoding="UTF-8"?>
<language xml:lang="en-us">
  <application name="JSP_Strings">
    <lang_string key="WCAUTHOR" value="WebCenter is another awesome product created by"/>
  </application>
</language>
```

As you can see, we have changed the text in the footer lower left corner. The picture below shows the result of our customization.



### 5.6.7. Forgot Password

To add a **Forgot Password?** link to the WebCenter **Log In** page through the `customizationConfig.xml` file, do the following:

1. Open the `customizationConfig.xml` file in an XML editor.  
See [Customizing the Look and Feel of WebCenter Using the customizationConfig.xml file](#) on page 1081 to know where to find this file.
2. Add the following XML code between the `WebCenterCustomizationConfig` XML tags:

```
<ForgotPassword show="1"/>
```

3. Save the file and place it into the customization directory on your Web server instance.

When you click the **Forgot Password?** link, you are asked to supply user name or email address. You are then sent an email with a temporary password and a link to the **Log In** page.

After logging in, you are prompted to change the password.

**Note:**

The e-mail uses the e-mail customization framework to customize/translate the messages sent to the user.

You can find an example of the data that can be used in the e-mail in `C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Example/user`. This folder contains:

- `reset_password_example_body.xml`
- `reset_password_example_source.xml`
- `reset_password_example_subject.xml`

You should copy these files to `C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Custom/user` before editing them.

For more information about customizing e-mails, see [Customizing the E-Mail Notifications](#) on page 1118.

## 5.6.8. Fixed Navigation Bar

To fix the Navigation / Menu bar in the WebCenter application, do the following:

1. Go to **Admin > Preferences > Customizations**.
2. At the bottom of the Customization page, select **Use Fixed Navigation Bar** in the **Other** section.
3. **Save** the changes.

When a user scrolls down any page, the navigation bar is fixed on the top of the page.

## 5.7. Customizing the WebCenter Menus

---

You can customize the WebCenter menus to tailor what users see to what they need to do in WebCenter.

This way, you can make sure their user experience is as smooth as possible.

You can:

- remove unused menu items to simplify the user interface,
- add menu items that link to frequently used WebCenter pages not already part of a menu,
- change which page a menu item links to,
- remove unwanted action buttons from tables,
- add custom action buttons.

You can assign custom menus to users and / or companies (see "Edit a User" and "Edit a Company" in the Administration Guide).



**Tip:** To see what a menu looks like, hover on it in the WebCenter user interface. This shows the sub menus.

You can manage custom menus through the WebCenter user interface. Log in as an Admin, and go to **Admin > Preferences > Menus**.

See [Menus](#) on page 107 in the Administration Guide for details.

## 5.7.1. Create a Custom Menu

You can create a custom menu for each category of users, to make it more convenient for them.



**Note:**

Menus are XML files, so you will need an XML editor (you can find various freeware XML editors on the internet, for example XML Marker or Notepad++).

However, if you are not comfortable using XML, you can also create a custom menu through the WebCenter user interface (see [Create a Custom Menu through the WebCenter User Interface](#) on page 107 in the Administration Guide).

You will need to:

1. Determine the menu items a particular group of users would require for efficient functioning.
2. [Download the default menu](#) to use as a starting point.
3. In an XML editor, [remove the menu items](#) that are not necessary for those users.  
This allows you to simplify the WebCenter interface, especially for occasional users. For example, you can create a menu that only contains **My Work** for approval users.
4. [Add custom menu items](#), to link to the WebCenter pages of your choice.  
This allows you to make the pages most used by your users accessible. For example, you can add menu items linking to saved searches, or to project creation from a specific project template.
5. When you are done editing the menu file, save the menu with a name.
6. Upload your custom menu:
  - a) Click the **Menu Upload** button on the **Menus** page,
  - b) In the **Menu Upload** page, browse to your XML file,
  - c) Give your custom menu a **Name** and a **Description**,
  - d) Click **Upload**.
7. Assign the menu to the users (or company) you created it for.
8. Log out and log in to WebCenter as one of the users to which you gave the custom menu, and check whether the menu works.

### Download the Default Menu

You will use the default menu as a basis for creating custom menus.

1. Download the default menu:
  - a) On the **Admin > Preferences > Menus** page, click the **Download Menu** link corresponding to the **Default** menu.
  - b) The (XML) menu file will typically open in your browser. You need to save it to a file. Use for example:
    - **File > Save As** in Microsoft Edge,
    - **File > Save Page As** or **Ctrl+S / Command+S** in Firefox,

- **File > Save As** or **Command+S** in Safari (make sure you select **Page Source** as **Format**),
- **Ctrl+S / Command+S** in Google Chrome.



**Note:** Do not copy and paste the XML from your browser as this can give corrupted XML.

2. Open the menu file you downloaded in your XML editor.

See [Structure of the XML Menu File](#) on page 1095 to familiarize yourself with the file.

## Structure of the XML Menu File

Each menu and menu entry is enclosed in a **menuitem** tag.

```

- <menus>
  <!-- The Four Main Menus -->
  - <menuitem>
    <name>NON_ADMIN</name>
    <labeltag>HOME_TAG</labeltag>
    <url>homepage.jsp</url>
    <!-- My work menu -->
    - <menuitem>
      <name>MY_WORK</name>
      <labeltag>MY_WORK_TAG</labeltag>
      <url>mytodolist.jsp</url>
      - <menuitem>
        <name>MYTODOLIST</name>
        <labeltag>MY_WORK_TAG</labeltag>
        <url>mytodolist.jsp</url>
      </menuitem>
      - <menuitem>
        <name>MY_CHECKOUTS</name>
        <labeltag>MY_CHECKOUTS_TAG</labeltag>
        <url>mycheckouts.jsp</url>
      </menuitem>
    </menuitem>
    <!-- Projects menu -->
    - <menuitem>
      <name>PROJMGMENT</name>
      <labeltag>PROJMGMENTPROJS_TAG</labeltag>
      <url>myfavoriteproj.jsp</url>
      - <menuitem>
        <name>MY_FAVORITEPROJS</name>
        <labeltag>MY_FAVORITEPROJS_TAG</labeltag>
        <url>myfavoriteproj.jsp</url>
      </menuitem>
      - <menuitem>
        <name>MY_PROJECTS</name>
        <labeltag>MY_PROJECTS_TAG</labeltag>
        <url>myprojects.jsp</url>
        - <scope>
          <project_managers/>
        </scope>
      </menuitem>
      - <menuitem>
        <name>MY_PROJECTS_IN</name>
        <labeltag>MY_PROJECTS_IN_TAG</labeltag>
        <url>iamprojectmember.jsp</url>
      </menuitem>
    </menuitem>
  </menuitem>
  </menus>
  
```

You can expand and collapse menus and menu entries (use + to expand and - to collapse).

```

- <menuitem>
  <name>NON_ADMIN</name>
  <labeltag>HOME_TAG</labeltag>
  <url>homepage.jsp</url>
  <!-- My work menu -->
+ <menuitem></menuitem>
  <!-- Projects menu -->
+ <menuitem></menuitem>
  <!-- Tasks menu -->
+ <menuitem></menuitem>
  <!-- Search menu -->
+ <menuitem></menuitem>
  <!-- My webcenter menu -->
+ <menuitem></menuitem>
  <!-- Creation Menu -->
+ <menuitem></menuitem>
  <!-- Add Document Menu -->
+ <menuitem></menuitem>
</menuitem>

```



**Tip:** The comments between <!-- and --> indicate what the tags below correspond to.

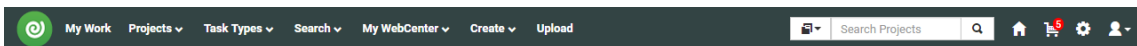
### Main Row Menus

The first <menuitem>, "NON\_ADMIN", contains the menu items corresponding to the top menu bar (when not in Admin mode).

```

- <menuitem>
  <name>NON_ADMIN</name>
  <labeltag>HOME_TAG</labeltag>
  <url>homepage.jsp</url>
  <!-- My work menu -->
+ <menuitem></menuitem>
  <!-- Projects menu -->
+ <menuitem></menuitem>
  <!-- Tasks menu -->
+ <menuitem></menuitem>
  <!-- Search menu -->
+ <menuitem></menuitem>
  <!-- My webcenter menu -->
+ <menuitem></menuitem>
  <!-- Creation Menu -->
+ <menuitem></menuitem>
  <!-- Add Document Menu -->
+ <menuitem></menuitem>
</menuitem>

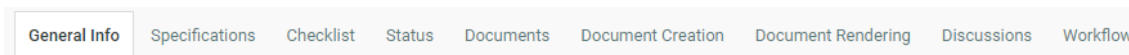
```



**Note:** It is not possible to edit the Admin menus.

### Task Type Details

The menu items inside the "TASKTYPEDETAILS" <menuitem> (under <!-- Task type details menu -->) correspond to the tabbed menu you get when editing a task type (only for users who can create a task type).



You will probably not need to change this.

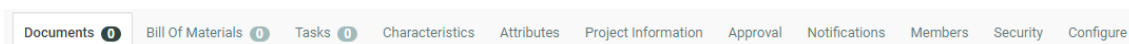
### Project Details

The menu items inside the "PROJDETAILS" <menuitem> correspond to the tabbed menu you get on the Project Details page.



### Template Details

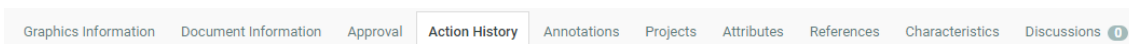
The menu items inside the "TEMPLATEDetails" <menuitem> correspond to the tabbed menu you get on the Template Details page (only for Admin users).



You will probably not need to change this.

### Document Details

The menu items inside the "DOCDETAILS" <menuitem> correspond to the tabbed menu you get on the Document Details page.



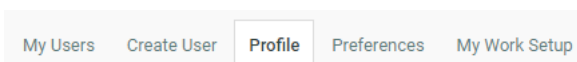
### Task Type Details (Read Only Mode)

The menu items inside the "TASKTYPEDETAILSRO" <menuitem> correspond to the tabbed menu you get when looking at task types in read only mode.

You will probably not need to change this.

### My Users

The menu items inside the "MYUSERS" <menuitem> correspond to the tabbed menu you get when going to **My WebCenter > My Users** and editing a user (for Project Managers with the **User Can Create User** right).



## Remove Unused Menu Items

Remove the menus and / or menu entries that are not necessary for your target users.

- For each item to remove, delete everything between **<menuitem>** and **</menuitem>**, including the **<menuitem>** and **</menuitem>** tags.

```

- <menuitem>
  <name>PROJMGMENT</name>
  <labeltag>PROJMGMENTPROJS_TAG</labeltag>
  <url>myfavoriteproj.jsp</url>
- <menuitem>
  <name>MY_FAVORITEPROJS</name>
  <labeltag>MY_FAVORITEPROJS_TAG</labeltag>
  <url>myfavoriteproj.jsp</url>
</menuitem>
- <menuitem>
  <name>MY_ALLPROJECTS</name>
  <labeltag>MY_ALLPROJECTS_TAG</labeltag>
  <url>myallprojects.jsp</url>
- <scope>
  <project_managers/>
</scope>
</menuitem>

```




**Attention:** Make sure you are very precise and delete only corresponding **<menuitem>** and **</menuitem>** tags, so as not to break the XML structure!


## Add Custom Menu Items

- To add a top level menu, add a **<menuitem>** element, with the following elements in it:

<p>&lt;name&gt;</p>	<p>Choose a unique name for your menu.</p> <p>This name is only used to identify the menu in the XML file.</p>
<p>&lt;labeltag&gt;</p>	<p>Enter the language file tag corresponding to your new menu. You can use a tag already existing in the language files, or a new tag.</p> <p>This makes displaying your new menu in multiple languages possible: you enter the tag here, and in each language file you associate that tag with the text string that will be shown for that menu in that language.</p> <p>If for example you are adding a menu linking to a(n existing) saved search showing rejected documents:</p> <ol style="list-style-type: none"> <li>1. Enter "REJECTED_DOCUMENTS_TAG" as &lt;labeltag&gt;,</li> <li>2. Associate that tag with the "Rejected Documents" string in your English language</li> </ol>



	<p>file, with "Documents Rejetés" in your French language file, etc.</p> <div style="border: 1px solid #ccc; padding: 5px;">  <b>Note:</b> If you are using a new tag, you need to add it to the <b>custom</b> language files, otherwise you will lose it with every upgrade.         </div> <p>See <a href="#">Customize the Language Files</a> on page 1091 for more information about customizing the language files.</p>
<p>&lt;url&gt;</p>	<p>Enter the page which will be shown when clicking the new menu.</p> <p>Typically this will be a standard WebCenter page which you otherwise would get by more complex navigation.</p>
<p>&lt;scope&gt;</p>	<p>Define which type of users will see the new menu.</p> <ul style="list-style-type: none"> <li>• Enter &lt;project_managers/&gt; if you only want Project Managers to see it.</li> <li>• Enter &lt;admin_users/&gt; if you only want Administrators to see it.</li> <li>• Enter &lt;normal_users/&gt; if you only want normal users to see it.</li> <li>• Enter &lt;project_creators/&gt; if you only want Project Creators to see it.</li> </ul> <p>If you want three types of users to see the menu, enter them here. For example:</p> <div style="border: 1px solid #ccc; padding: 5px;"> <pre>&lt;scope&gt;   &lt;admin_users/&gt;   &lt;project_managers/&gt;   &lt;project_creators/&gt; &lt;/scope&gt;</pre> </div> <p>If you want <b>all</b> user types to see it, don't enter a scope at all.</p>

 **Note:** Do not use spaces in the XML values.

For example, to create a menu showing the rejected documents saved search to all users, use this:

```
<menuitem>
  <name>REJECTED_DOCUMENTS</name>
  <labeltag>REJECTED_DOCUMENTS_TAG</labeltag>
  <url>dosavedsearch.jsp?searchName=RejectedDocuments</url>
```

```
</menuitem>
```

- To add a menu entry under a top level menu, place that bit of XML between the <menuitem> tags of the top level menu, as in the example below.

```
<menuitem>
  <name>SEARCH</name>
  <labeltag>SEARCH_TAG</labeltag>
  <url>projsearch.jsp</url>
  <menuitem>
    <name>REJECTED_DOCUMENTS</name>
    <labeltag>REJECTED_DOCUMENTS_TAG</labeltag>
    <url>dosavedsearch.jsp?searchName=RejectedDocuments</url>
  </menuitem>
</menuitem>
```

## 5.7.2. Examples

### Going to Projects I Am invited to in One Click

By default, the **Projects** menu of a normal (non Project Manager) user contains **Favorite Projects** and **Projects I am invited to**.

You can optimise the menu options by removing the **Favorite Projects** and **Projects I am invited to** entries, and make clicking on the **Projects** menu go directly to **Projects I am invited to** (instead of going to **Favorite Projects**).

This makes going to **Projects I am invited to** a one-click operation.

1. Add a **Projects** menu (with no entries) going directly to **Projects I am invited to** for normal users: Just before...

```
<menuitem> <name>PROJGMNT</name>
          ...
```

add:

```
<menuitem>
          <name>PROJECTS_NONPROJGMNT</name>
          <labeltag>PROJGMNTPROJS_TAG</labeltag>
          <url>iamprojectmember.jsp</url> <scope>
          <normal_users/> </scope>
        </menuitem>
```



**Note:** The "PROJGMNTPROJS\_TAG" <labeltag> already exists in the language files with the value "Projects" (in the English file), so you don't need to add it.

2. Change the scope of the old **Projects** menu by adding a <scope> element:

```
<menuitem> <name>PROJGMNT</name>
          <labeltag>PROJGMNTPROJS_TAG</labeltag>
          <url>myfavoriteproj.jsp</url> <scope>
          <admin_users/> <project_managers/> </scope> ...
```

3. Save and upload your custom XML file.

## Customizing the Interface for Project Requests

Often you might want to allocate a separate menu item for creating a project (or requesting a project) based on a fixed template.

Depending on your business process, you can use for example:

- New Sales Request
- Order Samples
- Create New Book
- Add Product
- New Campaign

If you only ever have one type of project request, you can [Create a Project from a Fixed Template](#) on page 1101.

If you have different project request types, [Create a Project from Different Templates](#) on page 1102.

You can also [Show Projects Created from the Request Template\(s\)](#) on page 1105 and [Add Your Requests to Your My Work Page](#) on page 1106.

### Create a Project from a Fixed Template

If your users only need to create one type of project (request), you can add a button that will bring them directly to the project creation page, with the template they need already selected.

1. In your XML menu file, remove all menu items the requesters won't need.
2. Add a menu item (called for example "New Request"), that links to creating a project based on an existing template (called for example "New Box").

```
<menuitem> <name>NEW_REQUEST</name>
  <labeltag>NEW_REQUEST_TAG</labeltag>
  <url>projmgmntnewproject.jsp?template=New%20Box</url> <scope>
  <project_managers/> </scope> </menuitem>
```



**Note:** Make sure you enter your template name precisely (the <url> is case sensitive and needs %20 to represent a space).

3. Save and upload your custom XML file.
4. Assign the menu to the users (or company) you created it for.
5. Add a language string to the language files (see [Add Custom Menu Items](#) on page 1098 and [Customize the Language Files](#) on page 1091).
6. Restart TomCat.
7. Log in to WebCenter as one of the users to which you gave the "New Request" menu, and check whether:
  - you see the "New Request" menu,
  - clicking the menu opens the project creation page, with the "New Box" template selected.



**Note:**

If this does not work, check all previous steps for spelling mistakes.

- If you don't get the new menu item, you have added the information incorrectly to the XML file.
- If you get an empty menu item (no text), your XML file is correct but your language file is not.
- If all is scrambled, you have broken the XML. Go back to a previous version.

**Create a Project from Different Templates**

If your users need to create several types of projects (requests), you can add a button that will bring them to the project creation page, with a selection of templates to choose from.

1. Mark the templates they will need to choose from using a characteristic:
  - a) Log in to WebCenter as an Admin and go to **Admin > Characteristics**.
  - b) On the **Characteristics** page, make sure **ROOT** is selected and click **New Characteristic**. Create a characteristic called "Request".
  - c) Go to one of the template the requesters will use (for example "New Box") and add the "Request" characteristic to it.
  - d) Repeat for all templates the requesters will use.
2. In your XML menu file, remove all menu items the requesters won't need.
3. Add a "New Request" menu item, that links to the project creation page, and calls the "Request" template characteristic.

```
<menuitem> <name>NEW_REQUEST</name>
           <labeltag>NEW_REQUEST_TAG</labeltag>
           <url>projmgmtnewproject.jsp?templatecharacteristicpath=\
Request</url>
           <scope> <project_managers/> </scope> </menuitem>
```



**Note:** Make sure you enter your template name precisely (the <url> is case sensitive).

4. Save and upload your custom XML file.
5. Assign the menu to the users (or company) you created it for.
6. Add a language string to the language files (see [Add Custom Menu Items](#) on page 1098 and [Customize the Language Files](#) on page 1091).
7. Restart TomCat.
8. Log in to WebCenter as one of the users to which you gave the "New Request" menu, and check whether:
  - you see the "New Request" menu,
  - clicking the menu opens the project creation page, with all the templates that have the "Request" characteristic available.



**Note:**

If this does not work, check all previous steps for spelling mistakes.

- If you don't get the new menu item, you have added the information incorrectly to the XML file.
- If you get an empty menu item (no text), your XML file is correct but your language file is not.
- If all is scrambled, you have broken the XML. Go back to a previous version.

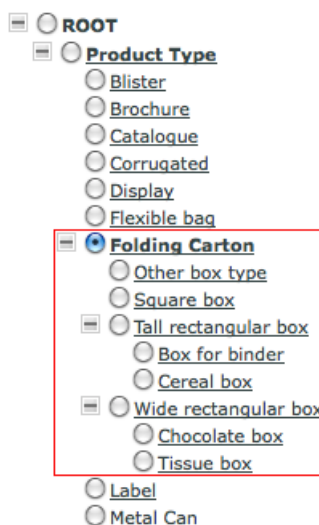
**Create a Project and Run a CAD Standard**

If you are an ArtiosCAD user, you can run a CAD standard at project creation (see [Run a CAD Standard from WebCenter](#) on page 416 in the Administration Guide).

You can create a custom menu item that allows users to create a project, based on a specific project template (or a selection of templates), using specific ARD document templates to run a CAD standard.

1. Mark the ARD document templates the users will need to run a CAD standard using a characteristic:
  - a) Log in to WebCenter as an Admin and go to **Admin > Characteristics**.
  - b) On the **Characteristics** page, create the characteristic to assign to your ARD document templates, and sub-characteristics if desired.

For example, create "Folding Carton" as a main characteristic and types of boxes as sub-characteristics.



**Note:** The main characteristic can be as deep as you want in the characteristics tree, but it cannot contain more than two levels of sub-characteristics.

See [Create a Characteristic](#) on page 319 in the Administration Guide for details.

- c) Add the characteristic or one of the sub-characteristics you just created to all ARD document templates you want to make available to the users at project creation.

For example, you can have an ARD document template with the "Tall rectangular box" and "Cereal box" characteristics, another one with the "Square box" characteristic, etc.

2. In your XML menu file, remove all menu items the requesters won't need.
3. Add a menu item (for example "New Request") that links to creating a project based on an existing template (for example "New Box"), using ARD document templates with your chosen main characteristic (for example "Folding Carton") for running a CAD standard.

```
<menuitem> <name>NEW_REQUEST</name>
      <labeltag>NEW_REQUEST_TAG</labeltag>
      <url>projmgmntnewproject.jsp?template=New
%20Box&amp;documentcharacteristicpath=\\Product%20Type\\Folding%20Carton</url>
      <scope> <project_managers/> </scope>
</menuitem>
```



**Note:**

Make sure you enter your template and characteristic names precisely:

- the <url> is case sensitive,
- use %20 to represent a space,
- use &amp; between the reference to the project template and the reference to the document characteristic,
- use \\ before each level of the characteristic tree under ROOT (so **ROOT > Product Type > Folding Carton** is \\Product%20Type\\Folding%20Carton).



**Tip:**

If you want the requesters to select from a list of relevant project templates instead of using a fixed one, mark these project templates with a characteristic as explained in [Create a Project from Different Templates](#) on page 1102.

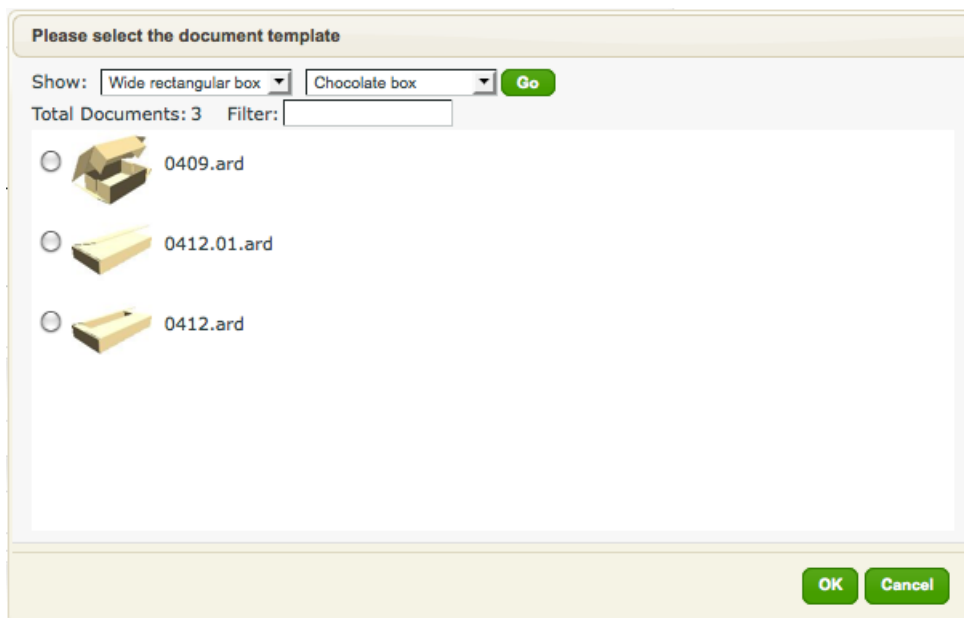
Then specify the project template and document template characteristics to use in the XML:

```
<menuitem> <name>NEW_REQUEST</name>
      <labeltag>NEW_REQUEST_TAG</labeltag>

      <url>projmgmntnewproject.jsp?templatecharacteristicpath=\\
Request&amp;documentcharacteristicpath=\\Product%20Type\\Folding%20Carton</url>
      <scope> <project_managers/> </scope>
</menuitem>
```

4. Save and upload your custom XML file.
5. Assign the menu to the users (or company) you created it for.
6. Add a language string to the language files (see [Add Custom Menu Items](#) on page 1098 and [Customize the Language Files](#) on page 1091).
7. Restart TomCat.
8. Log in to WebCenter as one of the users to which you gave the "New Request" menu, and check whether:
  - you see the "New Request" menu,

- clicking the menu opens the project creation page, with the "New Box" template selected (or with a list of all templates that have the "Request" characteristic available, depending on what you specified in the XML).
- when clicking **New** in the **Documents** section, you can see the ARD templates that have the "Folding Carton" characteristic or one of its sub-characteristics, and you can filter on sub-characteristics (select up to two levels of sub-characteristics in **Show** and click **Go**).



**Note:**

If this does not work, check all previous steps for spelling mistakes.

- If you don't get the new menu item, you have added the information incorrectly to the XML file.
- If you get an empty menu item (no text), your XML file is correct but your language file is not.
- If all is scrambled, you have broken the XML. Go back to a previous version.

**Show Projects Created from the Request Template(s)**

Once you allow users to create requests, you will probably also want a "Requests" menu item, which shows all projects created from templates with the "Request" characteristic.

1. Add a "Request" menu item (under "NON\_ADMIN" if you want it to be a top level menu, or under a top level menu item if you want a menu entry):

```
<menuItem> <name>REQUESTS</name>
           <labeltag>REQUESTS_TAG</labeltag>
           <url>myallprojects.jsp?characteristicpath=\\Request</url>
</menuItem>
```

2. Save and upload (update) your custom XML file.

3. Add a language string to the language files.
4. Restart TomCat.
5. Log in to WebCenter as one of the users who has this menu, and check whether the menu works.

### Add Your Requests to Your My Work Page

To complete the user experience of requests, you can add a **My Work** section that displays the list of requests the user created him/herself on their **My Work** page.

1. Log in to WebCenter as an Admin and do a project search looking for the "Request" characteristic.

Search for Projects

Fill in one or more fields. Prefer less fields? Try [Keyword Search](#).

		Search Results Options					Search
		View(List)	Column Order	Editable	Sort	Order	
<input type="checkbox"/> Use Advanced Search Characters <span style="font-size: 0.8em;">?</span>							Clear this Form
<input type="checkbox"/> Search Panel Design	<input type="checkbox"/> Enable SmartNames <span style="font-size: 0.8em;">?</span>						Save this Search
Project Name	<input type="text"/>	<input checked="" type="checkbox"/>	1		<input checked="" type="checkbox"/>	1	Show Result Layout Options
Description	<input type="text"/>	<input checked="" type="checkbox"/>	2		<input type="checkbox"/>		
Project Status	Show All <span style="font-size: 0.8em;">▼</span> <span style="font-size: 0.8em;">-I</span>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
Created	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Modified	<input type="text"/>	<input checked="" type="checkbox"/>	3		<input type="checkbox"/>		
Due	<input type="text"/>	<input checked="" type="checkbox"/>	4	<input type="checkbox"/>	<input type="checkbox"/>		
Customer/Location	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Salesperson	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Project Manager	<input type="text"/>	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>		
Manager's Location	<input type="text"/>	<input type="checkbox"/>			<input type="checkbox"/>		
Add Role							
Attributes...							
Characteristics... <input type="checkbox"/>							
Bill of Materials	Show All <span style="font-size: 0.8em;">▼</span>	<input type="checkbox"/>					

2. Save this search as a **Global** search with the name "Requests".
3. Create a **My Work** section displaying this search:
  - a) Go to **Admin > Preferences > My Work** and click **Create New My Work Section**.
  - b) Fill the fields on the **Create New My Work Section** page as shown below and click **Create**.



Create New My Work Section

Name \*

Type

Saved Search

URL \*

Scope

Role Groups  All Users  Specific Groups

Tip: Select one or more Role Groups to limit the Visibility of this section to the selected Groups



**Note:** You can choose another scope than **All Users**, for example only a group of requesters.

Now people in the scope can add the "My Requests" section to their **My Work** page (via **MyWork > Edit My Work setup**).

My Work

▼ My Requests

<input type="checkbox"/>	Name ↑	Description	Status
<input type="checkbox"/>	Request0001		<input type="button" value="Active"/>
<input type="checkbox"/>	Request0002		<input type="button" value="On Hold"/>
<input type="checkbox"/>	Request0003		<input type="button" value="Active"/>
<input type="checkbox"/>	Request0004		<input type="button" value="Completed"/>

Found: 4 items.

### Removing the Keyword Search

To remove the ability to search using a keyword, add the following under the "NON\_ADMIN" <menuitem>:

```
<keyword_search><enabled>>false</enabled></keyword_search>
```

This will remove the search box at the top right corner of the WebCenter window, and the **Keyword Search** option from the **Search For Projects**, **Search For Documents** and **Search For Tasks** pages.

### 5.7.3. Will My Customizations Survive New Updates?

The XML files you create are uploaded to the database and as such, they will survive WebCenter updates/upgrades. This means that the menus will remain as you have defined them.

However, new features added by a new version may mean extra menu items added in the default menu.

If you created your custom menu(s) from a **full** copy of the default menu, users having those menus **will not see the menus added by the new version**.

To prevent this, **we recommend you work with an XML file containing only the "differences" between the default menu and your custom menu**.

This means that you only put the part which you actually changed in the new XML file.

#### Examples

- If you only changed the top menu, your XML should only contain the "NON\_ADMIN" menu item. This way, the other menus will stay the same.
- If you only want to remove a part of the project details tabbed menu, create an XML file with only the "PROJDETAILS" section (and change it to your needs).
- If you only want to add an item to the existing top level menu, just include that menu item in the XML file (nothing else). It will be added to the right of the top level menu.

## 5.8. Integrating an External Web Connection into the User Interface

---

An external web connection is a connection to some data in an external system (usually a MIS system). The MIS system calculates the data (for example a bill's details) and WebCenter retrieves this data through the external web connection and displays it on a WebCenter page.

After configuring the external web connection (see [Configure External Web Connections](#) on page 424 in the Administration Guide), you can choose to add a link to it in a WebCenter top-level menu, project menu or a My Work section.

### 5.8.1. Integrating an External Web Connection into a Top-Level Menu

To integrate an external web connection into a WebCenter top-level menu, you need to edit the `menu.xml` file (see [the Customizing the WebCenter Menus chapter](#) for some background information about menus and how to edit them).



**Note:** You can only have one link to an external web connection in the top level menu per menu file.

If the external system you are connecting to outputs XML, you will also need an XSL (eXtensible Stylesheet Language) file to transform this to HTML and display it in WebCenter. Your WebCenter installation comes with an example XSL file, that you can customize.

1. If the external system you are connecting to outputs XML, edit the example XSL file as necessary:
  - a) Copy the example XSL file called `externalwebtransform.xml`, located in your `custom_example\externalwebconnection` folder, and paste it into `custom\externalwebconnection`.



**Tip:** Both the `custom_example\externalwebconnection` and the `custom\externalwebconnection` folders are located on your Web server instance, for example `C:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\custom_example\externalwebconnection`.

- b) Edit the `custom\externalwebconnection\externalwebtransform.xml` file as necessary. You can also rename it if desired.



**Tip:** See [the Customizing the E-Mail Notifications chapter](#) for principles and tips about editing an XSL file.

2. [Download the default menu](#) to use as a starting point.
3. In the `menu.xml` file, locate the part starting with `<!-- External Web Connection (1-level Menu)`.
4. Uncomment the following section:

```
<!-- <menuitem>
      <name>MYEXTERNALWEB_INFO</name>
      <labeltag>MYEXTERNALWEB_INFO_TAG</labeltag>
      <url>myexternalwebinfo.jsp?ExternalWebConfigName=<Name of your external
web configuration>&XSLTransform=<Name of your xsl transformation in custom/
externalwebconnection directory>&CallFromWebserver=<0/1 depending on whether the
call to the external system needs to be made on the tomcat server (1), or the jboss
server (0)></url>
</menuitem> -->
```



**Tip:** To uncomment, remove the `<!--` and `-->` signs that surround the section.

5. Edit this section as necessary:
  - a) Replace `<Name of your external web configuration>` by the name of your external web connection.
  - b) If the external system you are connecting to outputs XML, replace `<Name of your xsl transformation in custom/externalwebconnection directory>` by the name of the XSL file in your `custom\externalwebconnection` folder.  
You can skip this step if you didn't rename the `externalwebtransform.xml` file.
  - c) In the `CallFromWebserver` parameter, replace `<0/1 depending on whether the call to the external system needs to be made on the tomcat server (1), or the jboss server (0)>` by either:

- `<0>` if you want to connect to the external system from the WebCenter Application Server,
- `<1>` if you want to connect to the external system from the WebCenter Web Server.

If you don't specify anything, WebCenter will try to connect to the external system from the Application Server.

For example, if:

- your external web connection is called "ExternalWebConfig1",
- you haven't renamed the `externalwebtransform.xml` file,

- you want to connect from the Application Server,  
then you should include the following section menu.xml file:

```
<menuitem>
  <name>MYEXTERNALWEB_INFO</name>
  <labeltag>MYEXTERNALWEB_INFO_TAG</labeltag>
  <url>myexternalwebinfo.jsp?ExternalWebConfigName=ExternalWebConfig1</url>
</menuitem>
```

6. When you are done editing the menu file, save it under a meaningful name.
7. Upload your custom menu:
  - a) click the **Menu Upload** button on the **Menus** page,
  - b) on the **Menu Upload** page, browse to your XML file,
  - c) give your custom menu a **Name** and a **Description**,
  - d) click **Upload**.
8. If desired, assign the menu to specific users (or companies).
9. Log out and log in to WebCenter as one of the users to which you gave the custom menu, and check whether the menu works.

When clicking the menu item, the system will send a request to the configured service, and show the result in a page containing the normal WebCenter navigation and:

- for a HTML connection: the returned HTML.



**Note:** The external system must make sure this HTML is sufficiently self-contained.

- for an XML connection: the HTML resulting from converting the returned XML with the XSL file you configured.

## 5.8.2. Integrating an External Web Connection into a Project Menu

To integrate an external web connection into a WebCenter project menu, you need to edit the menu.xml file (see [the Customizing the WebCenter Menus](#) for some background information about menus and how to edit them).



**Note:** You can only have one external web connection menu item per project.

If the external system you are connecting to outputs XML, you will also need an XSL (eXtensible Stylesheet Language) file to transform this to HTML and display it in WebCenter. Your WebCenter installation comes with an example XSL file, that you can customize.

1. If the external system you are connecting to outputs XML, edit the example XSL file as necessary:
  - a) Copy the example XSL file called externalwebtransform.xsl, located in your custom\_example\externalwebconnection folder, and paste it into custom\externalwebconnection.



**Tip:** Both the custom\_example\externalwebconnection and the custom\externalwebconnection folders are located on your Web server instance, for example C:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter\_instance\custom\_example\externalwebconnection.

- b) Edit the `custom\externalwebconnection\externalwebtransform.xml` file as necessary. You can also rename it if desired.



**Tip:** See [the Customizing the E-Mail Notifications](#) for principles and tips about editing an XSL file.

2. [Download the default menu](#) to use as a starting point.
3. In the `menu.xml` file, locate the part starting with `<!-- External Web Connection (Project-level Menu)`.
4. Uncomment the following section:

```
<!-- <menuitem>
    <name>PROJDETAILSEXTERNALWEBINFO</name>
    <labeltag>PROJDETAILSEXTERNALWEBINFO_TAG</labeltag>
    <url>projdetailsexternalwebinfo.jsp?ExternalWebConfigName=<Name of your
External Web configuration>&XSLTransform=<Name of your xsl transformation in
custom/externalwebconnection directory>&CallFromWebserver=<0/1 depending on
whether the call to the External Web system needs to be made on the tomcat server
(1), or the jboss server (0)></url>
</menuitem> -->
```



**Tip:** To uncomment, remove the `<!--` and `-->` signs that surround the section.

5. Edit this section as necessary:
  - a) Replace `<Name of your external web configuration>` by the name of your external web connection.
  - b) If the external system you are connecting to outputs XML, replace `<Name of your xsl transformation in custom/externalwebconnection directory>` by the name of the XSL file in your `custom\externalwebconnection` folder.  
You can skip this step if you didn't rename the `externalwebtransform.xml` file.
  - c) In the `CallFromWebserver` parameter, replace `<0/1 depending on whether the call to the external system needs to be made on the tomcat server (1), or the jboss server (0)>` by either:
    - `<0>` if you want to connect to the external system from the WebCenter Application Server,
    - `<1>` if you want to connect to the external system from the WebCenter Web Server.

If you don't specify anything, WebCenter will try to connect to the external system from the Application Server.

For example, if:

- your external web connection is called "ExternalWebConfig2",
- you have renamed the `externalwebtransform.xml` file to `ExternalWebProjecttransform.xml`,
- you want to connect from the Web Server,

then you should include the following section `menu.xml` file:

```
<menuitem>
    <name>PROJDETAILSEXTERNALWEBINFO</name>
    <labeltag>PROJDETAILSEXTERNALWEBINFO_TAG</labeltag>
```

```
<url>projdetailsexternalwebinfo.jsp?
  ExternalWebConfigName=ExternalWebConfig2&XSLTransform=ExternalWebProjecttransform.xml&CallE
url>
</menuitem>
```

6. When you are done editing the menu file, save it under a meaningful name.
7. Upload your custom menu:
  - a) click the **Menu Upload** button on the **Menus** page,
  - b) on the **Menu Upload** page, browse to your XML file,
  - c) give your custom menu a **Name** and a **Description**,
  - d) click **Upload**.
8. Go to a WebCenter project, and check whether the menu works.

When clicking the menu item, the system will send a request to the configured service, and show the result in a page containing the normal WebCenter navigation and:

- for a HTML connection: the returned HTML.



**Note:** The external system must make sure this HTML is sufficiently self-contained.

- for an XML connection: the HTML resulting from converting the returned XML with the XSL file you configured.

### 5.8.3. Integrating an External Web Connection into a My Work Section

To integrate an external web connection into a **My Work** section, you need to create a new homepage section in the **Admin > Preferences > My Work** page.

If the external system you are connecting to outputs XML, you will also need an XSL (eXtensible Stylesheet Language) file to transform this to HTML and display it in WebCenter. Your WebCenter installation comes with an example XSL file, that you can customize.

1. If the external system you are connecting to outputs XML, edit the example XSL file as necessary:
  - a) Copy the example XSL file called `externalwebtransform.xml`, located in your `custom_example\externalwebconnection` folder, and paste it into `custom\externalwebconnection`.



**Tip:** Both the `custom_example\externalwebconnection` and the `custom\externalwebconnection` folders are located on your Web server instance, for example `C:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\custom_example\externalwebconnection`.

- b) Edit the `custom\externalwebconnection\externalwebtransform.xml` file as necessary. You can also rename it if desired.



**Tip:** See [the Customizing the E-Mail Notifications chapter](#) for principles and tips about editing an XSL file.

2. Click **Admin > Preferences > My Work**. The **My Work Sections** page appears.
3. Click **Create New My Work Section**.
4. Give your new section a **Name**.
5. In the **Type** option, select **Generic**.

6. In the **URL** field:

a) Paste the following:

```
http://<webserver_name>/<Instance name>/myexternalwebinfo.jsp?
ExternalWebConfigName=<Name of your External Web
configuration>&XSLTransform=<Name of your xsl transformation in custom/
externalwebconnection directory>&CallFromWebserver=<0/1>&homepageSection=1
```

- b) Replace `http://<webserver_name>/<Instance name>` by the address of your WebCenter server.
- c) Replace `<Name of your external web configuration>` by the name of your external web connection.

- d) If the external system you are connecting to outputs XML, replace `<Name of your xsl transformation in custom/externalwebconnection directory>` by the name of the XSL file in your `custom\externalwebconnection` folder.

You can skip this step if you didn't rename the `externalwebtransform.xml` file.

- e) In the `CallFromWebserver` parameter, replace `<0/1` depending on whether the call to the external system needs to be made on the tomcat server (1), or the jboss server (0) by either:

- `<0>` if you want to connect to the external system from the WebCenter Application Server,
- `<1>` if you want to connect to the external system from the WebCenter Web Server.

If you don't specify anything, WebCenter will try to connect to the external system from the Application Server.



**Note:** Make sure you keep the `homepageSection=1` parameter at the end!

For example, if:

- the address of your WebCenter server is `http://webcenter2.esko.com/WebCenter_Inst/`,
- your external web connection is called "ExternalWebConfig3",
- you have renamed the `externalwebtransform.xml` file to `ExternalWebHomepage.xml`,
- you want to connect from the Application Server,

then you should use the following as URL:

```
http://webcenter2.esko.com/WebCenter_Inst/myexternalwebinfo.jsp?
ExternalWebConfigName=ExternalWebConfig3&XSLTransform=ExternalWebHomepage.xml
&homepageSection=1
```

7. In **Scope**, choose which type of users will be able to use this section in their **My Work** page:

- **All Users**,
- **Administrators**,
- **Project Managers**.

8. You can use groups to further filter the users that will be able to see the section. In **Role Groups**, choose either:

- **All Users** if you want all users of the type specified in **Scope** to be able to use the section,

- **Specific Groups** if you want to restrict the section's visibility to specific groups (within that user type).

In this case, select the groups which will be able to use this section.

9. Click **Create**.

10. Log out and log in to WebCenter as one of the users to which you assigned the new My Work section, and check whether the link to the external web connection works.

When clicking the link, the system will send a request to the configured service, and show the result in a page containing the normal WebCenter navigation and:

- for a HTML connection: the returned HTML.



**Note:** The external system must make sure this HTML is sufficiently self-contained.

- for an XML connection: the HTML resulting from converting the returned XML with the XSL file you configured.

## 5.9. Customizing the Attributes

---

From WebCenter 12, it is possible to customize the attributes. You can now change the attribute's label to an image, add an HTML help page, allow multiple values and more.

For more information about the **Graphic Asset Browser** and **Cascading attributes**, please consult the WebCenter Admin Guide.

### 5.9.1. Create Image Label for an Attribute

You can create Project request forms or Order forms with graphical labels by setting image labels for specific **Attributes** in an **Attribute Category**. You can use this feature to make the form visually attractive and user friendly. In addition, you can add graphical (packaging) symbols and warnings to aid the user while filling in the forms.

1. Add the label images to the following folder on the WebServer: `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom\AttributeLabelImages`.

Create a new folder `custom` if it does not exist yet and create a folder named **AttributeLabelImages** under this folder.



**Note:**

- For the best user experience, use .jpg images. It does recognize .gif, .jpeg and .png.

2. Open your **Attribute Category** and select the **Attribute** for which you want to give an image label.


3. In the cell details, enter the correct image name including the extension in the **Label Image** field and save your attribute category.



Remove Grid Layout	
NAPR_TASK_ATT1	NAPR_TEXTATT_2
vira_res_8155	MAKE PROJECT THUMBNAIL
napr_yes_no	napr_rich1
napr_docref_latest_version	NAPR_TEXTATT_3 [Button Click]
NAPR_ATT4	Text
NAPR_ATT6	


Attribute	NAPR_TASK_ATT1
Attribute Type:	Text
Label Text:	NAPR_TASK_ATT1
Label Image:	Danger.jpg
Position:	Left
Custom Unit Label	
Span Columns:	1
Span Rows:	1
Style:	WebCenter Attribute
Style Rule:	No Rule
Visibility:	Editable
Restrict Values:	Restricted Set: NAPR_RES1 Rendering: Dropdown
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <Web/instanceRoot>/custom/AttributesHelp/


 **Note:** The image name is case sensitive.


You can see image labels appearing instead of attribute names in the forms.


### Regulatory Input / Briefing

Packaging Symbols










Packaging Code	Barcode type	Barcode	Approved for Use?
* <input type="text"/>	* <input type="text" value="---Please Select---"/>	* <input type="text"/>	* <input type="text" value="---Please Select---"/>

Required Legal Disclaimers / Warnings

[Show Rich Text Controls](#)

 **Tip:** In case you wish to display a check box for the **attribute**, make sure you use an **attribute** with a **restricted set** containing only the values Yes and No.




**Note:** You can either have a text label or an image label, but not both.

### 5.9.2. Create HTML Information for an Attribute



When you design Project request forms or new Order forms, you might want to provide additional information to the user who is filling in the information.


From WebCenter 12 onwards you can provide additional information as HTML help or information. This is especially useful when technical fields need to be supported with extended HTML help.

There will be an information  icon that is added next to the attribute name or attribute image label. When the user clicks on this icon, a pop-up HTML page with the information will appear.

1. Create an HTML file with the additional information you want to provide along with the attribute. You can create textual information as well as images to explain the attribute.
2. Place this HTML file in the AttributeHelp folder ( `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom\AttributesHelp` ).
3. Open the **Attribute category** and select the **attribute** for which you want to provide HTML help or information.
4. In the cell details, enter the correct file name (of the HTML file) in the **Info Page** field and save your **Attribute Category**.



Details for selected cell:

<b>Attribute</b>	<b>w2p-Finishing</b>
Attribute Type:	Text
Label:	Finishing
Label Image:	
Span Columns:	1
Style:	WebCenter Attribute  <a href="#">Add Style</a>
Visibility:	VisibilityRule  <a href="#">Add Rule</a> <a href="#">Edit Rule</a> <a href="#">Delete Rule</a>
Allow Multiple Values:	<input type="checkbox"/>
Info Page:	Info HTML page (name+extension) <WebInstanceRoot>/custom/AttributesHelp/ sheet-and-roll.html

If you have an HTML information page linked to an **attribute**, you can see an information icon next to the attribute in the form that you created. When you click on the information , you can see a pop-up window with the information to help the User.

**▼ Order Information**

**Is this an Order?**  **Approval Required Before Print?**

Label Shape  Quantity

Varnish  Specialties

Finishing\*

**Add More Information?**

**Create Project**

10.31.140.85/WebCenter\_Inst/custom/AttributesHel... ⌵ ⌵ ✕

10.31.140.85/WebCenter\_Inst/custom/AttributesHelp/sheet-and-roll.html

The picture below show the examples of labels printed on sheet and roll.



**Labels on Sheet**



**Labels on Roll**

## 5.10. Customizing the E-Mail Notifications

---

WebCenter users can determine the look and content of the e-mail notification messages themselves, thus allowing for customizable e-mail notification messages.

### 5.10.1. E-Mail Notification Templates In Detail

Each of the notification message types consists of two XSLT template files

1. one for the message's body and
2. one for the message's subject.

For example the default Approval Cycle Finished notification message templates are following:

```
C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Approval/cycle_finished_body.xsl
```

```
C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Approval/cycle_finished_subject.xsl
```

All XSLT templates used for creating e-mail notification messages consume a single XML document as a source for the actual transformation that leads to a plain-text-formatted output for message body and subject. This XML source is supplied by the system when an appropriate action is triggered (i.e. a project manager has changed a project status; an approval cycle has been started on a document; a task was reassigned to a different user; etc.).

There are two basic parts of this XML source document:

- All supported String labels in XML format. These labels are inserted into the XML source document by E-mail Language Manager. They are localized based on the language preference of the message's recipient passed to the E-mail Language Manager.
- The actual data that makes up the "information part" of the message (i.e. project name/due date/project manager name etc.)

These two parts of a XML source are enough for the XSLT template to create an appropriate output.

### 5.10.2. Start from the example

The easiest way to customize the **WebCenter** e-mail notifications, is to start from the example files. In the **EmailNotifications** folder, you can find an **Default** folder which contains an elaborate e-mail customization.



**Note:** This example has been tested for compatibility with the following e-mail clients: Outlook, iOS Mail and GMail.

1. First of all, you may need to navigate to your `../EmailNotifications/Custom` folder and create a back-up of your current customized e-mail notifications.

2. Place the contents of the `../EmailNotifications/Example` folder inside the **Custom** folder.
3. Restart the WebCenter services in order to update all language labels.

### Basic customization

At the root of the **Example** folder, you can find 3 important XSL templates for basic customization of the WebCenter e-mail notifications:

- header.xsl
- footer.xsl
- customize.xsl

These three template files contain the formatting of the header, the footer, style and content that is used in all the e-mail notifications sent by **WebCenter**. If you make changes to these files, the changes are reflected in all notification mails.

Another important file is: `URL.xsl`.

### Header.xsl

The `Header.xsl` file contains the logo of your company. The same header is included at the top of every e-mail notification sent by WebCenter.

#### Logo image

In the example, the logo image is the same as the WebCenter **AppLogo**; the logo that is displayed in the top left part of the header. This image is located on the Web Server. You can replace the WebCenter logo by modifying the **logoSource** variable. You can use the **host URL** of WebCenter to build the URL, by first adding:

```
<xsl:value-of select="host_url"
/>
```

After that, you add the path to the image, for example: `/myimages/logo.gif`, like in the example. You could also use a web URL.



**Note:** You can only specify an image source a server location (for instance, a web server on the internet). A relative path to the e-mail customization folder will not work.

#### Logo link

By replacing the contents of the **logoLink** variable with the link to your company website, you change the link attached to the company logo. When a user clicks on the logo in the e-mail notification, they will be redirected to this specific **URL**.

#### Example:

Replace the existing variables:

```
<xsl:variable name="logoLink"> <xsl:value-of
select="host_url"/> </xsl:variable> <xsl:variable
name="logoSource"> <xsl:value-of select="host_url"/>
/images/WebCenter-banner.png </xsl:variable>
```

By:

```
<xsl:variable name="logoLink">
  http://www.mycompany.com </xsl:variable> <xsl:variable
name="logoSource"> http://www.mycompany.com/image.jpg
</xsl:variable>
```

### Footer.xsl

The `Footer.xsl` file is similar to the header file. It is included at the bottom of every e-mail notification sent from WebCenter. You can modify the company name and address by changing the **company** and **address** variables at the beginning of the file.

#### Example:

Replace the existing variables:

```
<xsl:variable name="company" select="'WebCenter © Esko'" />
<xsl:variable name="address" select="'Kortrijksesteenweg 1095, B-9051 Gent, België'" />
```

By:

```
<xsl:variable name="company" select="'My company name'" />
<xsl:variable name="address" select="'My address'" />
```



**Note:** Pay special attention to the single quotes that are used in addition to the double quotes.

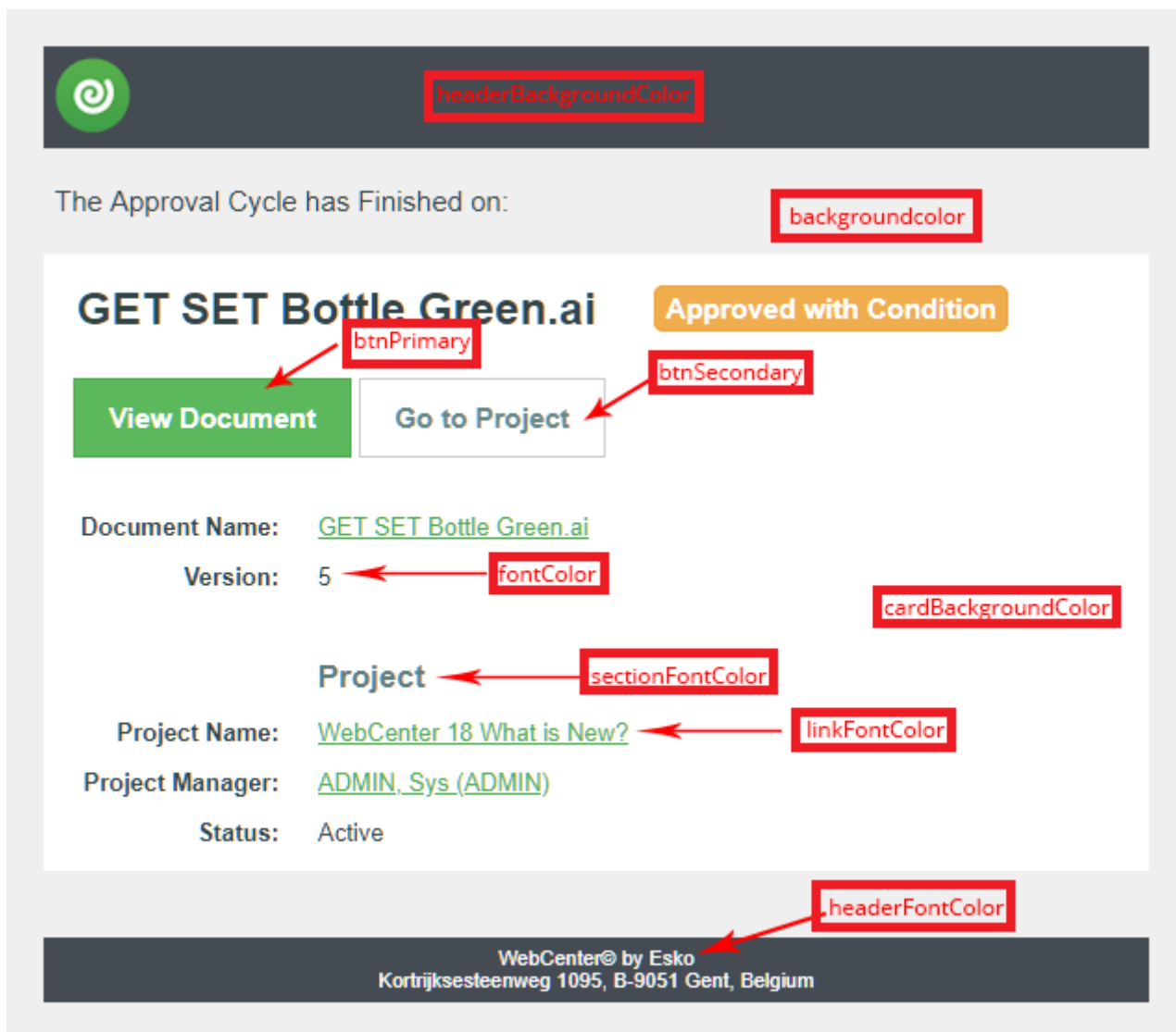
### Customize.xsl

The `Customize.xsl` file contains three parts: **Styling**, **Content** and **Styles**.

You can customize fonts and colors of the notifications in this file.

**Styling**

The **styles** section contains all the elements that make up the fonts and the colors of the e-mail notifications. For example, you can set a background color, font, font-size, font color, etc..



Example for styling in a customize.xsl file is given below:

```
<xsl:variablename="fontFamily">Roboto, Arial, Helvetica, sans-serif</xsl:variable>
<xsl:variablename="fontSize">13px</xsl:variable>
<xsl:variablename="buttonFontSize">15px</xsl:variable>
<!-- colors -->
<xsl:variablename="fontColor">#334444</xsl:variable>
<xsl:variablename="backgroundColor">#efefef</xsl:variable>
<xsl:variablename="cardBackgroundColor">#ffffff</xsl:variable>
<xsl:variablename="headerBackgroundColor">#babe13</xsl:variable>
<xsl:variablename="headerFontColor">#ffffff</xsl:variable>
<xsl:variablename="linkFontColor">#4cae4c</xsl:variable>
<xsl:variablename="sectionFontColor">#5f7e7e</xsl:variable>
<!-- Primary Button -->
<xsl:variablename="btnPrimaryBackgroundColor">#5cb85c</xsl:variable>
<xsl:variablename="btnPrimaryBorderColor">#4cae4c</xsl:variable>
<xsl:variablename="btnPrimaryFontColor">#ffffff</xsl:variable>
<!-- Secondary Button -->
```

```
<xsl:variablename="btnSecondaryBackgroundColor">#ffffff</xsl:variable>
<xsl:variablename="btnSecondaryBorderColor">#cccccc</xsl:variable>
<xsl:variablename="btnSecondaryFontColor">#668888</xsl:variable>
```

**Content**

The second part, **content**, allows you to control the presence of certain sections in the notifications. You can display or hide the document, task and project sections. The section will be displayed when you set it to **true** and hidden if you set it to **false**.

**Example:**

If you want to show the document and task sections, but hide the project section, your variables will look like this:

```
<xsl:variable name="document"
  select="true()" "></xsl:variable> <xsl:variable name="project"
  select="false()" "></xsl:variable> <xsl:variable name="task"
  select="true()" "></xsl:variable>
```



**Note:** Pay attention to the brackets used behind the true and false values, these are necessary.

**Styles**

The **styles** section contains all the elements that make up the layout of the e-mail notifications. You can modify the CSS of a specific part in order to change the look and feel of the notifications.

**Layout**

Every e-mail notification follows the same layout pattern. The body of the e-mail notification contains the **main** table that consists of three parts: **header**, **information table** and **footer**.

1. main
2. header
3. information card
4. message
5. section header
6. label
7. value
8. section header
9. footer

**Header and footer**

The **header** and **footer** information is imported from the `Header.xsl` and `Footer.xsl` files. The styling of these sections can be modified in `Customize.xsl`.

**Information card**

The **information card** consists of multiple parts. First of all, there is a **message** that describes the action. Next you find multiple sections describing the project, document and task changed information. Every section has a **sectionHeader**.

A section typically contains two columns: **label** and **value**.





**Note:** Not all sections are relevant for, and therefore present in, every notification, it depends on the action what is displayed. The same goes for label-value pairs, they are displayed depending on the action and information in WebCenter.

**Example:**

If you want to change the background color of the **sectionHeader** in all e-mail notifications to green, you only need to change the following value in the specific template:

```
'background-color: #EEEEEE;'
```

The **sectionHeader** template in the `Style.xml` file will now look something like this:

```
<!-- Section Header Style -->
  <xsl:variable name="sectionHeaderStyle"> font: 24px <xsl:value-of
  select="$fontFamily"/>; font-weight: bold; color: <xsl:value-of
  select="$sectionFontColor"/>; padding: 30px 0 5px 12px; </xsl:variable>
```

**URL.xml**

The `URL.xml` file contains a template that is called for every URL in the e-mail notifications. This way, you can map the internal WebCenter URL to an URL that is accessible from the outside. This is sometimes needed because you want to access the links to tasks, documents and projects in the notification e-mails from the outside. The internal URL is specified in the **internalURL** variable and the corrected accessible URL is specified in the **correctURL** variable. Change both variables to your URLs to activate this feature for your WebCenter e-mail notifications

**Example:**

Replace the existing variables:

```
<xsl:variable name="internalURL"
  select="'http://intranet.esko.com'"/> <xsl:variable name="correctURL"
  select="'http://accessible.esko.com'"/>
```

By:

```
<xsl:variable name="internalURL" select="'http://my.intranet.esko.com'"/>
  <xsl:variable name="correctURL" select="'https://correct.esko.com'"/>
```



**Note:** Pay attention to the usage of both double and single quotes.

**Customize Time Zone details in notifications**

You can insert customized timezone information in the notifications emails in by modifying the `Shared.xml` file. You can use `Shared.xml` file's templates as they are quite generic and can be used in context of any type of any event-type notification customization. For example., Comments for specific logic: `dateTimeWithTimeZone` and `timeZone` templates allow for inserting the time zone as of the Application server. This ensures that Date and Time values indicate what Time zone they are related to.



**Note:** Time zone information is inserted by default in **Overdue reminder notification emails** and **Approval Started** emails. For other notifications, Time Stamp can be added via customization only.

### Advanced customization

For a basic customization, you can change the layout of the e-mail notifications by modifying the header, footer and/or style files. For a more advanced customization, you could alter every XSL of an e-mail individually.

For example, you could:

- Include or exclude certain label-value pairs in sections.
- Change or override the layout of an e-mail individually from the style file.
- Change the links attached to certain fields (for instance, the document name).

In order to execute such a more advanced customization, you should have knowledge of both XSL and HTML.

### 5.10.3. Technology Used: XSLT

Staying true to the technology already used and the web anchored environment of WebCenter the framework of e-mail notification templates is based on a XML/XSLT solution.

XSLT is an industry standard for transforming an XML source to any preferred output. It uses an XML-based structure to process a passed source XML document in order to transform it into a desired output (plain text format for e-mail notification messages' purposes). Although working with XSLT requires some technical skills, it is a powerful and reliable tool.

In order to work with the XSLT template framework a user has to know:

- Structure of the XML document that is being processed by the XSLT template.
- Basic syntax and terminology of the XSLT technology.

Using XSLT also means that the templates are actually present in the form of physical files on the Application Server. They are modified on the file system directly using any text editor. There is currently no support for modifying the templates by using any part of the WebCenter user interface.



**Note:** You can find various freeware XSLT editors on the internet.

### 5.10.4. The E-Mail Template File Structure

All the e-mail notifications' related files are stored on the Application Server in the following path: `C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications`.

This is a root directory of the repository. All the subdirectories contain the required templates and language files. The structure of the repository is following:

Inside the root directory you can find three subdirectories - Default, Custom and Example. In the Example folder, you can find a customization example. Copy the contents of the Example folder into the Custom folder to it try out.

Default directory is a container for all the default files related to e-mail notifications. Contents of this directory come with the WebCenter installation and are overwritten whenever any of these files/directories are updated (or new files/directories are added).



**Note:** It is forbidden to modify the contents of Default directory, since doing so may lead to incorrect behavior in the process of creating the e-mail notification messages!

Custom directory is intended as a repository of the customized elements of the e-mail notification framework. In a clean WebCenter installation it comes empty and is populated only when a user decides to customize any part of the framework. In order to have the e-mail notifications customization framework to acknowledge and use the customized XSLT templates and/or language files it is necessary to mimic the file system structure of the default directory.

For example: a default XSLT template located on the following path:

```
C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Approval/cycle_finished_body.xsl
```

This default template will only be overridden by a customized template on a following path: C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Custom/Approval/cycle\_finished\_body.xsl

It is not necessary to mimic the entire directory/file structure of the Default directory inside the Custom directory for the customized elements to be used by the system, but the user rather needs to supply the file system structure ONLY for the individual customized elements (this means, that if the user wants to customize just Approval Started notification message, he has to create an appropriate file system structure for this notification type only).

### 5.10.5. Customizing E-Mail Language Files

WebCenter in general uses XML based file as a source for all labels in the system with each of the labels set stored in a single file for each of the supported languages.

The same applies to the e-mail notifications framework. This allows for supporting localized labels inside the e-mail notification messages, based on the user profile preference of the notification message's recipient.

In order to be independent on the rest of the application, the e-mail service utilizes its own E-Mail Language Manager and a separate set of XML language files.

These language files are stored on the following path: C:/Esko/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Languages.

If you wish to customize the labels, you need to copy an appropriate XML language file (based on the language for which you want to customize the label for) to a corresponding path in the Custom directory. After doing so, you need to restart the JBoss service.

### 5.10.6. Customizing the Notification Templates Step by Step

The most important aspect of smooth and successful e-mail notification customization process lies in basic knowledge of XSLT technology. The templates are rather simple and the XSLT constructs utilized are few. This makes any modification of the templates confusing at first sight, but is understood soon enough.

## What You Need to Know Before You Begin

### Structure of the Source XML

Even more important than knowledge of XSLT is knowledge of the source XML, since that is the cornerstone of X-Path usage.

To be able to work with the XSLT templates, the user has to know the structure of the XML document that is consumed by the appropriate XSLT file. Since the XML source that is used in e-mail notification message creation process is never stored anywhere on the disk and is held only in the server's memory at runtime, there is no easy way to investigate its contents and their XML structure. Since each of the individual notification templates share their "parent notification type" XML structure, it is required to learn only one XML document structure to be able to work with a whole set of the parent's "subtype" (by parent notification type one should think about Approval Notification Type, while its subtypes are Approval Cycle Started Notification, Approval Cycle Finished Notification and Approval Status Submitted Notification).

This is why each of the "parent notification type" directories contains an example XML file that represents a model XML source document that is expected by each of the "subtype" XSLT templates. The actual values of the elements in such an example XML document are of no importance. It's their XML structure that matters for anyone who wishes to customize the templates.

### XPath

XPath is something like XSLT's own proxy SQL query framework. While SQL queries are used to stalk through a database, XPath is used to navigate through a XML document. The XML structure of XML source used by notification templates is really simple so the XPath queries are also simple. To tell the truth all the user doing the template modifications needs to know about XPath is parent-child relation between XML elements.

XPath basic syntax is actually done through namespace navigation. This means that it is the same as navigating through a Windows file system or internet URLs.

Here are some examples:

Windows file system - `C:/Artios/WebCenter/.`

Internet URL - `http://myserver/WebCenter_Inst/login.jsp`

In the first example:

- C: part stands for volume name (you can consider this to be the root definition of the namespace through which it will navigate).
- Artios part is an element under this root.
- WebCenter is a subdirectory of Artios (thus it is a child element of Artios which in turn is its parent element).

A similar logic applies for the second example:

- `http://` part is a definition of a protocol that will be used for processing any element selected by this "path".
- `myserver` part is a root namespace; in this case it is a server by the name `myserver`, that should contain the selected element at the end of this "path".

- WebCenter\_Inst part is context name of the web application that contains the selected element; myserver part of the path is its parent element.
- Login.jsp is the selected element of this path; it is a child element of WebCenter\_Inst and myserver elements.

Now if you take a trivial XML structure like:

```
<car>
  <engine HP="500">
    <parts>      Some parts    </parts>
  </engine/>
  <wheels>
    <tires>      Bridgestone  </tires>
  </wheels/>
</car>
```

You can use a similar path (this time it's XPath) structure to select (for example) the contents of tires element this way:

```
select = "/car/wheels/tires"
```

This (hypothetical) XPath expression selects the tires element, which returns its contents giving the result value Bridgestone.

If we analyze the path itself, it is very simple > car is the root element, wheels is its child element and tires is in turn child element of the wheels element.

## 5.11. Customizing the Translation Service

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By Default, the Auto Translation service supports Google Translate API. You can override this service by replacing "translator-service-1.0.jar" with a custom implemented jar file.

## 5.12. Customizing the Onboarding Hook

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The onboarding hook allows you to enable a custom onboarding flow for WebCenter users, using a tool of your choice (i.e. intro.js, walk.me, userlane, userpilot, ...).

You can include a snippet of JavaScript and its needed dependencies on every page. To enable this feature, add your snippet to WEBCENTER\_INSTANCE/custom/onboarding/onboard.js. If your JavaScript snippet needs external dependencies, you can add the URLs of these dependencies to WEBCENTER\_INSTANCE/custom/onboarding/dependencies.txt

After installing the onboard.js and dependencies.txt files the web server must be restarted to enable the custom onboarding hook.

## 6. Maintenance Guide

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### 6.1. Copyright Notice

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## 6.2. Maintenance

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### 6.2.1. Installation Tips

#### Create a Detailed Installation Log

For Installation debugging and troubleshooting purposes, you can create a detailed installation log file for any Esko Installer programs. To do this:

Run setup using the following syntax: Path+program space /v"/l\*v space path+logfile name

- For example: For ArtiosCAD Enterprise installation from CD-ROM in my D:\ drive,
- Open a command prompt and Change to the D:\ drive

- Type: `setup /v"/I*v c:\temp\ACsetup.log"`

### 6.2.2. WebCenter Schema

Every time a new installation or upgrade is performed, the Database Schema scripts should always be run. Schema changes are guaranteed for each version and build.

Since WebCenter 12.1, the database schema scripts can be run automatically from the installer, which is recommended. In case a problem occurs, or additional parameters are needed, the scripts can still be run manually.



**Note:** Since WebCenter 12.1, no files need to be copied to the database server in case the database is not installed on the Application Server. The scripts can simply be run from the Application Server itself.

To run the database scripts manually from the Application Server, execute the following steps:

1. Open a command prompt and go to `\Esko\Artios\WebCenter\ServerTools`.
2. Type `update_db.bat` to check your current configuration.
3. To run the database script, type `update_db.bat` and at least the "sa" password for MSSQL or "sys as dba" for Oracle. This operation can take a considerable amount of time in case there are a lot of projects and documents with attributes.
4. In case of errors check the `servertools.log` in `\Esko\Artios\WebCenter\ServerTools`.

### 6.2.3. Cleaning Up the Database and FileStore

Items deleted through WebCenter's web interface are not permanently deleted from the Database or the FileStore, only removed from the user interface. An Admin may be able to restore them if necessary.

To delete them permanently (to keep the Database and FileStore sizes manageable), you should run the **Cleanup Utility**.



**Note:** We recommend you run this regularly (every week for example).



**Important:** Do not run this utility during busy hours. The users might experience database deadlocks.

Read also <https://wiki.esko.com/display/KBA/KB74647891%3A+WebCenter+-+Use+of+Cleanup+Utility+in+WebCenter>

- To run the utility:

On the **Application Server**, go to `C:\Esko\Artios\WebCenter\ApplicationServer\Cleanup` and double-click `cleanup.bat`.

You don't need to enter any parameter in the script. It will run and close itself automatically when done.

This cleans up all FileStore files and Database records deleted through the WebCenter interface.

- To configure the utility to only clean up files and records deleted a certain time ago in the interface:



- a) On the **Application Server**, go to `Artios\WebCenter\ApplicationServer\Cleanup\config` and open `access.properties` in a text editor.
  - b) For each table, change `age=0` to the number of hours ago files and records must have been deleted for them to be cleaned up.  
For example, enter **168** hours if you want to only clean up files and records that were deleted at least 1 week ago in the interface.
  - c) Save and close `access.properties`.
  - d) Restart the WebCenter services on the Application Server.
- To schedule the Cleanup Utility to run automatically, use the Windows Scheduler.

### 6.2.4. Temporarily Block Access to a WebCenter Site

You may sometimes be required to bring down a WebCenter server for maintenance or upgrade. To prevent users from accessing your WebCenter sites at that point, you can stop all IIS services on the Web Server. However, this will give anyone who types in your URL an error message, "Page Cannot Be Found". Alternatively you can convey the message in a user-friendlier page.

To redirect a virtual site to a specific page:

1. On the Web Server, open IIS Manager and expand Web Site node.
2. Right click on an WebCenter instance that should show the maintenance page and choose **Properties**.
3. Select option **Manage Virtual Directory > Advanced Settings**.
4. In the popup window there should be a "Physical Path" option set to the tomcat directory of `WebCenter_Inst`



**Note:** This path typically is like `<drive>:\Esko\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_Inst`

5. Set this Physical path to some other folder on the system containing the maintenance page (e.g. `c:\maintenance`). Create your nice maintenance page and put it in the maintenance folder as the "index.html" (e.g. `c:\maintenace\index.html`)
6. Test changes in IIS Manager.
7. Right click on the Virtual Site name and choose `<Browse>`.
8. You should see your custom page display correctly in right half of console.
9. You can test changes using Internet URL. Open a web browser and type in the site's URL. You be brought to your custom page as well.
10. Repeat these steps for each WebCenter virtual site you wish to block access.

To stop redirecting sites to a custom page:

1. Change each WebCenter Virtual Site to use its own Tomcat directory.
2. On the Web Server, open IIS Manager.
3. Expand your Web Site node until you see your WebCenter virtual sites listed. Right click on an WebCenter Virtual Site that is redirecting (i.e. `WebCenter_Dev`).
4. Choose Properties.
5. On the Virtual Directory tab, locate the Local Path field.
6. Click `<Browse>` button. Change to `\Artios\WebCenter\WebServer\Tomcat\webapps` directory.
7. Select the folder name that matches the virtual site name (i.e. `WebCenter_Dev`). Click `<Apply>`.

8. On Documents tab, highlight your custom page name at top of the list. Select <Remove> button. Click <Apply>, then <OK>.
9. Ensure WebCenter services are all started on the Web Server and the Application Server.
10. Test this site in IIS Manager. Right click on the Virtual Site name and choose <Browse>.
11. You should reach the WebCenter login page. Test this site using Internet URL.
12. Open a web browser and type in the site's URL. You be brought to same WebCenter login page.
13. Repeat these steps for each WebCenter virtual site you desire to allow access.

## 6.2.5. Moving the Filestore: WebCenter 21.03 and earlier

This is the procedure for moving the Filestore for WebCenter version 21.03 and earlier.

### Moving the FileStore

1. Create the new share and ensure it meets the requirements concerning naming and location:
  - a) The default share is named FileStore and can be renamed using alphanumeric characters only. For example: instead of using default location `C:\Artios\WebCenter\FileStore`, you may create a new share on D: partition called ESKOFS instead, `D:\ESKOFS`.
  - b) The new destination share must be shared with the local or domain BGSYSTEM user running the WebCenter services. There is a default password which can be changed as per your requirement. Ensure that the Password never expires.
  - c) It is NOT recommended that the group EVERYONE is given access to the new destination share. If so, please remove this share and security permission.
  - d) The BGSYSTEM user running the WebCenter services must have full share and security permissions to the new destination share.
  - e) The new destination share must be reachable from the WebCenter's Application Server.
  - f) If you are configuring a production Automation Engine server instead of the OBGE (not recommended), the BGSYSTEM user running the Automation Engine server's Services (BGMD) also requires full permissions to the new destination share via Windows networking.
  - g) WebCenter's Application Server should maintain a constant connection to the new destination share and must never lose connection, otherwise all WebCenter services will have to be restarted.
2. Test the communication to new share from the Application Server.
  - a) From the Application Server, log in as the **BGSYSTEM** user which runs the WebCenter Services. Browse to the new share and create a new text file within the new share. Delete test file after successful writing.
3. Stop IIS and WebCenter Services on both the Web and the Application Server. This ensures that no files are in use and locked for backup.
  - a) On the Web Server: stop **IIS Admin, Word Wide Web Publishing, HTTP SSL, and WebCenter Tomcat**.
  - b) On the Application Server: stop **WebCenter JBOSS, and WebCenter CAD-X**.
4. Backup the Web Server, Application Server, Database, and current FileStore share.
5. **Uninstall** WebCenter completely. Please note that changing configuration files is not supported. A reinstall is always required.
6. Inspect the old FileStore share's **Properties**. Record the total size, number of files and folders. Use this information after the reinstall is finished for comparison.

7. Move entire contents of current FileStore share to its new destination share.

#### After moving the FileStore

1. After the move is completed, ensure new share is not marked as **Read Only**. If so, remove attribute on share and all subfolders and files.
2. Rename the old share (for example: `\Artios\WebCenter\FileStoreOLD`).
3. Reinstall WebCenter using the new FileStore share. **Make sure to use a UNC path to the FileStore location.**
4. On WebCenter's Application Server, configure the **OBGE** to use the new FileStore location:
  - Use the Automation Engine Pilot to log on as an admin.
  - Delete the old **container** and add a new container pointing to the newly created share.
  - Delete the old **HotFolder** or **Access Point** (first convert to regular folder) and add a new Hot Folder / Access Point.
  - Make sure your new Hot Folder or Access Point is **Active**.
5. Restart IIS and WebCenter services on both Web Server and Application Server.
6. Test WebCenter with the new FileStore location.
  - Upload a graphics file to WebCenter and make sure Checking and Registering works (you get a thumbnail after a while).
  - Verify that you can open the graphics file in the Viewer.
  - Verify that you can download documents.

### 6.2.6. Moving the Filestore: WebCenter 21.07 and later

This is the procedure for moving the Filestore for WebCenter version 21.07 and later.

1. Create the new share and ensure it meets the requirements concerning naming and location:
  - a) The default share is named FileStore and can be renamed using alphanumeric characters only. For example: instead of using default location `C:\Artios\WebCenter\FileStore`, you may create a new share on D: partition called ESKOFS instead, `D:\ESKOFS`.
  - b) A new destination share must be shared with the local or domain BGSYSTEM user running the WebCenter services. There is a default password which can be changed as per your requirement. Ensure that the Password never expires.
  - c) It is NOT recommended that the group EVERYONE is given access to the new destination share. If so, please remove this share and security permission.
  - d) The BGSYSTEM user running the WebCenter services must have full share and security permissions to the new destination share.
  - e) The new destination share must be reachable from the WebCenter's Application Server.
  - f) If you are configuring a production Automation Engine server instead of the OBGE (not recommended), the BGSYSTEM user running the Automation Engine server's Services (BGMD) also requires full permissions to the new destination share via Windows networking.
  - g) WebCenter's Application Server should maintain constant connection to the new destination share and at no point shall lose the connection and if so then all WebCenter services must be restarted.
2. Test communication to new share from the Application Server.

- a) From Application Server, log in as the **BGSYSTEM** user which runs the WebCenter Services. Browse to the new share and create a new text file within the new share. Delete test file after successful writing.
3. Log into WebCenter as the **ADMIN** user (use user ADMIN, not just any administrator user).
4. Navigate to **Admin > Configuration > File Storage Configuration**.
5. Under the **Storage Configuration** tab, expand the dropdown for whichever section to be migrated and click **Add New Storage Location**.
6. Define a new name for the storage location. Example: 'ServerName Filestore Documents'.
  - a) Keep in mind, you do have the option to add different locations per data type as well as per document type.
7. Specify the type of Storage Location where this FileStore folder will be stored.
8. Provide the UNC path to the new location.
9. Click Save.
10. Once all needed sections are updated, click Save.
11. Go to the **Storage Locations** tab and select all locations to be migrated. Then click **Migrate Files**.
  - a) This can be done while WebCenter is up and running. No restart is required.
12. To monitor the progress of the Filestore migration, check the Storage Migration tab.

## 6.3. Configuration

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### 6.3.1. Configuring ArtiosCAD Defaults

To properly configure CAD-X for best WebCenter performance and display, make the necessary changes to the ArtiosCAD settings that WebCenter uses.

The following settings should already be applied after installing ArtiosCAD 12.1 or higher, but you can verify or change them:

1. On the Application Server, open ArtiosCAD.
2. From menu bar, choose **Options > Defaults**.
3. Expand **Database Defaults** and open the **General Options**.
4. Make sure the **Design Thumbnail** format is **ArtiosCAD 3D**, click **Apply** then **OK**.
5. Expand **Design Defaults – VRML Export Options for CAD-X**.
6. Make sure **Use compression** is selected, deselect **Automatically Open**, and click **OK**.
7. Set the **View Zoom Factor** to 90%.

To enable different download formats for CAD files, execute the following steps:

1. Expand **Outputs – Artios – Export to Common File Formats**.
2. Repeat the steps below for each export conversion desired for WebCenter downloads:
  - a. Open the data item (DXF Inch, etc.) by double clicking it.
  - b. Within the **Shown In** section, select **WebCenter**.
  - c. Click **OK**.

After changing the Defaults, make sure to save them by choosing **File > Save**.

### 6.3.2. Configuring to use NAT translation

It is essential for the correct working of WebCenter that the Web Server can find the Application Server via host name resolution and that the host name used for directing the Web Server to the Application Server matches the host name set for the Application Server.

JBoss on the Application Server resolves its own host name dynamically and communicates this to the Web Server. The host name must match the one provided on the Web Server or WebCenter will not work.

The best way to make this work, is if the Web Server can find the Application Server via DNS records or via active directory look-up.

If however this is impossible (for example for security or other reasons), a possible workaround is to manually configure the host mapping on the Web Server. If this workaround is used it is ESSENTIAL that it is properly documented. It will make the system work, but without proper insight into the configuration, troubleshooting can become problematic (for example when the IP address of the Application Server is changed).

To preform this workaround, open `C:\Windows\System32\drivers\etc\hosts` in a text editor and add the line: `<ip_address> <app_server_host>` (for example: `10.20.30.40 mywcrappserver`), then save the file.

From then on any resolving of the Application Server host name from the Web Server side will result in the provided IP address.

In case of NAT translation it is of course the IP address visible to the Web Server that needs to be used.

### 6.3.3. Create Usage Log Files for Each Virtual Site

WebCenter creates Usage Log files for each WebCenter site. Refer to LOG FILES section for details. The location and names of these log files can be changed so that each virtual site has its own set of log files.

For example: I have 3 virtual sites (WebCenter, SamAdams, and BlueMoon). I configure WebCenter site to have different log files than SamAdams and the BlueMoon sites. This way I know who is doing what and from which UI - even though they are all using the same database!

On the Web Server, using Notepad, Edit each site's config.xml appropriately.

- Located in `\Artios\WebCenter\Tomcat\webapps\<sitename>\config` folder.
- Locate the `<MetricsFiles>` tag, as seen below:

```
<MetricFiles>
<MetricsFile id="Checkout" path="C:\Artios\WebCenter\logs\WebCenterCheckoutLog.txt"/>
<MetricsFile id="Download" path="C:\Artios\WebCenter\logs\WebCenterDownloadLog.txt"/>
<MetricsFile id="Upload" path="C:\Artios\WebCenter\logs\WebCenterUploadLog.txt"/>
<MetricsFile id="Login" path="C:\Artios\WebCenter\logs\WebCenterLoginLog.txt"/>
```

</MetricsFiles>

- Modify the path and file name of each the 4 log files as desired.



**Attention:** If you change the path of the log files, be sure that the local Administrators Group and the local IIS users (IUSR\_<localcomputername> and IWAM\_<localcomputername>) of the Web Server have full permissions to the destination location, and that the new location's local Administrators Group has full permissions to the virtual sites tempfiles folder on the Web Server. Without proper permissions, log files cannot be written there.

- Save Changes and Exit.
- Repeat for each Virtual Site.
- On the Web Server and the Application Server, restart WebCenter services for changes to take affect.

### 6.3.4. Modify main configuration files

#### appconfig.xml

This file contains configurable application data (described below):

- FileStore location (changing not recommended, reinstalling WebCenter is always preferred)
- Log File names and locations
- Search Crawler settings
- ArtiosCAD 2D View layers used in WebCenter (overlays)
- ArtiosCAD Design files print side used

On the Application Server edit C:\Artios\WebCenter\Config\appconfig.xml (this is always on the C:\ drive).

- Make modifications, Save changes, and Exit.
- Restart all IIS and WebCenter services on both the Web Server and the Application Server for changes to take effect.

#### ImageList.ini

The Viewer's configuration file contains the path and location of the FileStore, which holds the pyramid files to be retrieved by viewer.



**Attention:** If you have moved your FileStore after initial application installation, it is always recommended to reinstall WebCenter.

- on the Application Server, open \Artios\WebCenter\ApplicationServer\program\ImageList.ini and verify that the paths are correct.

### 6.3.5. Change file name used at the time of download

A configuration has been added for allowing you to decide how a specific site handles file downloads. Each virtual site has its own configuration, so they can all be different. The purpose is to control the file name assigned to the file being downloaded—whether it keeps the name displayed in WebCenter or the original disk file name it was at the time of upload.

In WebCenter, on the General Information page of any Document, there is new data displayed called "Original Disk Filename". No—this "Original Disk Filename" value is NOT searchable.

Here is an example of how these download settings work:

- Config file set to False.
- Uploaded Peter.txt file as version 1 to WebCenter.
- On Gen Info page, Orig. disk Filename = Peter.txt.
- Locked Peter.txt.
- Uploaded New version—but browsed to Melissa.txt.
- Result was:
- Document remains named Peter.txt as version 2.
- BUT on Gen Info page, Orig. disk Filename = Melissa.txt.
- When choose to download version 2, name of file to be saved is Peter.txt
- Config file set to True.
- Uploaded Craig.txt file as version 1 to WebCenter.
- On Gen Info page, Orig. disk Filename = Craig.txt.
- Locked Craig.txt.
- Uploaded New version—but browsed to Chris.txt.
- Result was:
- Document remains named Craig.txt as version 2.
- BUT on Gen Info page, Orig. disk Filename = Chris.txt.
- When choose to download version 2, name of file to be saved is Chris.txt.

To change the way a specific site downloads files:

- On the Web Server, edit \Artios\WebCenter\WebServer\tomcat\webapps\<<sitename>\config\config.xml.
- Locate section below:

<!-- Download name option -->

<!-- true - to use the uploaded document version file name when downloading -->

<!-- false - to use the original document name when downloading -->

DocVersionDownloadName value="false"/>

- Change value of DocVersionDownloadName from true to false as desired.

- On the Web Server, Restart WebCenter Tomcat service for changes to take affect.

### 6.3.6. Change CAD plotting style in WebCenter and Viewer

- Backup your style.xml file within your FileStore share.
- Within your FileStore share, Browse to \FileStore\views\Style directory.
- Make a copy of style.xml for backup purposes.
- on the Application Server, open ArtiosCAD and modify Defaults.
- From the menu bar, choose Options – Defaults, then expand Plotting Style Catalog.
- Select desired plotting style(s) and make necessary modifications.
- Click <Save as XML> button, and save the file to desktop with exact name of style.xml.
- <OK> to exit, Close Defaults, Save Changes, and Exit ArtiosCAD.
- Copy new style.xml file from desktop into existing FileStore location.
- Copy the new file and replace one in your FileStore in the \FileStore\views\Style directory.
- Changes will take effect immediately, no need to restart any WebCenter services.

## 6.4. Backup and Restore Strategy

---

To properly back up WebCenter and ensure you can recover from a disaster, such as disk failure, there are 3 major components to be able to restore successfully and minimize your downtime:

- WebCenter application, configurations, and Virtual Sites
- WebCenter's FileStore and Database
- OBGE/Automation Engine application, configurations, and Database

In the event of a disaster (disk or system failure) or in case you want to setup a test system that mimics your production environment from a specific point in time, then you will need to rely on whatever Backup Plan you have in place to successfully Restore to a specific state in time.

Backups can be performed using 3 methods: **Full**, **Incremental** and **Differential**. We suggest you choose one of the following Backup Modes:

- **Always Full** - you back up all files every time, whether some of them were changed or not.
- **Full+Incremental** - you create a **Full** backup relatively seldom: once a month, or once a week, or on achieving some important point in your work. You create all other backups with the **Incremental** mode, only backing up files changed since the last backup.

This approach is good when the project includes too many files to do a **Full** backup each time. It is faster and takes less disk space than a **Full** backup. It also allows you to create backups more frequently.

However, to restore all the files, you have to restore the last **Full** backup, then all the following **Incremental** backups.

- **Full+Differential** - is an intermediate mode. Each **Differential** backup includes all the project files changed since the last **Full** backup. It takes less time and space than **Always Full**, but more than **Full +Incremental**.



The good thing is that restoring is simpler than for **Full+Incremental** - you will only have to restore the last **Full** backup and the last **Differential** backup.

### 6.4.1. What to Back up for WebCenter

- The WebCenter application, configurations, and Virtual Sites.
- The Application Configuration only needs to be backed up after initial installation, upgrades, or when changes are made to application configuration files.
- Virtual Sites need to be backed up when they are initially created and after each modification.
- WebCenter's FileStore and Database.
- The Database and FileStore need to be backed up at least on a daily basis. Furthermore, they must be backed up at the same time. One is useless without the other.
- The database cannot be locked in any way during backup procedures, otherwise WebCenter will stop responding and all WebCenter services will need to be restarted.
- If the database is out-of-sync with the FileStore, or vice-versa, then your clients will receive errors and your data will become corrupt.
- It is recommended that you create a backup plan that will copy the database and FileStore at the same time several times per day, during your peak hours of activity.
- The OBGE/Automation Engine application, configurations, and database.
- If the OBGE was installed on the Application Server, then its application and configuration only needs to be backed up after initial installation, upgrades, or when changes are made to the configuration files.
- If using a Production Automation Engine server rather than the OBGE (which is NOT recommended but is possible), its database should be backed up daily, if not several times per day.
- If backups of the database and FileStore cannot be synchronized fully, it is preferred to first back up the database and immediately thereafter the FileStore. This will ensure all files referred in the database are also present in the FileStore.

#### An Example Backup Plan

- WebCenter application, configurations, Database, and Virtual Sites
- After initial installation/upgrade, make full system backups of the Web, Database, and Application Servers.
- When changes to Virtual Sites and/or application configurations are made, back up the Web and/or Application Server in full again.
- OBGE/Automation Engine application, configurations, and database.
- During initial installation, either the OBGE was installed on the Application Server, or a production Automation Engine server was configured. Determine which server was used.
- Using the Server Admin tool, located at **Start > Programs > Esko > Automation Engine**, configure and setup backups for the software application and database:
- On the Automation Engine tab, configure a server software backup and Backup Server Software configuration using the Wizards.
- On the Database tab, use the <Manage Databases> button to Database Properties and Backup Database.
- WebCenter's FileStore and Database
- Hardware Configuration: Configure a mirrored disk RAID subsystem on the Application Server. The rest of the disks should be configured with a different RAID level, such as parity. On the mirrored partition, only the system Operating System is installed and a directory for the purpose of storing

temporary backup files, such as "WC\_BACKUP". The parity RAID drives will be where WebCenter applications and OBGE are installed.

- Schedule Full backups:
- On the Application Server, use backup software to schedule a Full backup of the FileStore every Sunday at 2 am (a day and time where little or no system activity can be guaranteed).
- On the Database Server schedule a Full WebCenter Database backup every Sunday at 2 am, the same time as the FileStore backup.
- Schedule daily Incremental backups to local disk.
- We determined most active hours for WebCenter activity. We choose times of day that will satisfy us in the event we have to recover (8am, 12pm, 4pm, 8pm).
- on the Application Server, schedule daily Incremental backups (8am, 12pm, 4pm, 8pm) to backup FileStore to local disk on the Application Server in directory "WC\_BACKUP" on the mirrored disk raid.
- On the Database Server, schedule daily Incremental backup at exactly same time as the FileStore backup (8am, 12pm, 4pm, 8pm), to backup the database to a local disk on the Application Server in the "WC\_BACKUP" directory .
- Schedule daily Differential backups.
- We determined a time of day that has least WebCenter activity and ensures that the other daily backups have completed writing to disk (11pm).
- on the Application Server, schedule a Differential backup of the FileStore every day (except Sunday) at 11pm (a time after the last Incremental backup completes and when little or no system activity can be guaranteed).
- On the Database Server, schedule a Differential backup of database every day (except Sunday) at exact same time as FileStore backup at 11pm (a time after the last Incremental backup completes and when little or no system activity can be guaranteed).

Example Backup Schedule

Frequency	Day & Time	What	Where	How
Manually as needed	At time of installation and when changes are made	Entire system, all partitions (contains WebCenter application files, configurations, Database, and Virtual web Sites)	Web Server, Database Server, and Application Server	FULL
Manually as needed	At time of installation and when changes are made	Entire system, all partitions (contains OBGE/Automation Engine app, configurations, and Database)	Application Server or Production Automation Engine server	FULL
Weekly	Sundays at 2am	WebCenter's FileStore	Application Server	FULL
Weekly	Sundays at 2am	WebCenter's Database	Database Server	FULL

Frequency	Day & Time	What	Where	How
Daily	8am, 12pm, 4pm, 8pm	WebCenter FileStore and Database	Application Server	INCREMENTAL
Daily	8am, 12pm, 4pm, 8pm	WebCenter's Database	Database Server	INCREMENTAL
Daily (except Sundays)	11 pm	WebCenter FileStore and Database	Application Server	DIFFERENTIAL
Daily (except Sundays)	11 pm	WebCenter's Database	Database Server	DIFFERENTIAL

### An Example Restore Plan



**Attention:** Anytime you restore a WebCenter SQL Server database, you must fix orphaned logins before the database is usable. See [Restoring the master database](#) on page 1146 for more information.

PROBLEM: Disk failure on the Application Server, Thursday 6/15/06 at 2:26 pm.

SOLUTION: Assuming the backup schedule is the same as the chart above, this is a 5 part restore plan:

- Determine exact period of data loss and inform specific users of activity that will need to be redone.
- Repair systems
- Restore WebCenter application to a working state.
- Restore WebCenter application configurations.
- Restore data using most recent point of backup for the WebCenter FileStore, Database, and Virtual Sites.

This is a possible course of action:

- Determine data loss risk and begin communicating this to end users.
- Calculate the difference between the time of failure and the time of the last incremental backup to disk.
- In this example, the data loss risk would be 12pm – 2:26pm, approximately 2.5 hours.
- This means that any changes made to WebCenter during these 2.5 hours will be lost.
- Determine which users were logged into WebCenter during the 2.5 hours and inform them they will need to redo this work after system has been restored.
- Using WebCenter usage log files, you can determine what users were logged in at the time of failure.
- Using WebCenter usage log files, you can determine what activities users performed in WebCenter as it relates to Uploads, Downloads, and versioning of files during the 2.5 hours where you will lose data.
- Resolve point of failure in hardware or software.
- Reinstall from original Media or Restore WebCenter application (no data at this point).
- Ensure that you use the exact same version and build used before point of failure.
- Test blank application.

- Ensure WebCenter application is working in the correct network configuration (such as in a DMZ with SSL security) using a blank database, blank FileStore, and the Installation site is accessible (WebCenter\_Inst).
- Ensure that you can create a new project, upload a document, use View and Annotate tool, download a document, etc.
- Restore Database, FileStore, and Virtual Sites
- Using backups, restore files from the Last FULL backup (Sunday 6/11/06).
- Then restore files using the previous nights DIFFERENTIAL backups (Wed 6/14/06).
- Then restore files using ALL the current days incremental backups to Local Disk up until point of failure, ensuring to apply them in proper order (Thurs 8am first then Thurs 12pm).
- Run the database restore script to reset 'WebCenter' user login.
- For the SQL Server, you must run the stored procedure against WebCenter4\_0 database.
- Using Query Analyzer, type in these 2 command lines below:

Use WebCenter4\_0

Sp\_change\_users\_login auto\_fix, WebCenter, null, **Database Password**

- Run the query.
- You should see a message that orphaned records have recovered.
- Restart all IIS, WebCenter, and Database services on the Web Server, Application Server, and Database Server.
- Test the application with the restored data.
- Verify can view existing projects, download docs, and use View and Annotate tool on existing documents.
- Verify can create new projects, upload documents, use View and Annotate tool on new docs, download new docs in existing database, etc.
- Do a FULL backup on all systems.

### 6.4.2. Microsoft SQL Server (2012 or later) Backup and Restore

Backing up the WebCenter database is a critical part of its maintenance. If the database is lost, there is no way to rebuild it without a valid backup.

Microsoft SQL Server 2012 or later version uses a master database in conjunction with the WebCenter4\_0 database. Both must be backed up regularly in order to be able to recover from a database failure.

#### Backing up the WebCenter database

To back up the Microsoft SQL Server 2012 or later database used by WebCenter, do the following:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2012 folder on the **Start** menu.
3. In the **Connect to Server** dialog, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**.  
If you used the default instance and not a named instance, just enter the server name.
4. Click **Connect**.

5. Click the plus sign (+) next to the **Databases** folder icon to expand it.
6. Right click **WebCenter4\_0**, click **Tasks**, and then click **Back Up**.
7. In the Back Up Database - WebCenter4\_0 dialog, set the **Backup type:** to either **Full** or **Differential**.

**Full** is a complete backup, while **Differential** is everything that has changed since the last full backup. The first backup must be a full backup.

A recommended strategy is to make a **Full** backup once a week and a **Differential** backup on the other days.

8. In the **Backup set** group, enter the current date in the **Description:** field.
9. In the **Destination** group, select either **Disk** or **Tape**.

Tape is unavailable if there is no tape drive attached to the system. Most installations will use Disk.

A default backup location and file name is shown. To change the location and file name, first select the default location and click **Remove**, and then click **Add** and enter a new location and file name.

A disk backup may only be made to an internal physical disk on the system; you may not specify an external drive or a network drive.

10. Click **Options** in the **Select a page** pane.
11. In the **Overwrite media** group, select **Overwrite all existing backup sets** for a full backup. For a differential backup, leave **Append to the existing backup set** selected.
12. Click **OK** to start the back up.
13. Click **OK** when informed that the back up of database 'WebCenter4\_0' completed successfully.

Copy the backup file whose location was set in step 9 to a different hard drive or networked drive. It is also recommended that the location is part of your general backup strategy.

The WebCenter database is now backed up.

## Backing up the master database

The master database does not need to be backed up as frequently as the WebCenter database, but it still should be backed up regularly.

To back up the master Microsoft SQL Server 2012 database, do the following:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2012 folder on the **Start** menu.
3. In the **Connect to Server** dialog, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**.  
  
If you used the default instance and not a named instance, just enter the server name.
4. Click **Connect**.
5. Click the plus sign (+) next to the **Databases** folder icon to expand it.
6. Click the plus sign (+) next to the **System Databases** folder icon to expand it.
7. Right click **master**, click **Tasks**, and then click **Back Up**.
8. In the **Backup set** group, enter the current date in the **Description:** field.
9. In the **Destination** group, select the desired destination.
10. Click **Options** in the **Select a page** pane.
11. In the **Overwrite media** group, select **Overwrite all existing backup sets**.
12. Click **OK** to start the backup.

13. Click **OK** when informed that the backup of database 'master' completed successfully.

Copy the backup file whose location was set in step 9 to a different hard drive or networked drive. It is also recommended that the original location is part of your general backup strategy.

The master database is now backed up.

## Restoring the WebCenter database

There are three situations in which you would have to restore the WebCenter database: a hard drive failure, a corrupt database file, or corrupt data within the database.

### Recovering from a hard drive failure

When the hard drive holding the WebCenter database fails, after you have replaced it and reloaded the Microsoft SQL Server 2012 software (if necessary), do the following to restore the WebCenter database:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2012 folder on the **Start** menu.
3. In the **Connect to Server** dialog, enter the server name in the **Server name:** field if it is not there already, followed by `\<instance name>`, such as **MBCAPPSERV\WEBCENTER**.

If you used the default instance and not a named instance, just enter the server name.

4. Click **Connect**.
5. Once connected to the database, right-click the **Databases** folder and click **Restore Database** on the context menu.
6. In the Restore Database dialog, in the **Source for restore** group, click **From device**.
7. Click the ... (Browse) button at the end of the **From device:** field.
8. In the Specify Backup dialog, click **Add** and select the file to which you backed up the WebCenter database, for example **WebCenter4\_0.bak**.
9. Click **OK**. The selected file should be listed in the **Backup location:** field in the **Specify Backup** dialog.
10. Click **OK**. A list of full and differential backup sets should appear.
11. Select all the backup sets in the Restore column. If you chose to not have full backups overwrite each other, select the most recent **Full** backup and all the **Incremental** backups (or the last **Differential** backup) taken after it.
12. In the **Destination for restore** group, in the **To database:** list, select **WebCenter4\_0**.
13. Click **OK** to start restoring.

Click **OK** when informed that the restore completed successfully.

The database should now be restored and ready for use by WebCenter.

### Recovering from a corrupt database file

If the database file becomes corrupted and unreadable, meaning **WebCenter4\_0.mdf** still exists but Microsoft SQL Server 2012 cannot read it, do the following to restore the WebCenter database:

1. Log on to the database server as a member of the local **Administrators** group.

2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2012 folder on the **Start** menu.
3. In the **Connect to Server** dialog, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**.  
If you used the default instance and not a named instance, just enter the server name.
4. Click **Connect**.
5. Once connected to the database, right-click the **Databases** folder and click **Restore Database** on the context menu.
6. In the **Restore Database** dialog, in the **Source for restore** group, click **From device**.
7. Click the ... button (Browse) at the end of the **From device:** field.
8. In the Specify Backup dialog, click **Add** and select the file to which you backed up the WebCenter database, for example **WebCenter4\_0.bak**.
9. Click **OK**. The selected file should be listed in the **Backup location:** field in the **Specify Backup** dialog.
10. Click **OK**. A list of full and differential backup sets should appear.
11. Select all the backup sets in the Restore column. If you chose to not have full backups overwrite each other, select the most recent **Full** backup and all the **Incremental** backups (or the last **Differential** backup) taken after it.
12. In the **Destination for restore** group, in the **To database:** list, select **WebCenter4\_0**.
13. In the **Select a page** pane, click **Options**.
14. In the **Restore options** group, select **Overwrite the existing database**.
15. Click **OK** to start the restore.

Click **OK** when informed that the restore completed successfully.

The database should now be restored and ready for use by WebCenter.

### Recovering from corrupt data

If the database file contains corrupted data, meaning that Microsoft SQL Server 2012 can read the database but that there is missing or incorrect data, think carefully about the restoration, as whatever data was added to the database since the last backup will be lost after the restoration with no way to recover it. You should ensure as few users as possible are using WebCenter before performing this procedure.

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2012 folder on the **Start** menu.
3. In the **Connect to Server** dialog, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**.  
If you used the default instance and not a named instance, just enter the server name.
4. Click **Connect**.
5. Once connected to the database, expand the **Databases** folder, right-click **WebCenter4\_0**, and then click **Properties** on the context menu.
6. In the **Select a page** pane, click **Options**.
7. In the **Other options:** list, scroll to the bottom and double-click **Database Read-Only** to change its value from **False** to **True**.
8. Click **OK**.

9. Click **OK** to confirm changing the properties of the database and to close all other connections.
10. Right-click the **Databases** folder and click **Restore Database** from the context menu.
11. In the Restore Database dialog, in the **Source for restore** group, click **From device**.
12. Click the ... button (Browse) at the end of the **From device:** field.
13. In the Specify Backup dialog, click **Add** and select the file to which you backed up the WebCenter database, for example **WebCenter4\_0.bak**.
14. Click **OK**. The selected file should be listed in the **Backup location:** field in the **Specify Backup** dialog.
15. Click **OK**. A list of full and differential backup sets should appear.
16. Select all the backup sets in the Restore column. If you chose to not have full backups overwrite each other, select the most recent **Full** backup and all the **Incremental** backups (or the last **Differential** backup) taken after it.
17. In the **Destination for restore** group, in the **To database:** list, select **WebCenter4\_0**.
18. Click **OK** to start restoring.

Click **OK** when informed that the restore completed successfully.

The database should now be restored, automatically set back to multi-user mode, and ready for use by WebCenter.

### Restoring the master database

If the master database is damaged or absent, as long as the **sa** user can connect to the database and backups have been made, use the above procedures to restore the master database, substituting **master** in the **System Databases** folder for **WebCenter4\_0** as necessary.

If the master database is lost because of a disk crash and no connections are possible, uninstall and reinstall Microsoft SQL Server 2012 and then restore the WebCenter4\_0 database using the procedures described above.

After restoring the WebCenter 4\_0 database subsequent to reinstalling Microsoft SQL Server 2012, recreate the WebCenter user login for the database by doing the following:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start a command prompt.
3. Type `osql -Usa -P"sa_user_password" -Sdatabase_server \instance_name` and press **enter**. If you are using the default instance, use `-Sdatabase_server` instead.
4. At the 1> prompt, type the following: `sp_addlogin 'webcenter', 'Database Password', 'WebCenter4_0'` and press **enter**.
5. At the 2> prompt, type `go` and press **enter**.
6. At the 1> prompt, type `use WebCenter4_0` and press **enter**.
7. At the 2> prompt, type `go` and press **enter**.
8. At the 1> prompt, type `sp_change_users_login update_one, webcenter, webcenter, null` and press **enter**.
9. At the 2> prompt, type `go` and press **enter**.
10. At the 1> prompt, type `exit` and press **enter**.
11. Close the command prompt window and log off the database server.

The database is now restored and ready for use by WebCenter.



## 6.5. Troubleshooting

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### 6.5.1. Testing WebCenter

On the Application Server and the Web Server, ensure IIS and the WebCenter services are started and configured to start automatically.

After starting/restarting the WebCenter services, always wait a few moments until the CPU processor activity on both servers become idle (<5%) before attempting to access the login page.

Testing each facet of WebCenter in the exact order below helps to easily and quickly identify points of failure, if any.

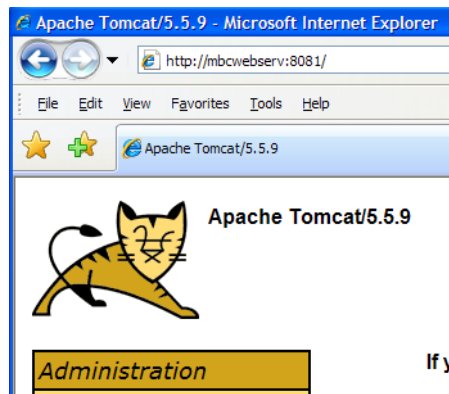
- IIS Connectivity - use IIS Manager to access the WebCenter\_Inst site
- IIS Security settings - can access the home page after logging in
- Database connection and Schema - can add a new record to the database
- FileStore connectivity - can write a file to the FileStore and then retrieve it
- View Data generation - can upload a graphic file and the OBGE does its job
- View and Annotate applet - can launch the applet successfully on a Graphic file
- View the status in the Trouble shooting tool for **View Server Deployment Status**

#### Verify IIS is working

- On the Web Server, from a web browser type: //<webservername> (such as //MBCWEBSERV).
- If you get an "Under Construction" page, IIS is working.
- If you get "The page cannot be displayed", then most likely IIS services are not started or still starting.

#### Verify Tomcat is working

- On the Web Server, from a web browser type: //<webservername>:8081 (such as //MBCWEBSERV:8081).
- If you get Tomcat's home page, Tomcat is working.



### Test IIS connectivity

- On the Web Server, open IIS Manager and expand the website node.
- Right click on WebCenter\_Inst virtual directory; choose Browse (only test with this directory for now).
- Wait... watch progress in status bar. Will take longer very first time...
- You should be brought to login page (login.jsp). If you get to this page, then you know IIS is responding.
- If not, verify IIS and WebCenter services are all Started. This is one of the most common errors.
- If services are all Started and still cannot access login page from IIS Manager, then see if you can bypass IIS and talk to Tomcat directly.
- Close IIS Manager and Open a web browser.
- In address URL type: `http://<name_web_server>:8081/WebCenter_Inst` (case sensitive)
- You should be brought to login page (login.jsp).
- If you can access this way using port 8081, then you know IIS cannot talk to Tomcat.
- Check whether 32-bit applications is set to **False** in IIS.
- Check via netstat whether TomCat is listening on port 8009.

### Test IIS security settings

- Logon to WebCenter as username admin (if this is a new database, the password will be blank).
- Wait... watch progress in status bar. Will take longer very first time... You should be brought to the home page (homepage.jsp).
- If you get to this page, then you know that your security settings within IIS Manager are correct.
- If you get an error page, then you must look at your IIS settings for this virtual directory. Most of the time Execute Permissions and Application Protection settings need to be modified. This happens when the IIS default settings for the entire Web Site have been customized. You will experience this most often when a customer is installing WebCenter into an existing IIS web server. Also check whether 32-bit applications are enabled in IIS.

### Test Database connection and schema

- After logging in as user Admin successfully, create a new project. If you can add a new project successfully then your Database schema has been created correctly.

- If you cannot add a new project or receive SQL errors, run the Database Schema batch file again and ensure there are no error messages.

### Test FileStore connectivity

- Still logged in as Admin, upload a PDF or Word Document as type "Other" to the project you just created.
- When receive successful message, click on file name link to view document Online.
- Either a new web browser window will open or native application will launch automatically and display contents of file. If you can view the contents of the file, then you know your FileStore is configured and working properly.
- If you cannot open and view it, then you may have FileStore permission issues. Did you move your FileStore off the Application Server? If so, go back and follow those directions again.

### Test View Data Generation

- After correctly configuring WebCenter and OBGE on the Application Server, you should be able to upload ArtiosCAD design files, PDF, and Esko Graphic files as document type "Graphics File" and successfully use the View and Annotate tool on these types of documents. This means that the Checking and Registering message disappears and "View and Annotate" action is added to the document action list in top right corner.
- If the Checking and Registering message seems to take forever to disappear or never disappears, you can watch the communication between the two to see what is happening. To do this, open the OBGE and watch the jdf hotfolder activity.
  - on the Application Server, login to Pilot as user admin.
  - Expand the FileStore container.
  - Expand JDFHotFolder - hotin subfolders. This is the folder in which WebCenter composes a JDF ticket and drops it off in this location for Automation Engine (OBGE) to pick it up and take action.
- Minimize Pilot.
- Open a web browser and login to WebCenter as user ADMIN.
- Upload a document of type "Graphics file" to a project.



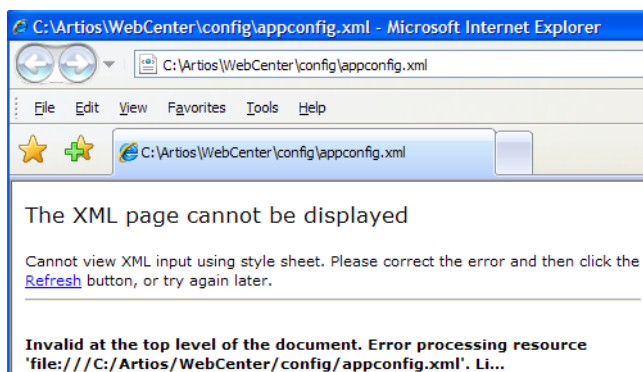
**Attention:** As soon as you click Upload button you must act quickly to do next few steps to be able to watch real-time communication between WebCenter and the OBGE.

- After upload says successful, immediately click file name link to jump to Graphic Details page.
- In document header you should see message next to document name "Checking and Registering...".
- Quickly minimize WebCenter, maximize Pilot.
- Watch creation of JDF ticket appear in the hotin folder.
- In the FileStore Container View within the monitor pane, you should see when Automation Engine (OBGE) begins processing the JDF ticket.
- You should see a running task named "Prepare for Viewer". Task should finish fast (definitely less than 1 minute).
- Once task finishes (successful or failed), you can see the JDF ticket move to the hotout folder.
- Minimize Pilot, maximize WebCenter.

- You should still be on that document's details page with "Checking and registering..." message still displaying.
- Refresh your browser window (F5).
- The "Checking and registering..." message should disappear and View and Annotate action appears in Document Action Menu.
- If task failed, a red 'X' and failure message will appear next to document name and no new action will appear in menu. Review the task log file within Pilot to see why task failed.

### Cannot access WebCenter login page anymore

- Restart WebCenter Services in the correct order. Either use the batch files on the desktop or do them manually as below:
  - Stop all IIS and WebCenter services on the Web Server and the Application Server.
  - Start services on the Application Server first (JBoss, CAD-X, FlexLM, BGMD).
  - Then start services on the Web Server (IIS and Tomcat).
  - Wait until the CPU activity is idle on all servers (<5% activity).
  - Try to access the installation site (WebCenter\_Inst) again.
  - Verify you are using the correct URL.
  - Ensure you are using the correct case- the W, C, and I are uppercase in WebCenter\_Inst.
  - Test WebCenter's individual components.
- Do all of the previous steps under [Testing WebCenter](#) on page 44. This can rule out a port conflict or installation problem.
- Determine if the Code and web pages are of the same version.
- If you can access the installation site (WebCenter\_Inst) but not a custom deployed site, it is possible that the installation site pages are a different version than your other virtual sites.
- For sites to be on different versions, WebCenter was upgraded but your custom sites were not. In this case, your WebCenter application has new code and is expecting the web pages to be version B and able to read new code, but the pages are still version A. This won't work.
- After an upgrade the only site that gets upgraded automatically is "WebCenter\_Inst". Use the deployment tool to redeploy new sites.
- Determine if your configuration files are corrupted.
- Certain non-XML standard editors, such as WordPad or FrontPage, corrupt XML files when used and Java cannot compile them. The most common file that gets corrupted is APPCONFIG.XML.
- on the Application Server, browse to C:\Artios\WebCenter\Config (always on the C:\ drive).
- Open appconfig.XML file using a web browser.
- Right click on the file and choose Open With and chose any browser.
- You may sometimes receive the error page saying "The XML page cannot be displayed" as seen below.
  - If you receive this message, your APPCONFIG.XML is corrupt. This means that someone edited this file with WordPad or an editor that changed the XML formatting.



- To fix a corrupted page, you can restore this file from a known good backup, or reinstall WebCenter on the Application Server only. The latter means you will have to reconfigure most of the settings again.
- On restoration of the file, you must restart all IIS and WebCenter Services on the Web Server and Application Server for the new file to take effect.
  - Verify IIS ISAPI filters are correct
  - On the Web Server, open IIS Manager.
  - Right click on web server name node, and choose Properties.
  - On the ISAPI Filters tab, WCTomcat should have a green arrow pointing up.
  - Right click on WebCenter\_Inst node, choose Properties.
  - In the Application Settings section, ensure Application Name =“WebCenter\_Inst” and is not blank.
  - If blank, choose Create button to create it.
  - Right click on Jakarta node, choose Properties.
  - On Virtual Directory Tab, local path should be

```
\Artios\WebCenter\WebServer\Tomcat\bin\win32\i386
```

- If not, browse to it.
- Review IIS and WebCenter log files for obvious errors. Refer to the log files section for log file locations and details.

## 6.5.2. Easily Identify when WebCenter is Ready to Access

WebCenter services load a lot of data into memory during startup of its services. It is important to watch the CPU activity before accessing a WebCenter site.

You want both the Web Server and the Application Server to have a CPU activity of under 5% before accessing the site, otherwise all components may not have started and you may experience error messages. Another way is to check whether `wcr_jboss_srv.exe` threads exceed 160 and `wcr_tomcat_srv.exe` threads exceed 100.

To help watch the CPU activity easily, add the CPU performance monitor to the system tray of each WebCenter server. To do this (on both the Web Server and the Application Server):

1. Create a new shortcut in the **Start Menu > Programs > Startup** folder.
2. Browse to `Windows\system32\TASKMGR.EXE`.

3. Set the shortcut to Run "Minimized".

### 6.5.3. Log files

#### Installation

A log of how WebCenter was installed, repaired, or upgraded will always be located on the Web Server right under the C:/ drive (C:\WCInstall.log). You can review this file for obvious errors and to see what settings were entered during the initial installation.

#### Web Server log file rotation

Web server log files are split into day-encompassing blocks in the same way that the Application server log files are. This means that shortly after midnight, each day all the logs recorded the previous day on the Web server are zipped into a single ZIP archive with the time stamp of the day in the archive name for easier troubleshooting for the administrator. This logic adds all the following log file types on the Web server into the target archive:

- catalina.log
- SDK.log
- localhost\_access.log
- localhost.log



**Note:** Some of those log file types may not always exist for that particular day. For Example, Access log file is only written if a servlet error occurred during that time period in the Web server.

#### Shared log file age limit

Both the Application and Web server log files share the age limit. The length of time the log file archives are to be stored in the system can be set. Log file archives older than the set value will be removed shortly after midnight each day.

#### Site Usage

Usage log files are located on the Web Server by default, in \Artios\WebCenter\logs. They record activities such as:

- Logins/Logoffs (including when sessions time out and when users click **Logout**).

WebCenterLoginLog.txt example:

```
Action Date/Time User Reason
LOGOUT Apr 21, 2006 4:23:18 PM JOEC Reason: user logged out
LOGIN Jun 13, 2006 9:46:01 AM MELISSAA
LOGOUT Jun 13, 2006 10:14:53 AM MELISSAA Reason: session timed out
```

- File CheckOuts/CheckIns (Lock & Downloads and Upload of new versions).

WebCenterCheckoutLog.txt example:

```
Action Date/Time User File Unique Doc ID Size (bytes)
CHECKIN Jun 7, 2006 2:13:08 PM MIKEG ACAD Demo.ARD 00002_0000025472 50176
CHECKOUT Jun 8, 2006 2:07:20 PM CHRISJ R.ARD 00002_0000025613 10240
```

```
CHECKIN Jun 8, 2006 2:07:54 PM CHRISJ R.ARD 00002_0000025614 10240
CHECKOUT Jun 9, 2006 8:24:15 AM CHRISJ 4A.ARD 00002_0000025688 4098
CHECKIN Jun 9, 2006 8:24:25 AM CHRISJ 4A.ARD 00002_0000025689 40912
```

- File Downloads/Uploads (including when downloads start, finish, and fail).

WebCenterDownloadLog.txt example:

```
Date/Time User File Version Unique Doc ID Size Status
Jun 7, 2006 3:13:30 PM BEAPM 123_Hoegaarden_silver_front.pdf 1 00002_0000000683 85373
Download Started
Jun 7, 2006 3:13:30 PM BEAPM 123_Hoegaarden_silver_front.pdf 85373 Download Finished
Jun 8, 2006 2:17:24 PM MIKEG Scope_fc.pdf 1 00002_0000001681 1068473 Download Started
Jun 8, 2006 2:17:50 PM BEAPM WebCenterDownload.zip 196608 Download failed
```

WebCenterUploadLog.txt example:

```
Date/Time User File Project Size Status
Jun 9, 2006 2:14:10 PM DAZZ docB1.txt bea p 115 Upload started
Jun 9, 2006 2:14:10 PM DAZZ docB1.txt bea p 115 5 Upload finished
Jun 12, 2006 8:15:10 AM ADMIN CMM_CASE.JPG permtest666 0 Upload started
Jun 12, 2006 8:15:10 AM ADMIN CMM_CASE.JPG permtest666 182090 Upload finished
Jun 12, 2006 1:59:57 PM ADMIN DCS.ct bjrtest 0 Upload started
Jun 12, 2006 1:59:58 PM ADMIN DCS.ct bjrtest 189672 Upload finished
```



**Note:**

On the Web Server, the local Administrators Group, the SYSTEM user, and both IIS users need full permissions to the log folder(s) location and the tempfiles folder within each virtual site. To do this:

- Browse to the \Artios\WebCenter\Logs folder
- Ensure that these users and group have full permissions to the log and tempfiles folders: IUSR\_<Web Server\_servername>, IWAM\_<Web Server\_servername>, SYSTEM, Administrators Group.

**Tomcat Service**

These log files are located on the Web Server in \Artios\WebCenter\WebServer\tomcat\logs directory. You can also download them from the [WebCenter user interface](#).

- isapi.log: logs IIS to JSP redirection.
- \*.log, Catalina\*.log, host-manager\*.log, localhost\*.log, and manager\*.log: log various start-up information and service errors.
- hotfixinstallation\*.log, HF\_\*.txt: log information about the hotfixes installed on the tomcat server.

**IIS Services**

These log files are located on the Web Server in the \Windows\system32\LogFiles\W3SVC1 directory. They follow the format of exYYMMDD.log, where YYMMDD refers to the calendar Year, Month, and Day.

The date and time the log file was created represents the first request made on that day. These log all HTTP and HTTPS requests for that specific date. If there is no client activity on an WebCenter site that day, no log file is created.

- For example: `ex122205.log` was created at 5:46 am.
- This means that the first site activity for WebCenter was at 5:46 am and this log file contains all activity made on 12-22-2005.

Example IIS log file:

Time of request	IP address of client	Method	Page returned to client	Status code
17:09:52	10.31.226.94	GET	/WebCenter_Inst/images/logo_esko.gif	200
17:09:52	10.31.226.94	GET	/WebCenter_Inst/images/bg_Dots2.gif	200
17:10:18	10.31.226.94	POST	/WebCenter_Inst/dologin.jsp	200
17:10:18	10.31.226.94	GET	/WebCenter_Inst/home.jsp	200
17:10:18	10.31.226.94	GET	/WebCenter_Inst/homepage.jsp	200

### JBoss Service

These log files are located on the Application Server in the `\Artios\WebCenter\Application-Server\JBoss\server\default\log` directory. You can also download them from the [WebCenter user interface](#).

- `Boot.log` and `Server.log`: record JBOSS startup activity. The created date and time of this file represents the last time the WebCenter JBoss service was started or restarted.
- `server.log.YYYY-MM-DD`: records the server activity for the specified day, where YYYY-MM-DD refers to the calendar Year, Month, and Day.
- `hotfixinstallation*.log, HF_*.txt`: log information about the hotfixes installed on the jboss server.

### Viewer Applet

This log file is located on the Application Server in `\Artios\WebCenter\ApplicationServer\program` directory.

- `imageList.log`: This logs information about the View & Annotate Tool.

### Change logging level for troubleshooting

You can adapt the logging level in `<webcenter_install>\ApplicationServer\JBoss\server\default\deploy\jboss-logging.xml`.

Levels are:

- NONE = don't log anything
- SEVERE = logs only the important issues
- WARNING = logs all of the above but also possibly unexpected but less critical problems
- INFO = logs all of the above and a lot of information about internal state
- FINE, FINER, FINEST = logs all of the above and debugging output in 3 levels of detail
- ALL = logs everything

Log levels should not be changed in general, but might be changed for troubleshooting reasons (increase logging) or on heavy loaded systems to reduce disc spamming with logging data (reduce logging).

Note that these changes can be made to the app server logging without needing to restart the JBoss, the configuration is reloaded dynamically.



Logging can be changed for the console by changing the name attribute value of the level node in the console handler: `/logging/console-handler/level`

```
<level name="ALL"/>
```

It can be changed to any of the mentioned levels.

Logging can be changed for the file based log by copying the level node mentioned above to: `/logging/periodic-rotating-file-handler/level` and again adapting the level.

It is also possible to do more granular logging adaptations, for that just go to the bottom of the config file.

```
<logger category="com.esko">
  <level name="INFO" />
</logger>

<logger category="com.esko.webcenter.src.root.BaseObjectDB">
  <level name="INFO" />
</logger>

<logger category="WEBCENTER">
  <level name="INFO" />
</logger>

<logger category="appx">
  <level name="INFO" />
</logger>

<!--<logger category="com.esko.webcenter.search12">
  <level name="ALL"/>
</logger-->
```

Here you see different possibilities to raise or lower the logging level.

The WEBCENTER category is used by some of the historical webcenter code. Recent or updated webcenter code will use a category matching it's class (e.g. 'com.esko.webcenter.src.util.Statement'). This allows to adapt logging levels up to the class. So the following would silence any logging information coming from the statement class.

```
<logger category="com.esko.webcenter.src.util.Statement">
  <level name="NONE"/>
```

The categories are hierarchical (with the '.' as separator) which means that you do not need to declare each an every class all the time.

```
<logger category="com.esko.webcenter.search12">
  <level name="ALL"/>
```

The example above will enable all (full detail logging) for all the classes/categories in the reworked search component. The actual logging level is determined by the best match declared here. So this specific example will enable all logging for 'com.esko.webcenter.search12.SomeClass' but

'com.esko.webcenter.src.util.Statement' will not be affected. That one is covered by the second last example or if that is not defined by 'com.esko'.

## 6.5.4. Interacting with services for troubleshooting

You can change any service to display activity in real-time by starting a .bat file:

- To start TomCat, open a command window on the Web Server at `\WebServer\tomcat\bin`. Enter `wcr_tomcat_srv_cmdrun.bat` to start the service interactively.
- To start JBoss, open a command window on the Application Server at `\ApplicationServer\JBoss\bin`. Enter `wcr_jboss_srv_cmdrun.bat` to start the service interactively.
- To start CadX, open a command window on the Application Server at `\ApplicationServer\CadXServer\bin`. Enter `wcr_cadx_srv_cmdrun.bat` to start the service interactively.

## 6.5.5. Possible Problems

### Cannot connect to Database

If you attempt to access login page or login and then receive this error, these are the common causes:

1. You lost the connection to your database server for some reason.
2. You did not use the correct instance name during installation.

Something is preventing the database services from starting or staying started. First try the following first: Restart your database services. Verify you are using the correct Instance name.

In case that does not help, perform the following steps:

- Check the log files `JBoss\server\default\log\{server.log,boot.log}`. The inability to connect to the database is clearly indicated: `'ConnectionException'`.
- Read and interpret the messages that are passed by the: `'ConnectionException'`, they are quite descriptive.

Three of the most common connection problems are:

- The database is local but TCP is not enabled:
  - Look for the 'SQL Server Configuration Manager' in the Windows **Start** menu and start it.
  - In the network section, select Protocols for the WCR database (typically WEBCENTER) and enable TCP.
  - Go to the server services and restart the database in order to make the TCP enablement effective.
  - Restart the WebCenter Application Server.
- Browser is not enabled:
  - Go to the server that contains the database and ensure the database browser service is running.
  - Restart the WebCenter Application Server.

- If it still does not work, you may try enabling the same option on the Application Server service and restarting the Application Server again.
- The connection information is incorrect:
  - Use SQL Management Studio (it should be on the Application Server since it is a prerequisite) and verify the connection information.
  - Once you have the correct connection information, we recommend you uninstall the Application and Web Server and reinstall them.

### Cannot connect to Application Server

This usually means one of 4 things:

- WebCenter JBOSS service on the Application Server is stopped or has not finished loading yet.
- on the Application Server, verify WebCenter\_Jboss service is Started. Restart it.
- on the Application Server, open the Task Manager; in the process view enable the threads column; the app server is started when the number of thread reaches or exceeds about 160.
- There is a JBOSS port conflict on the Application Server.
- Do port testing to ensure that port 1099, 4444, 2500 and 3873 are not in use when all WebCenter and OBGE services are stopped on the Application Server.
- During the Web Server installation, the name of the Application Server was not entered correctly.
- On the Web Server, Using Notepad, Edit \Artios\WebCenter\WebServer\tomcat\webapps\WebCenter\_Inst\Web Server-INF\classes\jndi.properties.
- Ensure name of the Application Server is correct with the correct port number.



**Note:** The Web Server needs to locate the Application Server based on the host name (strict requirement, see NAT section).

- Restart WebCenter services on both the Web and the Application Server if changes were made.
- The Web Server cannot access the Application Server (meaning Tomcat can't talk to JBOSS).
- Ensure you can telnet to the Application Server's IP address on WebCenter ports (default 1099, 4444, 2500, 3873) from the Web Server.
- Use this syntax: telnet <ip\_address> <port\_number>.
- Ensure that you get a Java response and successfully can telnet on each port.
- Ensure that if you are using NAT that you have configured the Web Server and the Application Server appropriately.

### Page 404 after logging in

In this case you can access WebCenter's login Page. However after you enter in login credentials, you receive a "Page 404" rather than WebCenter's home page.

- 99% of the time this is because all WebCenter services haven't finished starting completely.

### Could not load a valid license for WebCenter

Usually this means you don't have a license or the license has expired.

- Make sure you have a WebCenter License and you have activated it (see the License Manager User Guide for more information).

- Contact Support hotline to ensure your license has not expired.

### Cannot access WebCenter site from external Internet

In this case you can access the site by using the Web Server machine name or IP address within the LAN (i.e. MBCWEBSERV/WebCenter\_Inst), but you cannot access the site(s) using the registered domain name over the internet (for example `http://www.meeberboxcompany.com/WebCenter_Inst`).

- Verify that your ISP has registered this domain name with an 'A' record setup with your ISP.
- Verify that your ISP is forwarding HTTP and HTTPS traffic for this domain name to your firewall.
- Verify that your Firewall routes HTTP and HTTPS traffic to the Web Server server within the DMZ.
- Ensure IIS on the Web Server is configured to receive HTTP or HTTPS traffic on correct port and assigned IP address.
- Refer to the **Exposing WebCenter to the Internet** section in the Installation Guide to review the things needed to access your site from the external Internet.



**Note:** It is recommended not to use internal server names as this will cause certificate errors for valid certificates.

### Automation Engine error when publishing to WebCenter site

You will only get this message on Automation Engine servers that attempt to publish files to a secured WebCenter site that uses `https://`.

If for example the SSL certificates haven't been installed properly on the WebCenter Web Server, all Automation Engine Publish tasks will fail with the following error message:

```
javax.net.ssl.SSLHandshakeException:
sun.security.validator.ValidatorException: PKIX path building failed:
sun.security.provider.certpath.SunCertPathBuilderException: unable to
find valid certification path to requested target
```

To fix this, you can either:

- make sure the certificates are installed properly on the WebCenter Web Server (see [Secure your WebCenter Site with SSL](#) on page 50 in the Installation Guide),
- import the WebCenter site's SSL certificates into Automation Engine's keystore (see [Install SSL Certificates on the Workflow Production Server](#) on page 59 in the Installation Guide).

### Cannot use WebCenter SQL Server Database after a restore

Anytime you restore an WebCenter SQL Server database, you must run a stored procedure to fix orphaned logins before the database is usable.

- Run a manual query against WebCenter4\_0 database: `sp_change_users_login auto_fix, webcenter, null, Database Password`
- Alternately, follow the instructions at the end of [An Example Restore Plan](#) on page 1141.

### VRML 3D Animations "stutter" and some graphics may be missing

When viewing a 3D Model on a server, this is to be expected as servers generally do not have good quality graphics cards.

For clients, when both ArtiosCAD and Cortona are running on same video card, both using Direct3D or OpenGL to draw 3D designs with a moderate amount of graphics, there is competition for video card memory. This causes Cortona to "stutter" while running animations and some graphics may be missing. There are 3 possible workarounds:

- Close ArtiosCAD and re-open VRML in Cortona.
- Specify that Cortona is to use 'R98 Renderer'.
- Upgrade your Video Card.

### No license present to use the Launch API

Sometimes this error appears when trying to use the View and Annotate tool. Sometimes everything seems to stop working in WebCenter all of a sudden. To resolve:

- Restart WebCenter and OBGE services on the Application Server.
- Try again. If still get error, then verify that the Graphics license has the Task Launching API module in it (flfastif).
- On OBGE edit \Esko\bg\_data\_system\_v010\licenses.dat.
- Verify that it contains an 'flfastif'. If not, have a new license file generated.

### The Page cannot be displayed

This means that IIS and/or WebCenter Tomcat service on the Web Server are Stopped.

## 6.5.6. E-mail Troubleshooting

### Symptom: You get a "Mail Server Connection Error" while trying to send a Test Mail.

**Possible resolution:** This means that the service cannot connect to the specified mail server. It can either be down, not accepting external mail session connections, or unreachable from your current subnet.

First, try to connect to the mail server manually. This is done by running the **telnet** command from the command prompt on the appropriate Application Server.

The syntax for telnetting to the mail server is: **telnet <MAIL SERVER NAME> <LISTENING PORT>**

For example, **telnet mail.eskowebcenter5.com 25** tries to connect to the mail server `mail.eskowebcenter5.com` that is listening for mail session connections on port 25.

If the telnet command connects to the server, you should also send a **EHLO** command in the Command Prompt window, to make sure it is prepared to accept incoming e-mail messages. The Output of the EHLO command should return **OK** on the last line. If the output return another result, consult your mail server administrator.

### Symptom: Sending a Test Mail succeeded but WebCenter notifications are not sent.

**Possible resolution:** This situation points toward a possible error in notification handling on the client and/or server side. You should first check the Application Server and the Web Server logs for any error messages.

On the Application Server:

- mail service is logging under this header: `com.esko.webcenter.service.MailDispatcher onMessage`

- notification message e-mail creation and sending to a JMS queue is logging under this header: `com.esko.webcenter.mail.MailNotificationBean`

On the Web Server:

- notification message data preparation is logging under this header: `com.esko.webcenter.jsp.TaskNotificationMgr` (where the Task part is replaced by an appropriate Notification Type that you're looking for; other possibilities might be `ApprovalNotificationMgr`, `ProjectNotificationMgr` and so on; search for `NotificationMgr` inside the Web Server log file).



**Note:** WebCenter MBean Services will have their own log files in the future.

If you cannot find any suspicious log messages related to any of the notification dispatchment phases, you should also check the **JMS E-mail Queue** for corrupted messages that block correct messages from being sent.

To inspect the e-mail queue:

- Open the Wildfly administrator console by connecting to the Application server and using the url: `localhost:1090`. (Note by default the management interface is only deployed on the localhost network adapter, and thus can only be reached from localhost)
- Navigate through the interface to the `WCRMailQueue` by clicking the Runtime tab.
- Expand the following submenus: `Standalone Server > Subsystems > Messaging - ActiveMQ`

The screenshot shows the WildFly administrator console interface. At the top, there are navigation tabs: Home, Deployments, Configuration, Runtime (selected), Access Control, and Patching. On the right, it shows 'Messages: 0' and a user profile 'bgssystem'. The main content area is divided into three columns: Server, Monitor, and Subsystem. Under the Server column, 'Standalone Server' is selected with a 'Reload' button. Under the Monitor column, 'Subsystems' is expanded. Under the Subsystem column, 'Messaging - ActiveMQ' is selected and highlighted in blue, with a 'View' button next to it. To the right of the console, there is a header for 'Messaging - ActiveMQ' with a bar chart icon.

- Click **View** to open the JMS Messaging provider. Currently we only use the default one so click View again in the option column. This will open the metrics view.
- Highlight the `WCRMailQueue`. The Queue Metrics section gives you more information about the current state of the queue.
- Click **Flush** to flush the queue that is currently selected.

WildFly Messages: 4 bgsystem

« Back Server: Standalone Server > Monitor: Subsystems > **Subsystem: Messaging - ActiveMQ**

MESSAGING STATISTICS

JMS Server

- Queues
- Topics
- Pooled Connection Factory
- Prepared Transactions

JMS Queue Metrics: Provider 'default'

Metrics for JMS queues. Flush

Name	JNDI
ExpiryQueue	[java:/jms/queue/ExpiryQueue]
DLQ	[java:/jms/queue/DLQ]
WCRMailQueue	[java:/jms/queue/WCRMailQueue]

« < 1-3 of 3 > »

Queue Metrics Refresh Results

- Consumer Count 10
- Message Count 0
- Messages Added 0
- Scheduled Count 0

**Symptom: If the e-mail notification seems to be sent correctly, but the recipient doesn't receive it:**

**Possible resolution:** This situation indicates that there are issues on the mail server side. The e-mail service within WebCenter is only responsible for connecting to an appropriate mail server and dispatching e-mail message through this connection. Further processes that run on the mail server side are out of the scope of WebCenter. There are several aspects of the mail server configuration that affect if the WebCenter notifications really get sent to the appropriate recipients:

- **Spam policy:** messages may be considered spam by the server. It is important to have a valid e-mail address in the FROM address field on the E-mail Environment Setup page in case there is a spam policy in place on the appropriate Mail Server
- **Authenticated mail session:** this situation is already observed by the e-mail service, but some mail servers might be configured more strictly in this respect.
- **Internal vs. external recipient addresses:** some mail servers are configured to process outgoing e-mail messages based on their target e-mail addresses. The distinction is between internal addresses and external addresses is determined by the domain part of the address. For example, the domain part of user@esko.com is esko.com. The mail server may be configured to dispatch e-mail messages to an internal address (so, from the example above, a mail server with hostname of xxx.esko.com would consider user@esko.com to be internal, while user@elsewhere.cz would be external), but it would not send any messages to an external target.

All these issues are determined by the setup of a given mail server, so if you encounter any indications toward such issues, consult the mail server administrator.

But how would you find out what happens on the mail server when the WebCenter mail service communicates with it? There is an option to turn on a debug mode for mail sessions in the Mail Dispatcher MBean.

To do so, open the JMX Console of the running WebCenter JBoss Server and open the management interface of the Mail Dispatcher Mbean (at the bottom of the entire list of registered Mbeans under the section **webcenter** and service name **service=MailDispatcher**). Inside the management interface is a List of Mbean Attributes.

Change the **DebugSession** attribute to **TRUE**, which will switch the mail session to debug mode.

If you turn on debug mode, the log file on the Application Server will contain a log of the communication between the WebCenter mail server and the mail server. Inspect these extra log messages to see what your problem may be and report the results to the mail server administrator.

## 6.5.7. Troubleshooting proxy servers

### The influence of proxy servers on your configuration

A proxy server services the requests of its clients by forwarding requests to other servers. The client is mostly a browser but it can also be another computer program like Automation Engine.

The proxy server provides the resource by connecting to the specified server and requesting the service on behalf of the client. A proxy server may optionally alter the client's request or the server's response, and sometimes it may serve the request without contacting the specified server.

A proxy server that passes all requests and replies unmodified is usually called a gateway or sometimes tunnelling proxy.

For the Automation Engine to WebCenter connectivity, proxy servers that just act as a gateway are ideal. No extra configuration is required.

- In the other case (not a pure gateway) it can happen that the proxy server is programmed to act differently than expected on the Automation Engine calls to WebCenter.
- It might decide to just not pass them through; Automation Engine to WebCenter upload fails.
- It might request authentication; nobody there to answer the authentication request since Automation Engine is an automatic program.
- It might bother the Java viewing.
- It might slow down the communication.
- It might bother the JMS connectivity in the approval feedback.

Most problems can be solved by bringing the proxy server closer to the ideal gateway situation. However, in many cases it is difficult to convince the local IT people to do any changes to the setup.

### How to detect proxy problems?

Proxy problems are mostly detected because certain operations between Automation Engine and WebCenter fail:

- Upload from Automation Engine to WebCenter fails.
- Approval feedback from WebCenter to Automation Engine fails.

Proxy problems are not the only possible reasons why these operations can fail. Other reasons are:

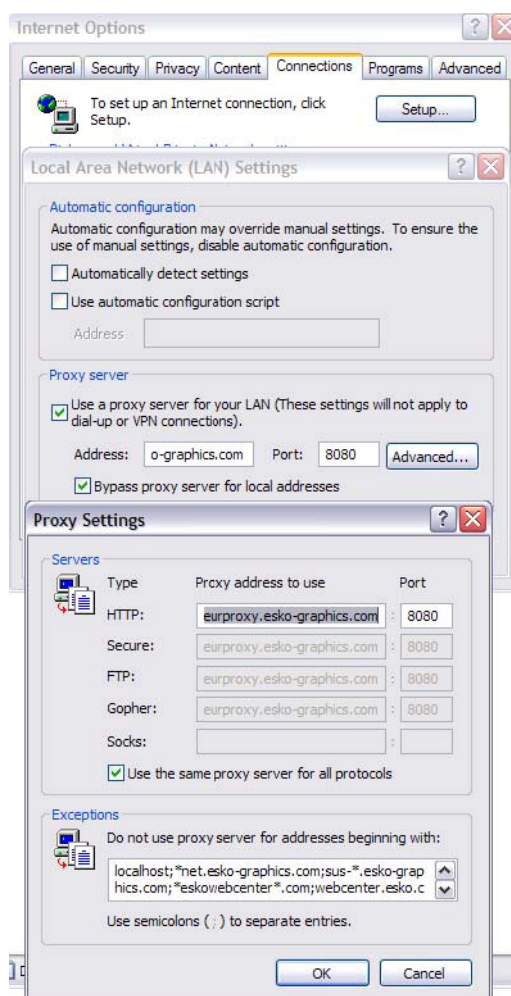
- Wrong parameters in the upload ticket (mistakes with user accounts, passwords, network address of the web server, ...).
- Broken networks



The best way to troubleshoot is as follows:

- Check whether you can reach WebCenter from a normal internet browser from the Automation Engine computer. If that doesn't work, first troubleshoot this. Check whether WebCenter itself is on the internet (can you reach it from anywhere?). If that works, try reaching Google from the Automation Engine computer. If that doesn't work, your Automation Engine computer is not connected to the internet. Contact local IT to get this fixed. If you can reach Google, but not WebCenter and you can reach WebCenter from outside, then there is a big chance that proxy settings are in the game.
- If you can reach WebCenter from a browser but upload doesn't work, then first check the connection in Automation Engine configure (there is a check button). If this works, double check the ticket settings. If it doesn't work, it means that Automation Engine doesn't have the same abilities to go to the internet as a browser. Mostly this means that the browser has a proxy setting in use.

In your browser, check the LAN settings for your internet connection. This is usually found under Internet Options, Connections where you normally can see whether a proxy server is used and what settings it uses for the HTTP connection. These same settings need to be used by Automation Engine.



You need:

- Name of the proxy server for HTTP, further called proxyHost
- Port number, further called proxyPort
- In some cases (not so common) it is also possible that the proxy server demands authentication. You might see this because an authentication window displays when trying to connect to Google or WebCenter via the browser. In that case you'll also need a username and a password. You should get this from local IT. This username is further called proxyUser and the password is proxyPassword.
- We have a tool (makeurlconnection.jar) to test a connection with these settings before even trying them out of Automation Engine. The tool is used as follows:
  - Save the **makeurlconnection.jar** file somewhere on the disk of the Automation Engine server. Open a command prompt, go to that directory and type the following command:
  - Simplest form:

```
Java.exe -jar makeurlconnection.jar
http://the_url_to_the_login_page_of_their_webcenter.
```



**Note:** The above command supposes that java.exe is in the path. If not, you need to specify the location of java.exe, for example.

```
"C:\Program Files\Java\jre1.6.0_01\bin\java.exe" ... (other parameters as
above)
```

It also supposes that it is Java 1.6. It is possible you need to install Java 1.6 first.

This checks whether a connection can be made without specifying anything about the proxy server. If this works, you get the WebCenter login html code dumped on your screen (scroll back to verify this). If it doesn't work, you either get an error message or it hangs (type Ctrl-C in that case).

In case it doesn't work, try specifying the just-found parameters. The most complex form is:

```
Java.exe -Dhttp.proxyHost="name of their proxy server" -Dhttp.proxyPort="80"
-Dhttp.proxyUser="their_domain_if_applicable\user name" -Dhttp.proxyPassword="guess
what comes
here" -jar makeurlconnection.jar
http://the_url_to_the_login_page_of_their_webcenter.
```



**Note:** All the parameters are case-sensitive. Get help from your local IT administrator if necessary.

Once you know these settings, you need to use them in Automation Engine.

Running cfsedt2.bat in ..\bg\_prog\_fastserverclnt\_v070\com\_win. Browse to the keys as shown in the screenshot and modify the values. Do a "net stop bgmd" and "net start bgmd" to activate the changes. Then the upload from Automation Engine to WebCenter should work.

