WebCenter 20

Administration Guide

ESKO✲

Contents

1. Copyright Notice

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2. What's New in WebCenter 20

WebCenter 20 is a major release of the WebCenter including new and much improved functionality in the following areas:

UX improvements

- Extended dashboard framework
- Re-usable My Work Dashboard support
- Support for user Profile Pictures
- Drop-zones for Project Creation and Document Upload
- Faster upload in all places

Inline Editing in Search results and Dashboards

- Edit any information you want inside the Search Results
- Create a Project in the Dashboard
- Execute **simple** Tasks inside a Dashboard Todo Feed

Search

- Bulk editing on Task information. Re-assign Tasks in bulk.
- UX improvements

Sharing to View and Forwarding Approval to registered and unregistered users (new option)

Viewer

- Viewer workspaces
- Modernized UI
- Text editing in artwork (option)
- Content Compare (Dynamic Content and PCM)

Color Trace Solution (option)

Assisted QA - Connectivity to third-party Text Comparison tools (new option)

Project Cleanup and Archival in Esko Cloud (new option)

Content Management Improvements

- Table improvements
- Content Sheet compare
- New CHILI preview

Workflow Improvements

- Manage Project Members in Workflow
- Document life-cycle nodes
- JS API extensions

Configuration Audit Trail

Performance

- Instant (chunked) Document Upload
- Optimized form rendering

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.

3.1. 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.

3.2. 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*

- 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* for more details). An administrator can customize the menus.
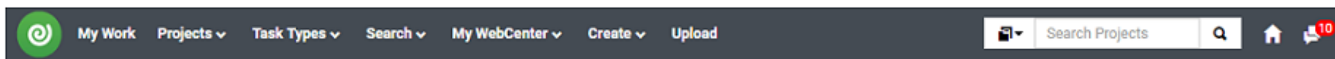
If you have the optional Task Management module and the **User Can Create Task Type** permission, **Task Types** also appears in the top menu bar.

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...)
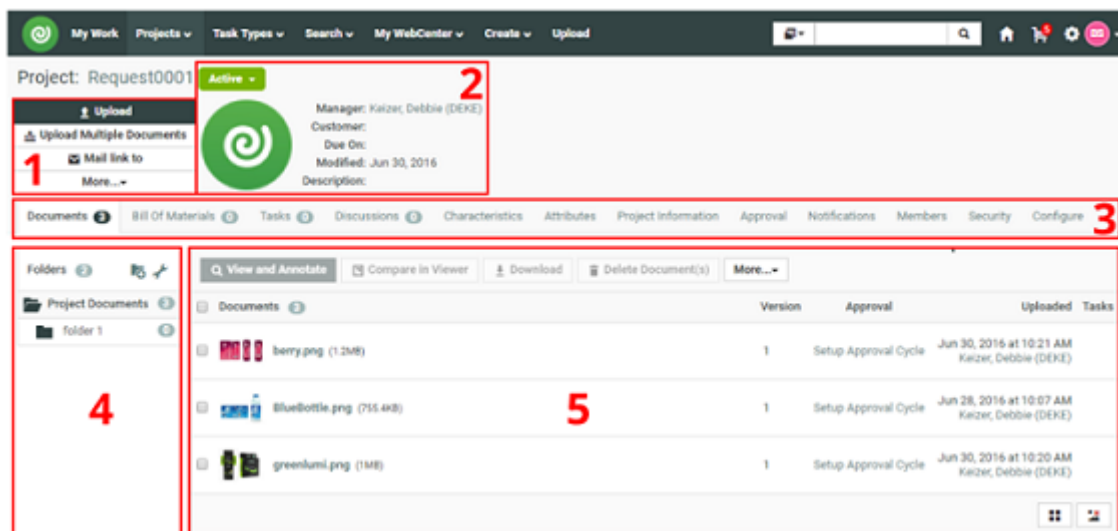
- **Area 2** is the Project Details area, containing the project icon, the name and description of the project, the project status...

- **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. 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.

3.4. 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.

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*

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 chosen, further drop down is shown to chose from the existing Dashboard or 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 chose 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 401 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 Autoname Generation

Use the **Project Autoname 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*.

4.1.1. Viewer

- Select your **Viewer Type**. You can set your preference to the *HTML5 Viewer* or keep at the default (*Java Viewer*).

  Note: You can always switch to *Java Viewer* from *HTML5 Viewer* using the ♨ button.

- **Viewer and Workflow Applet**: When *opening a document in the Viewer* or when *creating a workflow*, WebCenter will download a Java applet to your computer.

  From Java 1.7.0_21 (for Windows and Mac OS X 10.7 or later), you will get a security warning as the one below when the applet is downloaded. This makes the WebCenter applet look like a security risk for your computer.
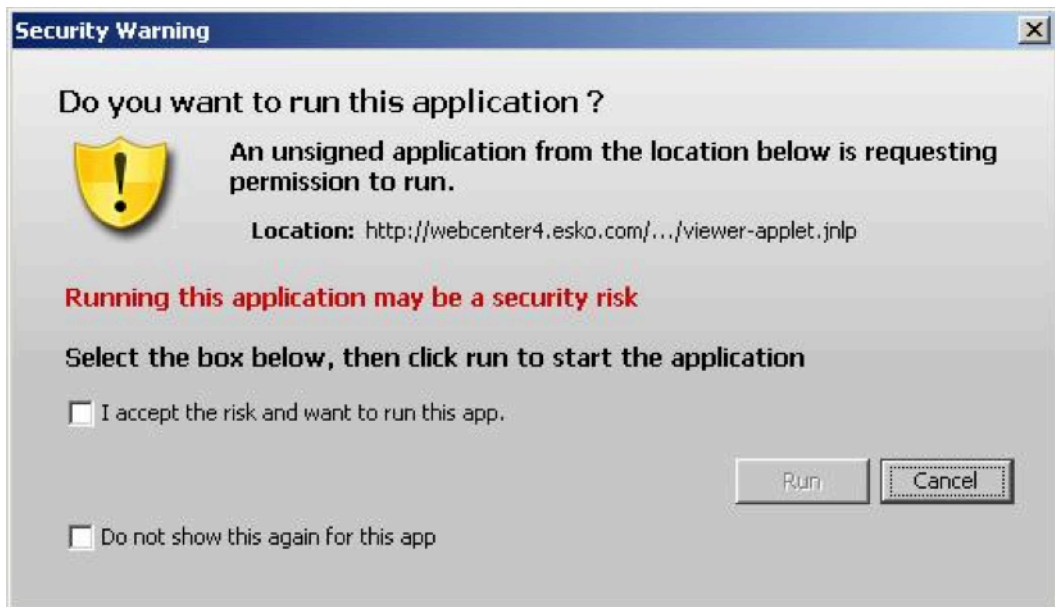
You can adapt how this security warning will look like when downloading the applet. In **Viewer and Workflow Applet**, choose either:

- **Signed (sandboxed)** if you want to run the applet in a strict sandboxed environment (with no access to your computer's resources). As the applet is signed by Esko, the security warning looks less threatening.
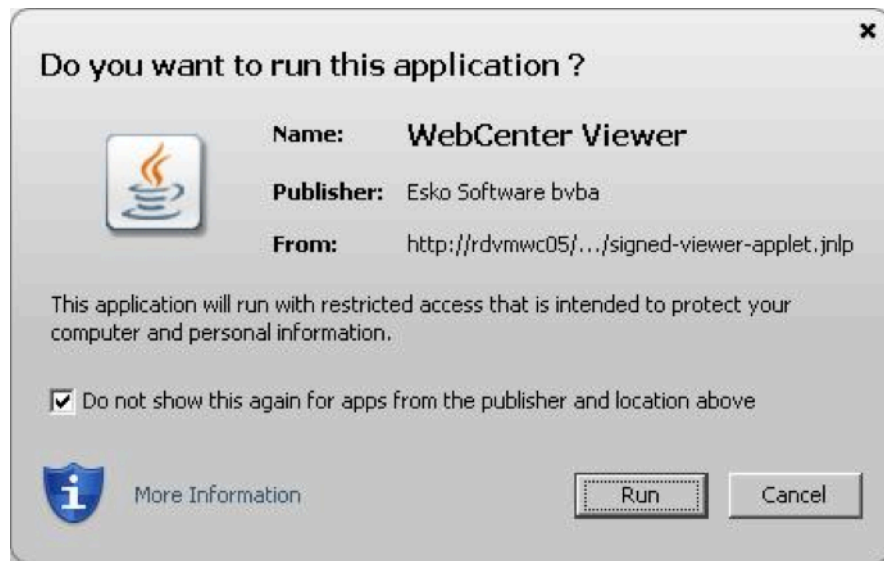
Note:

As the applet is sandboxed, it will also show a warning when trying to print from the Viewer. You will just need to click **OK** to be able to print.
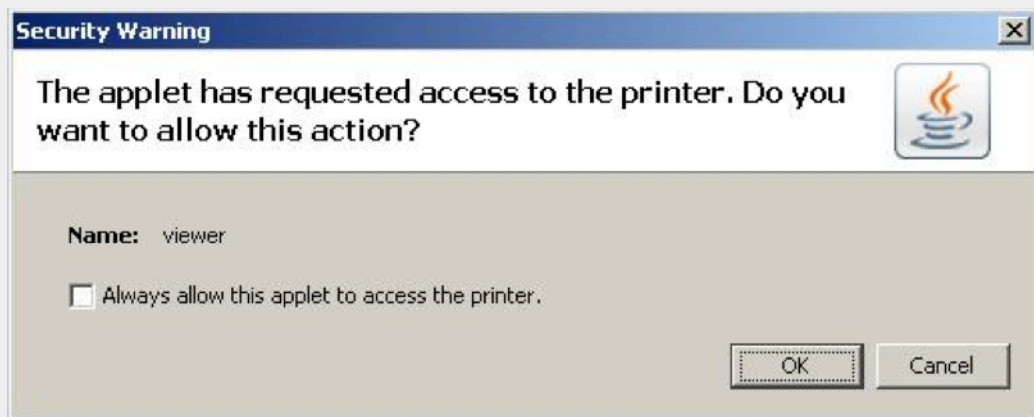
- **Signed (not sandboxed)** if you want to run the applet without restricting it to a sandbox (the applet can request additional access to your computer's resources). This means that you will not get an additional warning when printing from the Viewer.

  As the applet is signed by Esko, the security warning looks less threatening.
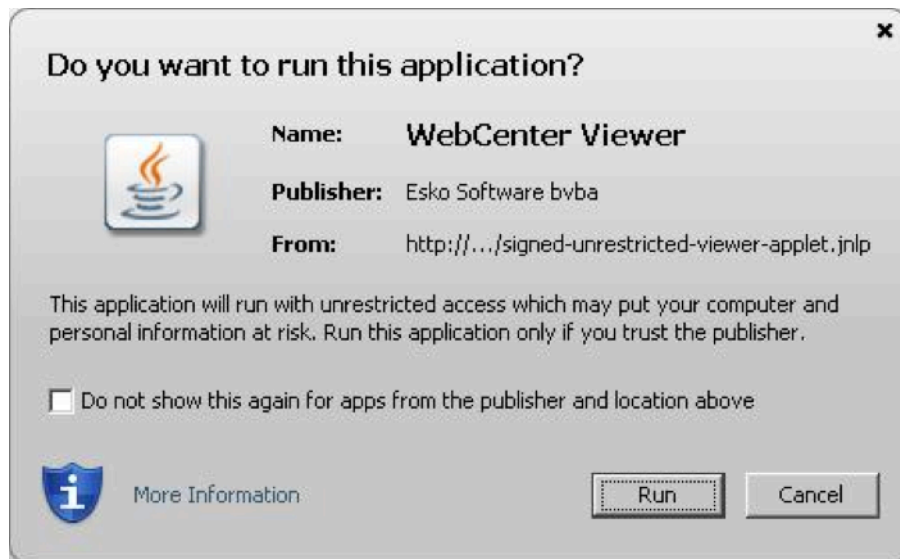
- **Unsigned** if you want to run the applet as a default unsigned applet. You will get the default security warning that does not mention Esko, but the applet will be sandboxed. This means that you will have an additional security warning when printing from the Viewer, as for the **Signed (sandboxed)** applet.

Tip:

By default, the applet is set to run as **Signed (sandboxed)**. This will work fine for most users.

More frequent users may want to switch to the **Signed (not sandboxed)** option to avoid always having to click an extra warning away when printing from the Viewer.

Mac OSX 10.6 users running Java 1.6.0 may also want to switch to the **Signed (not sandboxed)** option to avoid getting a warning when closing the Viewer by clicking ⊗.

With the latest versions of Java 1.7 installed, most browsers block unsigned applets by default. In this situation, it is recommended to use one of the signed settings instead.

- **Viewer Style (Java Viewer)** sets the Viewer mode as:

  - **Normal** (Default): All HTML5 Viewer features are available in this mode.

  - **Restricted**: In this mode, the user cannot access features such as *Channels widget*, *CAD widget* and *View widget*.

    The side panels displaying the widgets will be in a collapsed format by default.

  - **Advanced**: In Java Viewer all features are activated.

- **Viewer Workspace**: Select any workspace from the drop down 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 **Viewer 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.

     Note: This setting is applicable to both the HTML5 and Java Viewers.

- **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.

4.1.2. 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.

4.1.3. 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.
-

4.1.4. Packaging Content Management

> **Note:** You need the Packaging Content Management license to be able to use this module.

Smart Role Names for Editors and Approvers
To work with language specific *Smart Role Naming* on page 454 specify your:

- **Language Editor Role Prefix**/ **Language Editor Role Suffix**

- **Language Approver Role Prefix** /**Language Approver Role Suffix**

- **Add Language Role Prefix**/ **Add Language Role 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, values in **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 taken to calculate the role names for Editor, Approver Text Content and Add Language permissions.

A change in a Text document creates a new document version. To allow or prevent the users from creating new Revisions use the **Revision Raise** option:

Select **Raise revision when Master Text Contents are updated** to allow raising a Revision when master text is updated.

Select **Never raise revision** if master text changes should not be saved as a new Revision.

Note: This setting is independent of the **Allow raising Document Revision when uploading a new Document Version** setting.

Copy comments from a text document

Choose either to **Keep Comments** or **Remove comments if state reverted to Draft** or **Remove Comments always** when copying a document.

You can choose the option **Keep Comments** to copy all the comments when copying a document.

Comments are cleared if the state of the element is changed to draft, when the option **Remove Comments if state reverted to Draft** is chosen.

Similarly, all the comments in the elements are cleared while copying, when the option **Remove Comment always** is chosen.

Note: Same behavior is replicated in workflow when documents are copied using Copy/ Move Document. Move document option does not respect this setting.

4.1.5. Workflow Editor

By default, HTML5 is used as Workflow editor.

4.1.6. 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.

4.1.7. 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*.

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*.

4.3. Security Preferences

Use the **Security** preferences if you want to tighten the security in WebCenteryour Web Center.

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

- **Approval**

  - **Allow Approval outside the Viewer** option allows approval only in the HTML Viewer and the approval option is disabled otherwise.

  - **Allow Force Approval** lets Project Managers Force Approve documents.

  - **Allow Force Rejection** lets Project Managers Force Reject documents.

  - **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), he/she 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*.

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*.

4.4.1. 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** .

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*.

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 217 and *Edit a Company* on page 206).

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*.

4.6.1. 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:
>
>
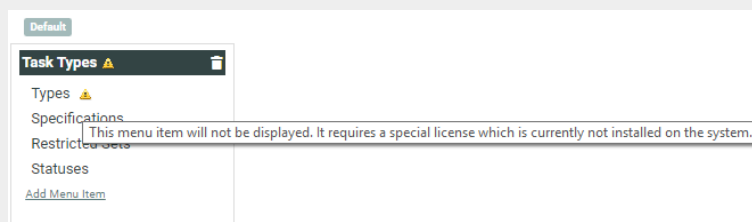
4. Assign the menu to the user, group or company you created it for.

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**.
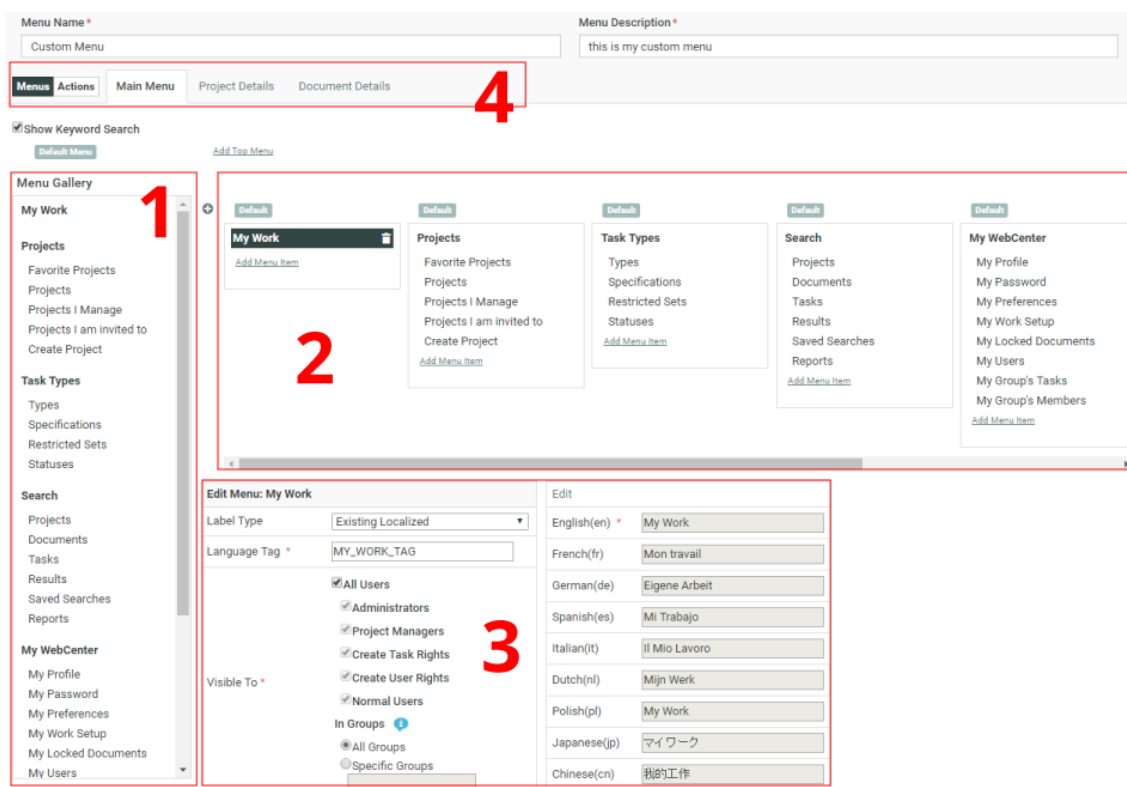
On the left hand side, you can see the **Menu Gallery** (1) containing the default menu items in bold, and the default sub menu items under them.

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:

> **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*).
   >
   > 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 your 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*).
>
> 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 your 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**

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.

4.6.2. 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.

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 Documents (Table) and Project Bill of Materials (Table) determine the Actions in the table headers on the Project Details Documents and BOM pages.

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).

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.

Search

It is possible to customize the table header Actions for both Project and Document Search Results.

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.
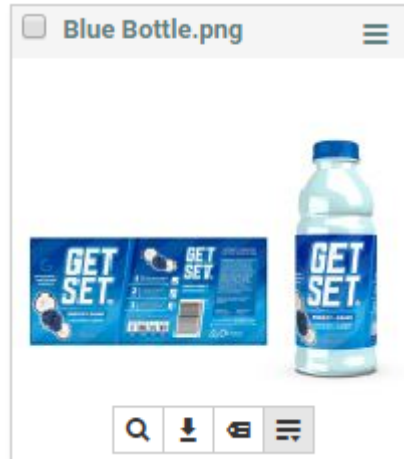
For Search, it is possible to add an extra filter in individual Saved Searches based on **Tag** values defined in the Action configuration. See *Action Settings* on page 49 for more details.

Cart

The Cart Projects and Document pages have table header Actions which can be customized.
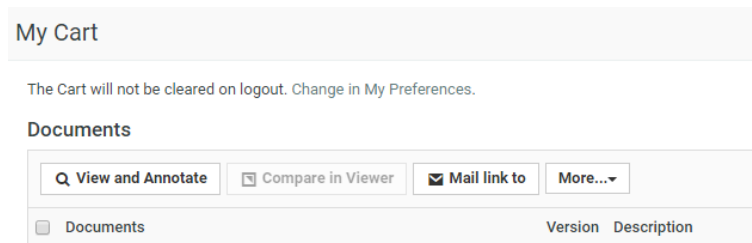
My Work

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.
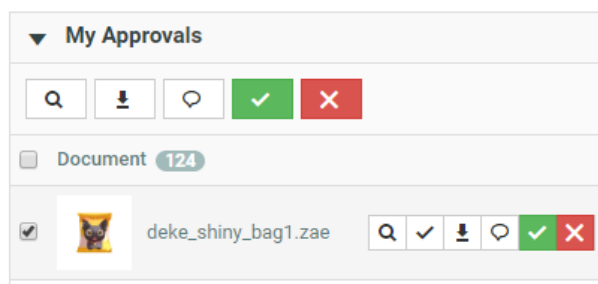
Action Settings

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.
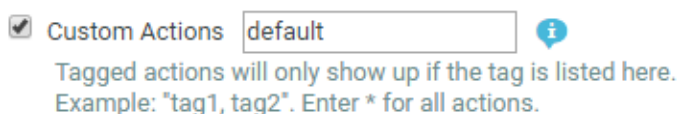
Task Settings

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 50.

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*".
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.

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**.
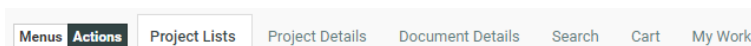
2. Select the page/section you would like to customize.

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 49.

5. Once your are done, save your Menu.

> **Note:** To see the Menu changes in effect, any User assigned this particular Menu needs to logout and login.

4.6.3. 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 39).

3. Click **Save** at the bottom of the page when you are done editing the menu.

4.6.4. 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.
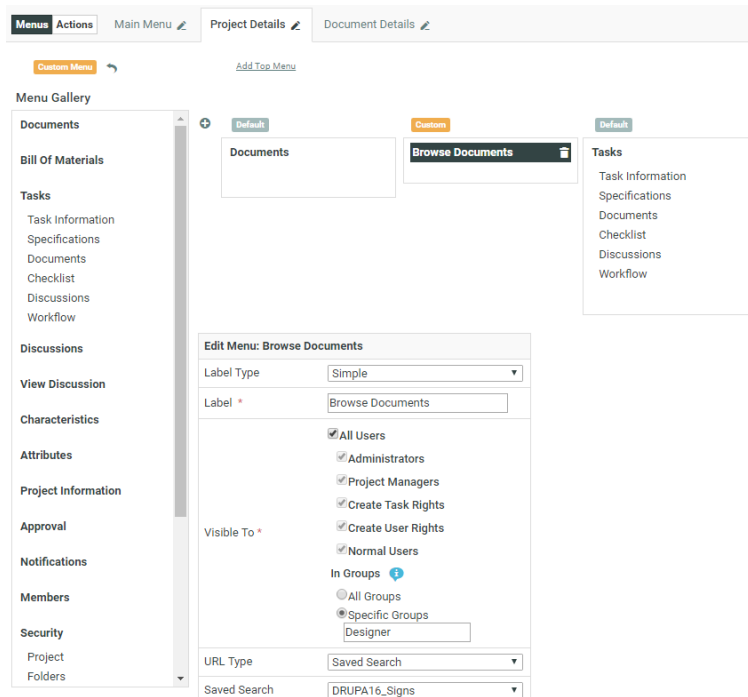
4. Edit the menu item. Select the **URL Type** as:

   - **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 180.

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.

4.6.5. 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* 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.

4.6.6. 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.

4.6.7. 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.

4.6.8. 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.

4.6.9. 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**.

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 215 and *Create a New Company* on page 206).

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*.

4.7.1. About My Work page

A **My Work** page can be customized using various blocks that are available.

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...
My Approvals	a list of documents a user has to approve or reject.
My Recently Submitted Approvals	a list of documents a user has recently approved or rejected.
My Approvals to Follow Up	a list of documents for which a user is **Approval Master**.
My Tasks	a list of tasks assigned to a user

This section...	will show...
My Recently Handled Tasks	a list of tasks a user has recently handled
My ToDo List	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 58.

4.7.2. 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* 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 able to use this section.

10. Click **Create**.

4.7.3. 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.
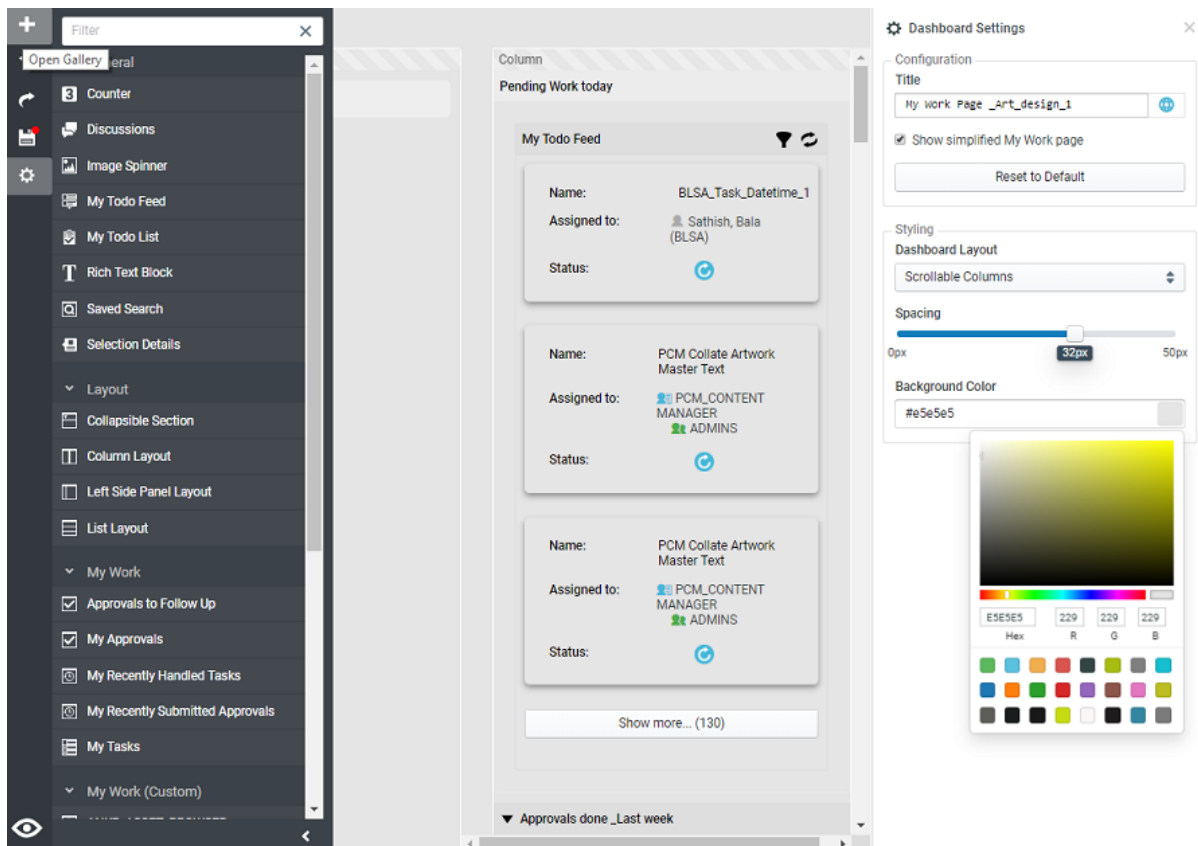
Following options are available in the drop down:

- **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 187

- **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 188

  - **Image Spinner**: Read more about this block *Image Spinner* on page 193

- **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.

4.7.4. 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 59

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 209.

4.8. Dashboard

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

Create Dashboard

You can create a dashboard by clicking on **Create Dashboard** option. To know more about Dashboard Configuration, read *Dashboard Builder* on page 62.

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*

4.8.1. 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 two layouts available in Dashboard, namely:

- **Default** where the blocks are shown in a list
- **Scrollable Columns** where they allow you to scroll every column separately

You can set the background color of the dashboard. 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 and can be read *here*. Options available for conditional formatting depends upon the context of the dashboard.

Note: This option is not visible when the dashboard is created for unspecified context and in scrollable columns.

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.
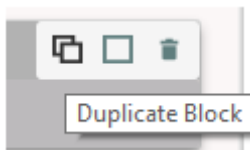
Duplicating also works on all the layout blocks. When layout blocks are duplicated, all the blocks in that particular layout block are duplicated. This allows for fast layout creation in the dashboard.

Drag and Drop

You can now easily configure the dashboard with simple drag and drop operations. Columns can also be rearranged or new columns can also be created with drag and drop.

Dashboard Context Simulator

You can view the Dashboard for a selected Project, Document or Task with this option.
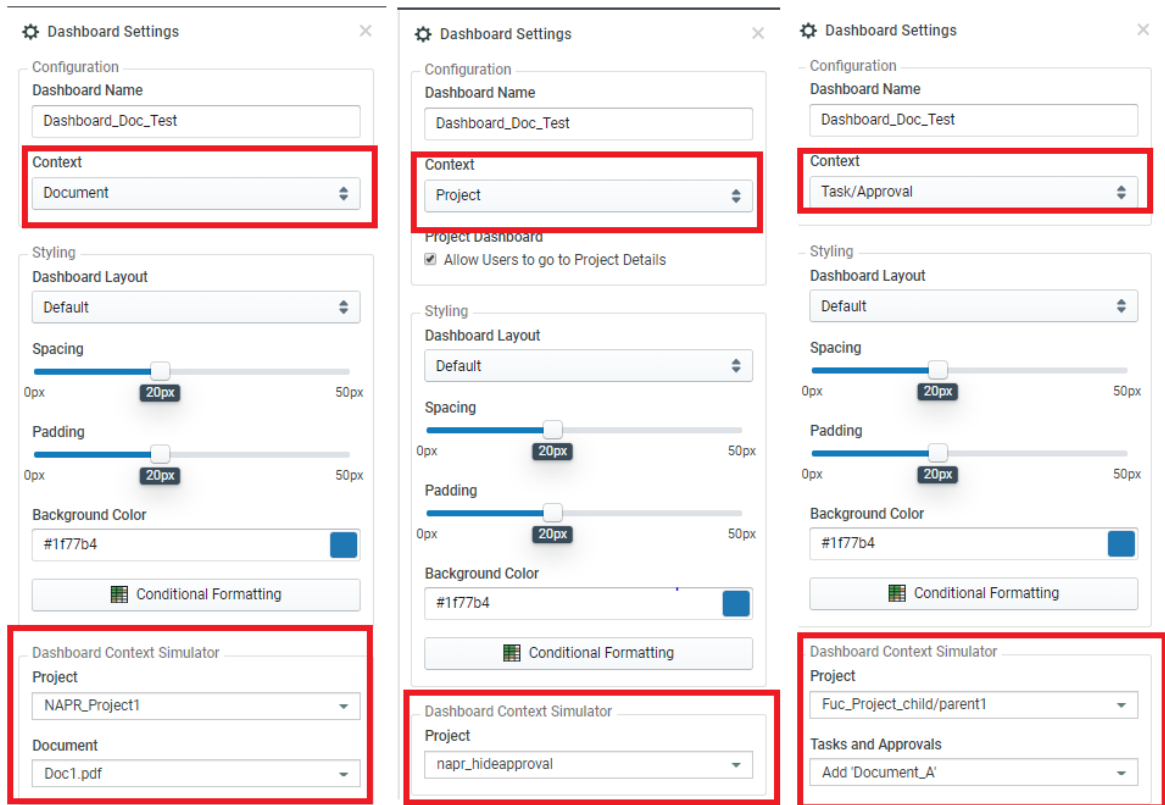
In the **Dashboard Context Simulator** option when

- 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.
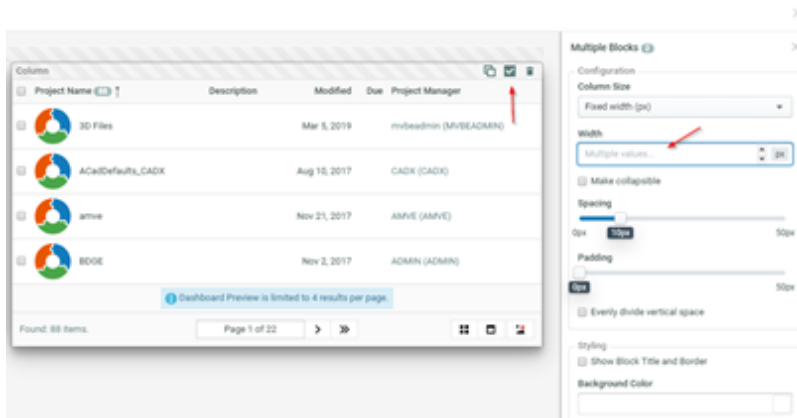
Delete Blocks

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.

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.
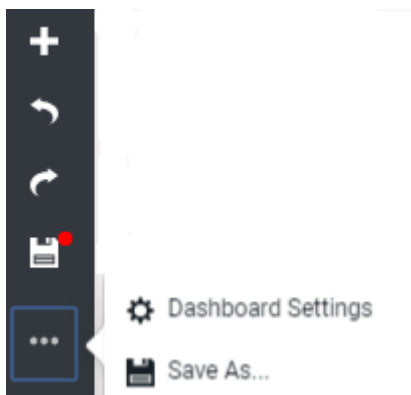
You can view any dashboard when it is built using the preview 👁 icon in the bottom left corner. In the preview mode, you have the gear icon which returns back to the dashboard builder.

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

4.8.2. Dashboard Gallery

Gallery consists of all the blocks that can be added to make a dashboard. It is located in the left side on the Dashboard configuration page. You can open the gallery by hovering on the **+.**

This lists all the available blocks and it varies upon the context of the dashboard created.

General

This comprises of the blocks which are available irrespective of the context of the Dashboard.

- **Counter**: You can specify a **Saved Search** and the results of the search will be counted in the Counter.

- **Dashboard Block**: To reuse a configuration in different dashboards in the current dashboard.

  Note: Use this option sparingly, as this might slower 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 193

- **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 Block**: 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 Block**: Add 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.

- **Button Block** : 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 Block**: 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*.

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 on these blocks which behaves 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 attributes category of the Project, Document or Task in read-only mode.

- **Approval setup** : shows the approval setup of a Document. This block is available only for document context.

Action Buttons

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.

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

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.
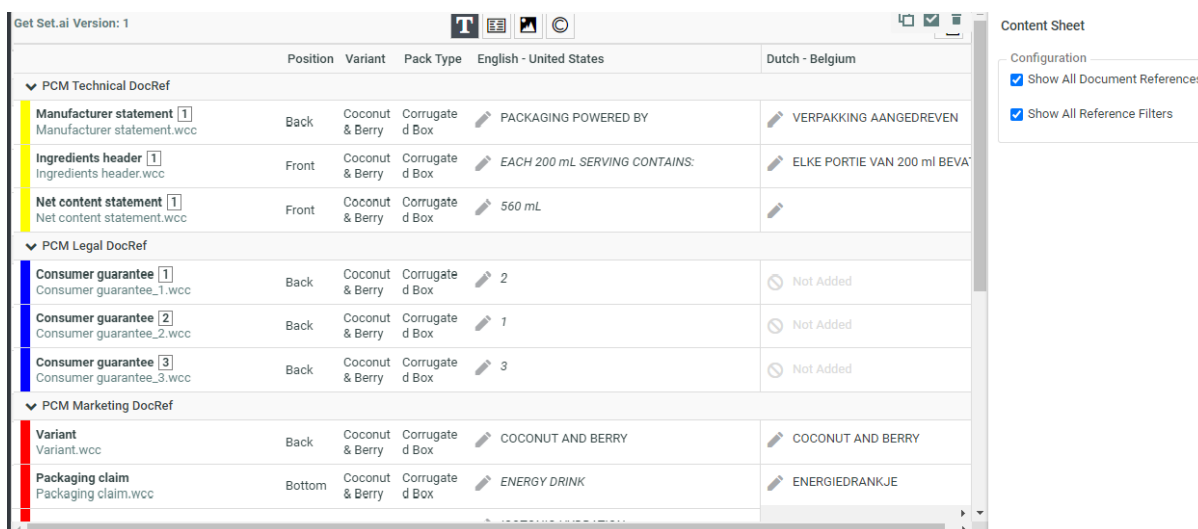
You can navigate to the previous or next page with the back and forward buttons, when the text search matches are on multiple pages.

Content Sheet Block

Content sheet block in Dashboard, enables to view and compare the content sheets easily. 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.

Configuration of the Block

- Show All Document References
- Show All Reference Filters

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

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.

Menu Layout

A new layout option has been introduced that makes dashboards more interactive and visually appealing. User Interface can be designed to alternate between views within the same context, in the same dashboard.
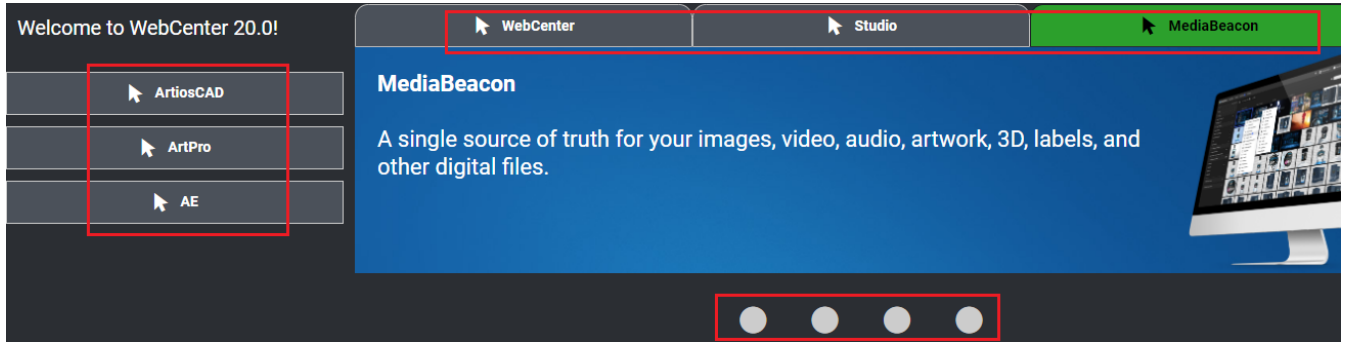
Tabs can be added either to top or left or in the bottom. Above screen shots example shows tabs added with all the three options.

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.

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.

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 Dashboard

Dashboards are more interactive to edit the data which can be saved and have forms where input can be added. Project creation has been incorporated to enable easier collection of information with specific action driven pages in Dashboard.

Admin users can now choose the Dashboard function as a **Creation Form** in the Project context. Then an option is available to add a **Save** and **Cancel** button.
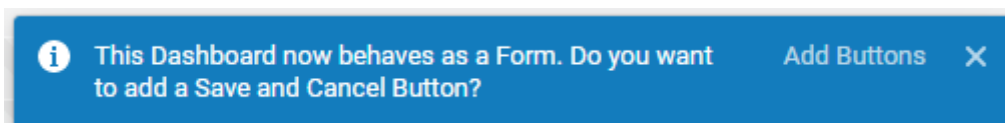
You can create customized Projects from an existing Project or a Template which are available in the drop down. Or when no Project or Template is selected, a blank project is created.

Save and **Cancel** buttons can be formatted with various configuration parameters available for the blocks.

Creating Project from Button Block

Here is an example of a Project created from *Button block*.

You can configure a Button block to open a Dashboard and the Dashboard can be further configured to open a project creation form as shown in the image below.
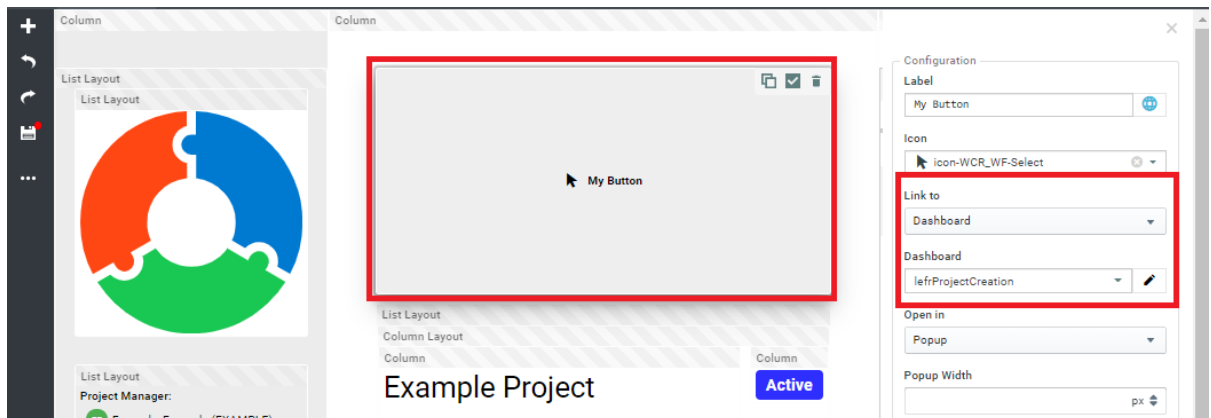
To use the Button with a Project Creation dashboard, follow the steps below.

1. Create a Dashboard with Project as **Context.**
2. Choose the Function as **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 document can be added for the project created.
7. Now create another Dashboard with any context that you need and choose the Button Block and link it to the dashboard created earlier.
8. Save the Dashboard.

Creating Projects from 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.
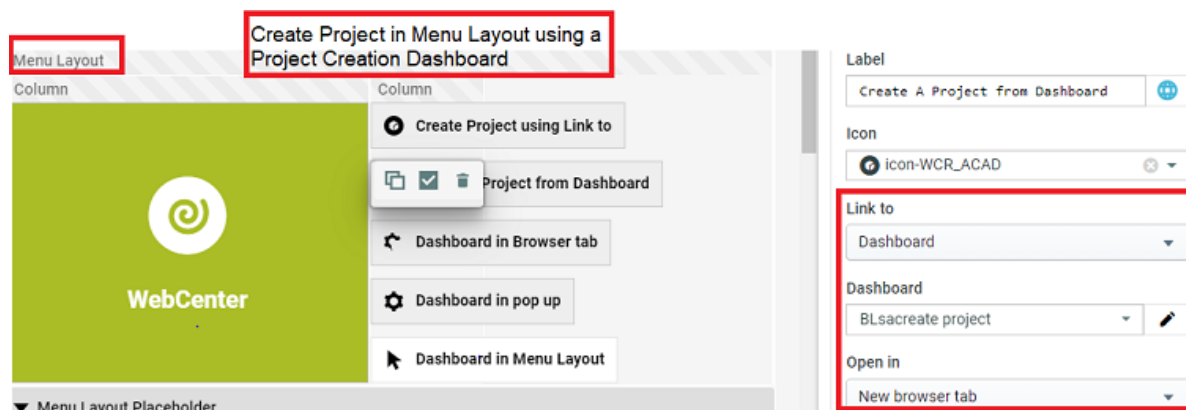
Configuring list of Documents as Tables

Configure 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

When any option other than **Simple Text** is chosen for Display style, the below options are available.

- **Configure Columns** allows 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** open a popup where you can choose the layout options (similar to search results Layout)

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.

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.

Note: Excel based lists are not compatible with Dashboards

Document Sources for Dashboards

You can create specified areas in Dashboard that can be configured to drop the documents, which can used for Project Creation. You can configure document sources for the field when the layout option chosen is not **Simple Text**. When any of the other option is chosen, **Configure Sources** is available. 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 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 a **Browse** option or a **Saved Search** option from the **Configure Sources** pop up.

- **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 saved search with SmartNames are chosen, the SmartNames are resolved and rendered.

Drop Zones

Drop zones are designated locations in the Dashboard where you can add **Documents** or **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, to create a new project.

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.

The added items can be shown as a table or the number of documents added can be shown in counter.
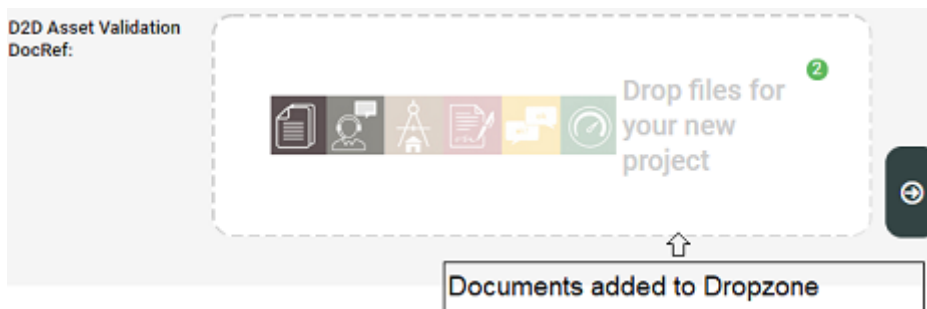
You can configure the Drop zone to add the document from either of the options below

- **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 there are multiple dropzone sources configured, the dropzone will show them 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.

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.

5. 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*.

5.1. 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.
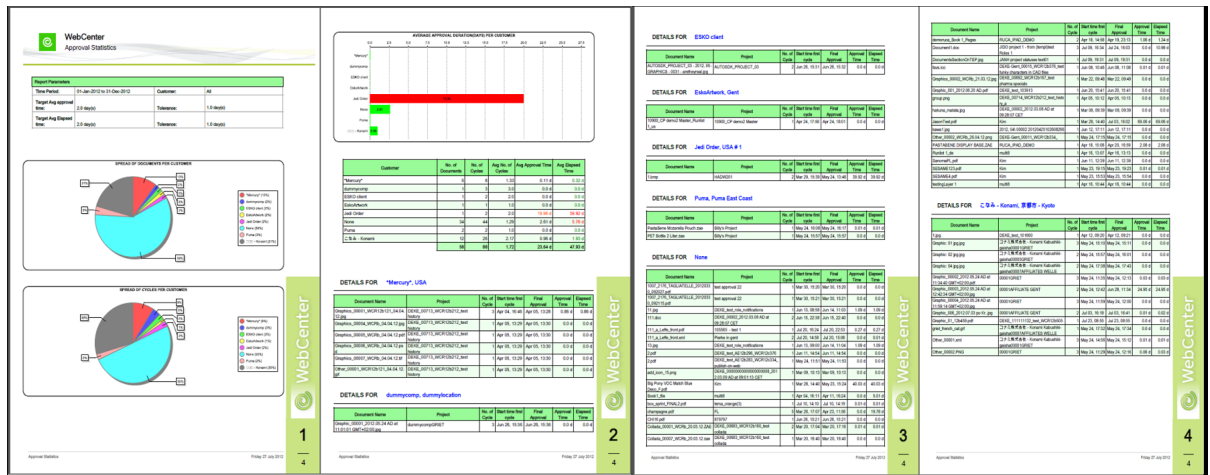
5.2. Types of Reports Available

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.

- **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).
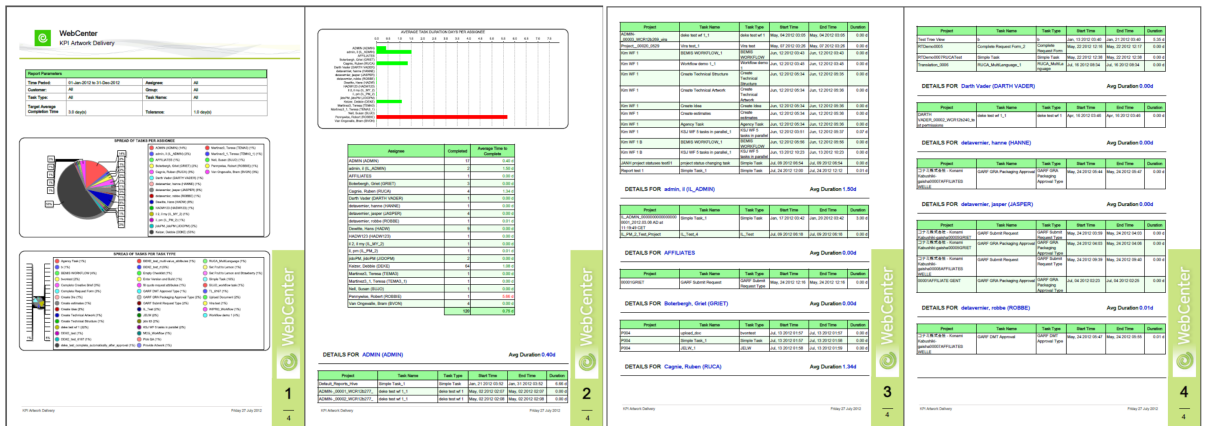
- **Attribute Category (Built In) Report**: Built-in reports are available for Attribute Category in both PDF and Excel formats.

  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.
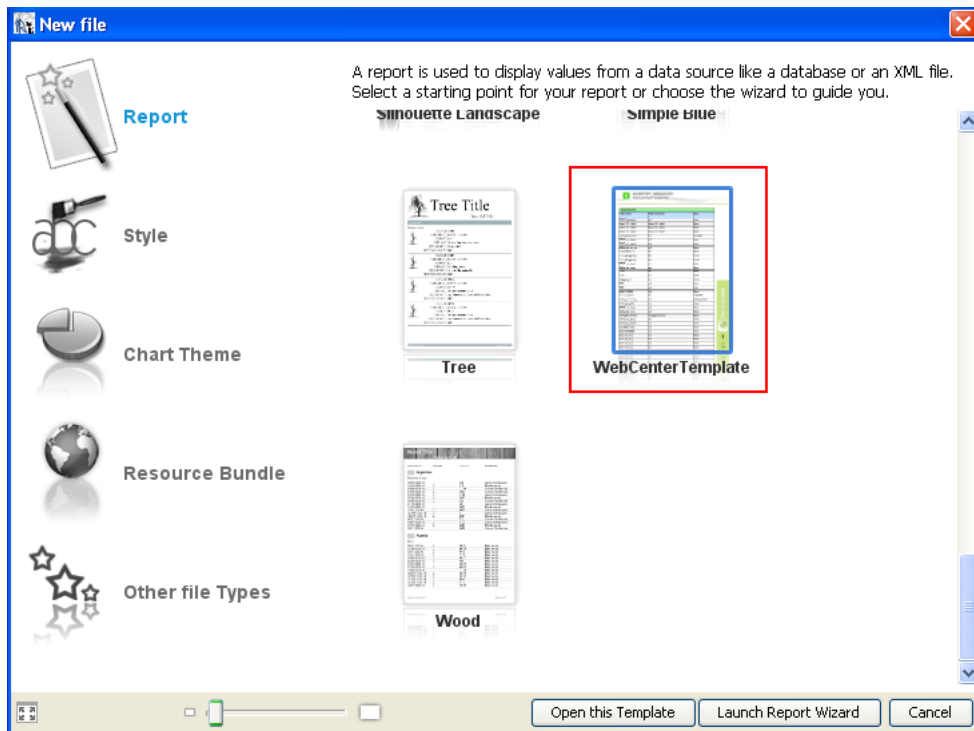
5.3. Configuring a Report

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.

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.

5.4. 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.

5.4.1. 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.

5.5. 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
⬆ Upload Report				
Approval Statistic (built-in)-Testing	⬇ ✏ 🗑	A test report...	ADMIN	Dec 19, 2013

6. 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

6.1. 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.

6.2. 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.

6.2.1. 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.

6.2.2. 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 249.

Note: The data **Type** is always **Text** in a boards Restricted Set.

6.3. 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.

6.3.1. 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
BOARD	The type of board to use for the design. Used for every CAD standard (this is a **Required** attribute).	A **Restricted Set** of **Text** type. Set your desired values in the Restricted Set.
L, **W** and **D**	Length, Width and Depth. Used for most CAD standards.	**Prompted** values (the user can set what he/she wants) of **Distance**(in,mm), **Distance**(in,m) or **Float** type.
ISSTANDARD	To indicate if an ARD document template should be used to run CAD standards or not. • ARD document templates to be used for CAD standards should have **YES** as **ISSTANDARD** value. • ARD document templates NOT to be used for CAD standards should have **NO** as **ISSTANDARD** value.	A **Restricted Set** of **Text** type. The values in the Restricted Set must be **YES** and **NO**.

Attribute	Use case	Values
	This should be a **Hidden** attribute.	
UNITS	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 **My WebCenter** > **My Preferences** by the user.	A **Restricted Set** of **Text** type. The values in the Restricted Set must be **mm** and **in**. **Note:** Value of the Units attribute is not considered when using distance attributes for L,W and D.
ISCORRUGATED	To indicate whether the resulting design should be corrugated. If this attribute is not present, the design is understood NOT to be corrugated.	A **Restricted Set** of **Text** type. The values in the Restricted Set must be **true** and **false**.
GRAIN	To indicate the direction of the flute/grain of the design being created by running the standard.	A **Restricted Set** of **Text** type. The supported values for this attribute are **Horizontal**, **Vertical** and **Standard**. If the value chosen is **Standard**, 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.
SIDE	To indicate the print side of the design that is created by running the standard.	A **Restricted Set** of **Text** type. The supported values for this attribute are **Inside**, **Outside** and **Standard**. If the value chosen is **Standard,** 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 **Outside**.

1. Create the **Restricted Sets** needed by your attributes as listed in the table above.

   See *Create a Restricted Set* on page 249 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 251 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 99.
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 99 for details.

6.3.2. 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.

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 86).

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* and *Copy / Create Multiple Documents*), not the Java applet upload or 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.

6.3.3. 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 86).

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**.
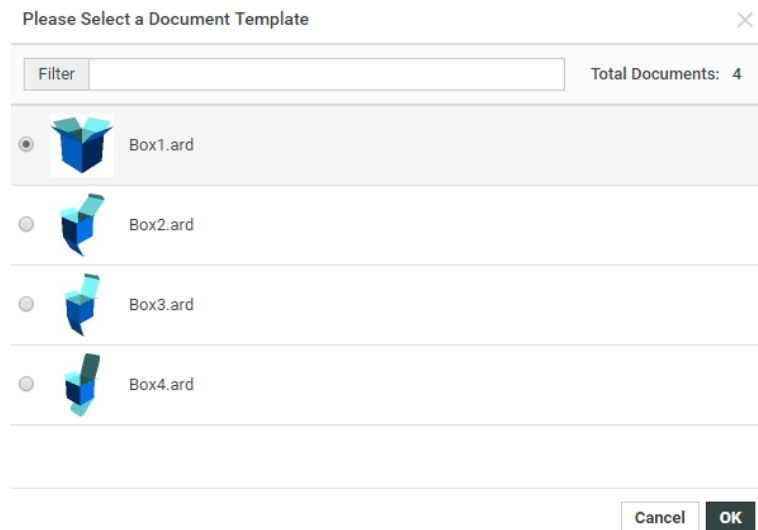
> **Tip:**
>
> If you have many ARD document templates, use the **Filter** field to filter them alphabetically on the file name.
>
> You can also filter them based on document characteristics if you have created a custom project creation page to do so (see *Create a Project and Run a CAD Standard* in 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.

6.4. 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.

7. CHILI

You can edit your documents online using WebCenter - CHILI Publish integration.

7.1. Configure WebCenter–CHILI Server Connection

Administrator users can configure the CHILI server connection by navigating from **Chili** > **CHILI Setup** '.

In the **Chili Setup** page, the following fields must be specified:

* Address to the **CHILI server URL** example: *http://chili01/CHILI/main.asmx*

* **CHILI Share** example: \\chili01\chilishare

* You can choose to select the following optional fields

   * **Use HTML5 Editor**, to open the CHILI documents in HTML5 Editor.

   * **View in Preview mode (Document Attribute Category and CHILI view side by side)** to open the side by side view from thumbnail. *View in Preview Mode*

   * **Trim leading and trailing spaces from text before applying to CHILI Variable** to remove any extra spaces present in the text

   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.

* CHILI **Environment Name** – name of the CHILI environment

* **User login/ User Password** – user login and password (defined within the CHILI environment)

On **Save**, the configuration is validated and stored in the WebCenter.

7.1.1. Chili Preview

You can preview the CHILI documents and edit its 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.

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.

7.2. 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).

7.3. 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.

7.4. 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

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.

7.5. 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.

7.6. 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 CHILI 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.

8. Project Management for Administrators

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.

8.1. 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.

8.2. 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*.

8.2.1. 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**.

8.2.2. 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.

8.2.3. 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.

8.2.4. 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.

8.2.5. 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 324.

8.3. 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 99).
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* and *Copy / Create Multiple Documents*), not the Java applet upload or when uploading documents from other applications like Automation Engine and ArtiosCAD.

8.3.1. 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.

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** > **ConfigureDocument 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!

8.4. 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.

8.5. 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 99.

- **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`. • **Standard** • **Simple**

	• **Translated**
Details	Additional information such as:
	• **Allowed Extensions**
	• **Document Template Selector**
	Here you can select the already specified document templates. Read also: *Document Templates* on page 99
Operation	The operation depends upon the **Source** button. For example, if you have chosen **Project+Folder**, the operations would be Copy, Move or Link the document
Sections	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.
	• the **Project Creation Documents**
	• the **Project Creation Bill of Materials**
	• **Bill of Materials**
	• **Upload (Copy or Create Multiple Documents)**
	Note: You can also drag and drop multiple files onto an Upload button.
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 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 99.

• **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 366

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.

8.6. 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 specifc 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.

8.7. 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	☐	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.

8.8. 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.

8.9. 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
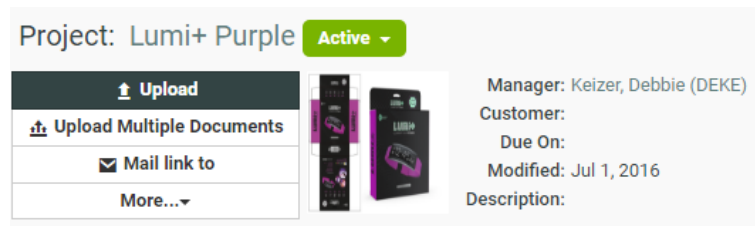
The Project Manager can perform following:

- 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.

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.

8.9.1. 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.

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*.

8.9.2. 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

	☒ Clear this Form	
#	**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 ▼

Save   Cancel
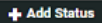
3. Click the **Save** button to make changes. The Project Status page appears with the new status.

> **Note:** The new status will get a default color and no icon added to it. This can be changed in Project Status page.

8.9.3. 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

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.
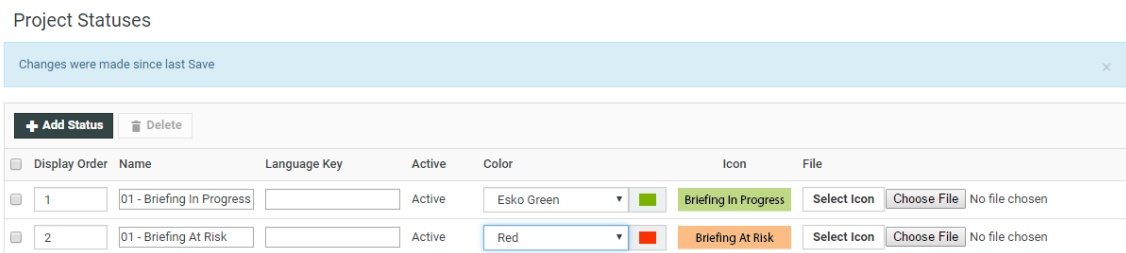
You can change an icon for the exisiting Project Status in the Project Status page. The Project Status icon can selected from the Icon Gallery or you can also upload an icon. WebCenter allows JPG, JPEG, GIF, BMP and PNG files types as icons.

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.
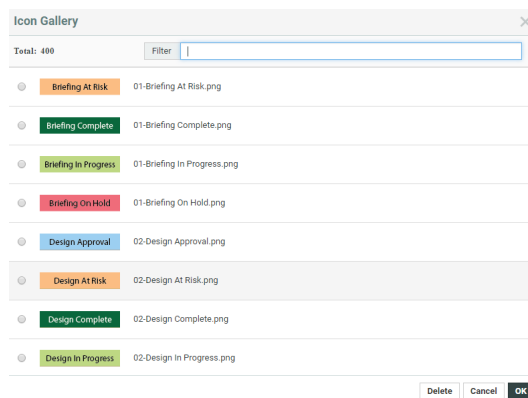
Click the **Browse** button to upload an icon of your choice. The icons can be re-used for other statuses.

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.

8.9.4. 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.

8.9.5. 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.

8.9.6. 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.

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.

8.9.7. 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.

8.9.8. 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.

8.9.9. 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.

8.10. 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*.

8.10.1. 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.

8.10.2. 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**.

8.11. 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.
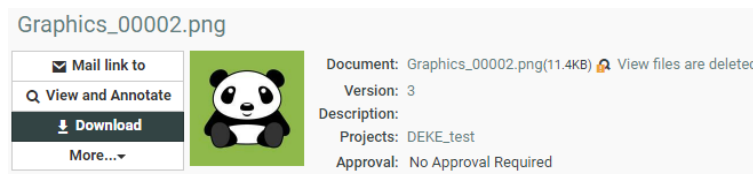
8.11.1. Regenerate View Files

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.

8.12. 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**.

- Specify the **Role** and the **Landing Page**. Choose from the following pages.

Options	Description
Documents	Specify the folder in the **Details** section.
Attributes	Specify the **Attribute Category View** in the **Details** section. **Note:** If you leave this section empty, the user will see the **Default View**.
Saved Search	Specify the name of the **Saved Search** in **Details**. **Note:** The Role-user will be directed to the Saved Search which is plugged into the User's *Project Details* menu.
Approval Page	Details section is read-only.
Tasks	Details section is read-only.
Bill of Materials	Details section is read-only.
Dashboard	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.

8.13. 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`.

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.

9. Advanced Search Setups in WebCenter

9.1. 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 141.

- 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)**.

   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*.

9.2. 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.
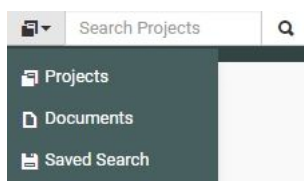
- To edit a saved search, click ✎**Edit Search**.

- To **Make Search Personal**, click 👤

- To **Make Search Global**, click 👥

  Smart Names ⁿ 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.

9.2.1. 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.

Here:

Column	Description
Visibility	Determines whether the criterion 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.
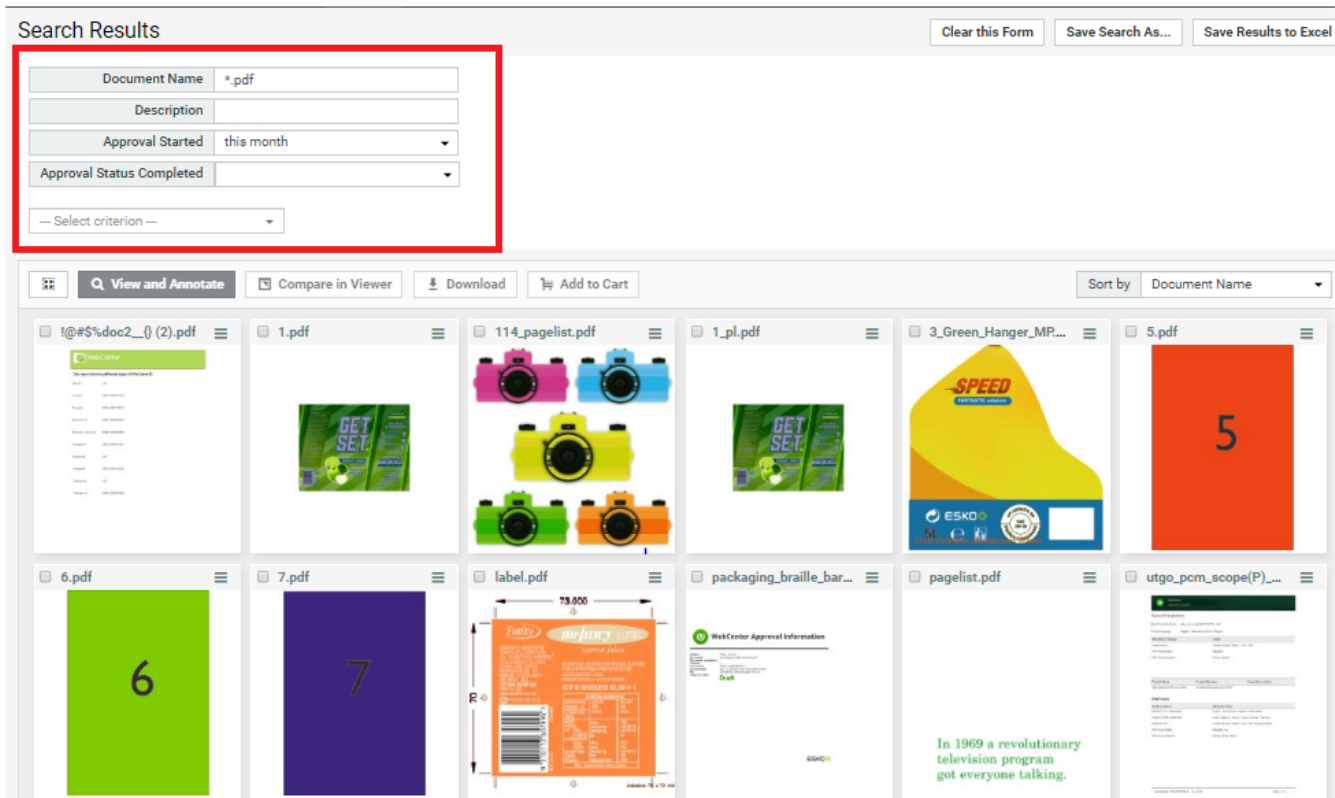
When your users use this search (for example as an asset browser), they can use the design panel to further refine the criteria. You can now

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.
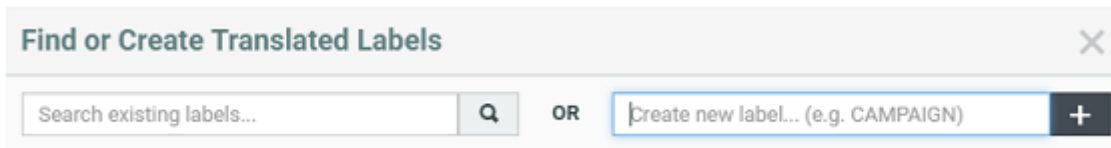
You could find translations for search labels or create a new label in the language you want it translated.

9.2.2. 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 133
- 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 grid layout.
- Setup *Show Drilldown using a Saved Search*.
- You can enable or disable **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:

• Remove the links to Hide Thumbnail, Show as Grid and also Save 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*

• 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 *Show Drilldown using a Saved Search*.

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

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*.

> **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**
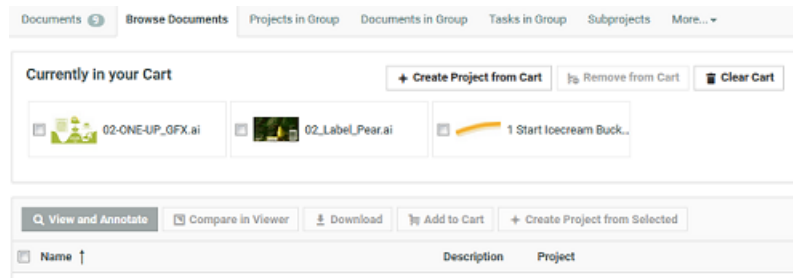
- **Cart** will not appear in Searches used as **Document Source**.

Tasks and Approvals Search Result Layout options

Navigate to **Search** > **Tasks and Approvals** > **Show Result Layout Options**.

You can also configure *Individual Result Actions* .
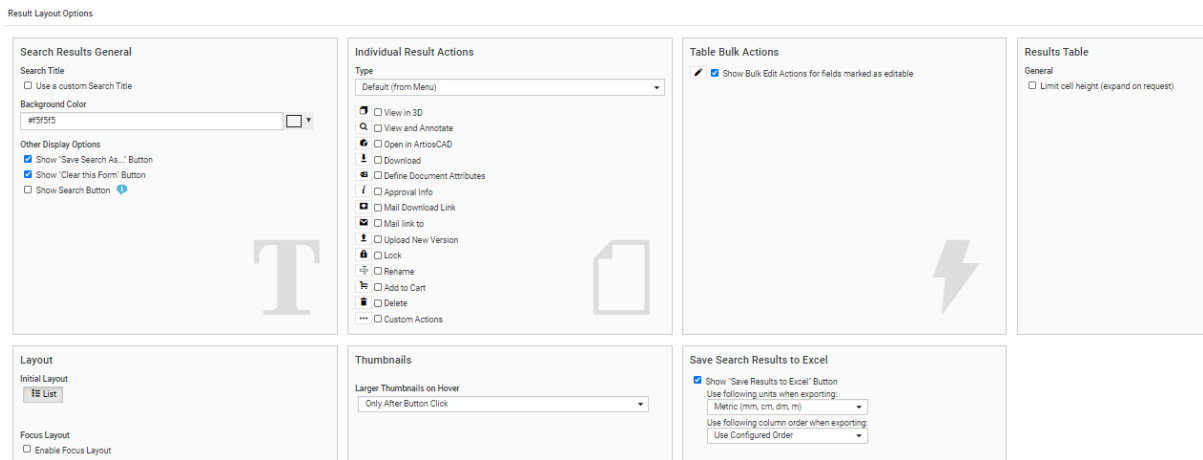
Custom Actions in Search

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 129 .

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.
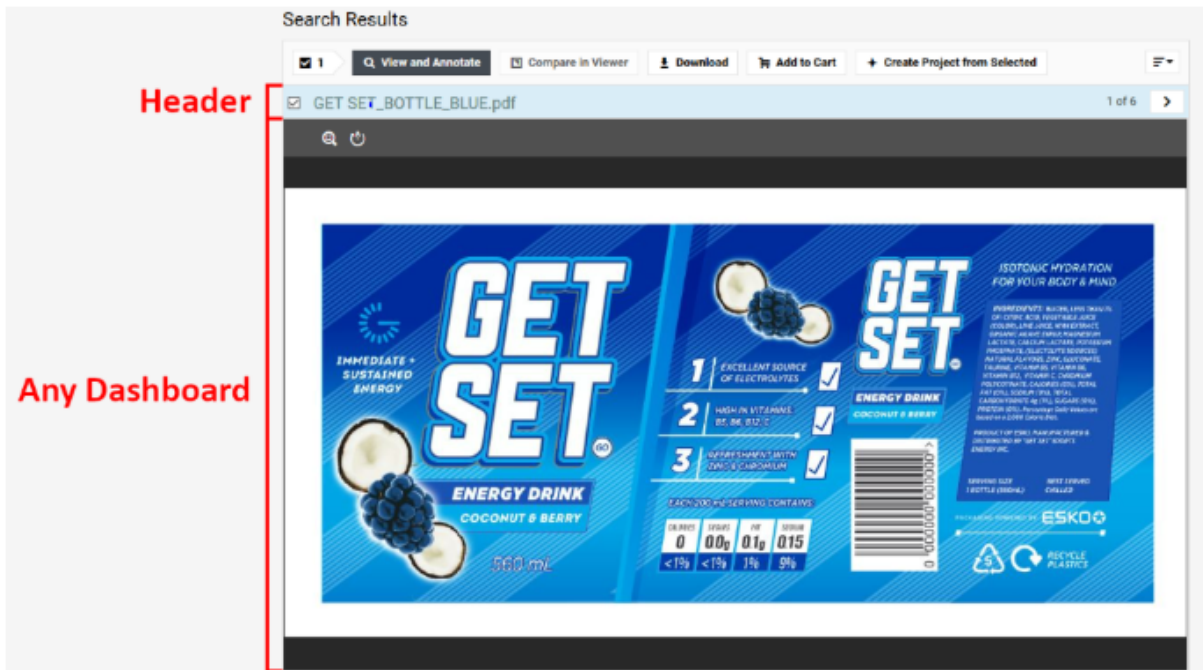
Focus layout utilities the full screen for a single search result, allowing you to view the individual search result items without opening a Document details or the Viewer window.

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.

9.2.3. 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.

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**.

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.

9.2.4. 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.

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.

9.2.5. 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.

Use following column order when exporting:

Use Configured Order	▼
Use Configured Order	
Use System Order	
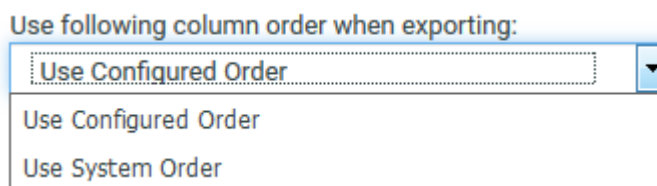
When you choose this option, the order of the columns in the excel file saved is the same, as the order of the columns in the **Search Results** page. This configuration is the default for all the new searches.

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.

9.2.6. 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.

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)**.

In case of grid layout, this information will be displayed in each cell either below the thumbnail or to the right of the thumbnail.

In case of card layout, the information will be displayed on the back of the card, which can be viewed on clicking the card.

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.

9.2.7. 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.

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.

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.

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.
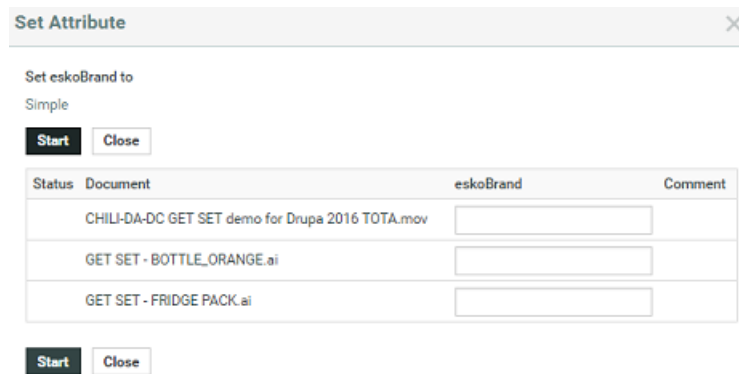
Note: Here, failure happens per item. So when selecting 20 items and the first fails, the rest is still attempted.

9.2.8. 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.
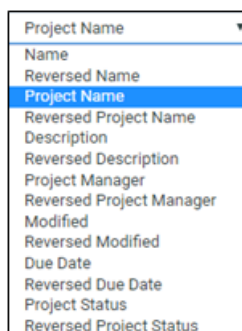
For example, sorting by **Name** / **Reversed Name** will make the name field in the ascending or descending order.

> **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.

9.2.9. 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 ℹ️

Fill in one or more fields. Prefer less fields? Try Keyword Search.

			View	Column Order	Sort	Order
☐ Use Advanced Search Characters ℹ️		**Search Results Options**				
☐ Search Panel Design ☐ Enable SmartNames ℹ️						
Name			☑	1	☑	1 ▲
Task Description			☐			
Type	All Approvals ✕ *Assign all roles to Project Manager Soft Points v3.1 ✕	⊗ ⌄	☐		☐	
Task Type Description			☐		☐	
Status	All Not Started ✕	⊗ ⌄	☑	2	☐	
Task Created		⌄	☐ ⚙		☐	
Started		⌄	☑ ⚙	3	☐	
Modified		⌄	☐ ⚙		☐	
Due		⌄	☑ ⚙	4	☐	
Completed		⌄	☐ ⚙		☐	
Task Estimated		⌄	☐ ⚙		☐	
Task Created by			☑	7	☐	
Completed by			☐		☐	
Duration	= ⌄ +/- days		☐ ⚙		☐	
Time Left	= ⌄ +/- days		☐ ⚙		☐	
Assigned to	👤 👥 🧍		☑	5	☐	
Assignee's Location			☐		☐	
Approval Master	👤 👥 🧍		☐		☐	
Keywords						
Specifications...						
Document(s)			☐		☐	
Parents (Document Reference) of	Matches ⌄					
Stage Name			☐		☐	
Stage Approval Status		⌄	☐		☐	
Final Approval Status		⌄	☐		☐	
Comment/Condition			☐		☐	
Reason(s) for Rejection	Default ⌄		☐		☐	
Project Name			☑	6	☐	

Search

🗙 Clear this Form
💾 Save Search As...
▦ Search Results Dashboard
⚙ Show Result Layout Options
▦ Search Results Formatting

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 it 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.

9.3. Projects Calendar View

9.3.1. 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
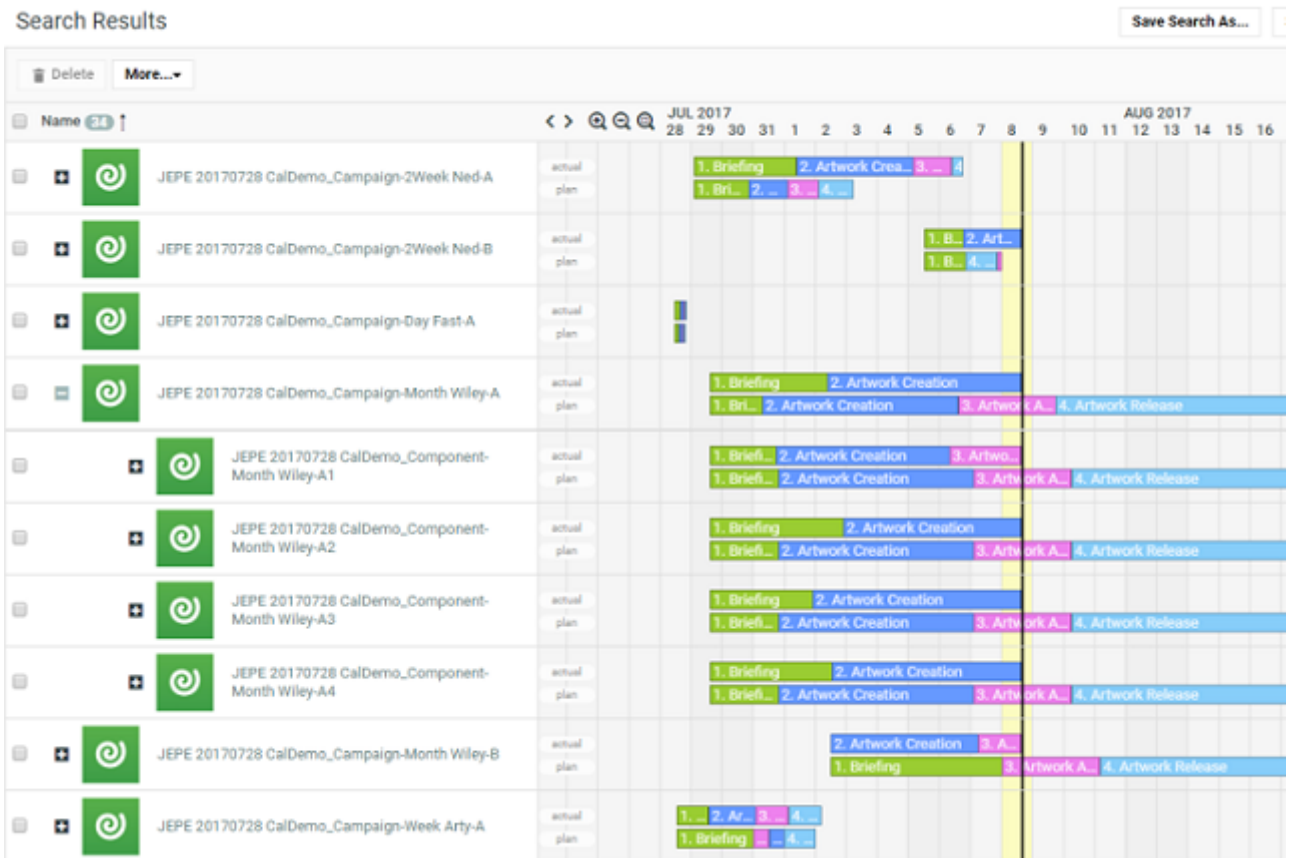
To view the project feedback, project status history option must be enabled in **Admin** > **Preferences** > **Notifications** > **Include in Project History**. Enable **Project Status change**. Click **Save**.

> **Note:**
>
> 1. Calender 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.

9.3.2. 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 143.

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.
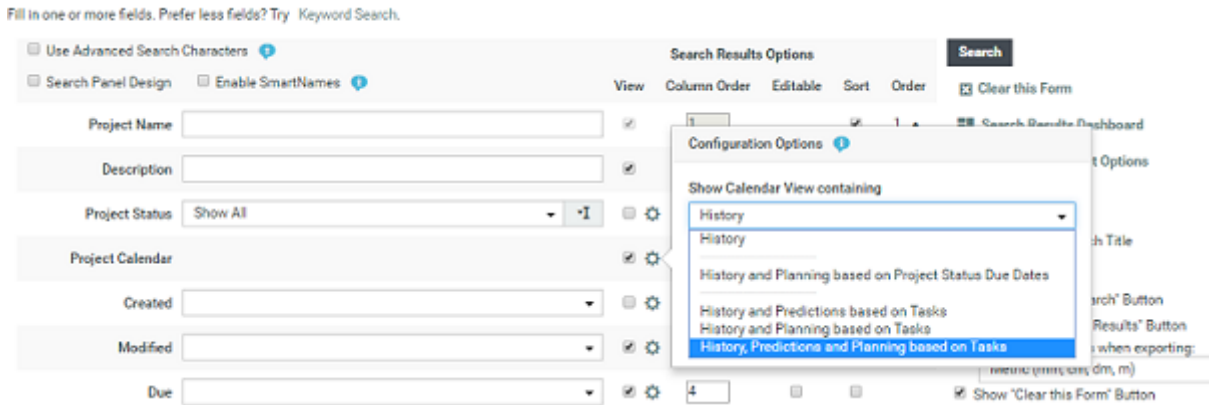
Set up a Search with a Project Calendar

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.
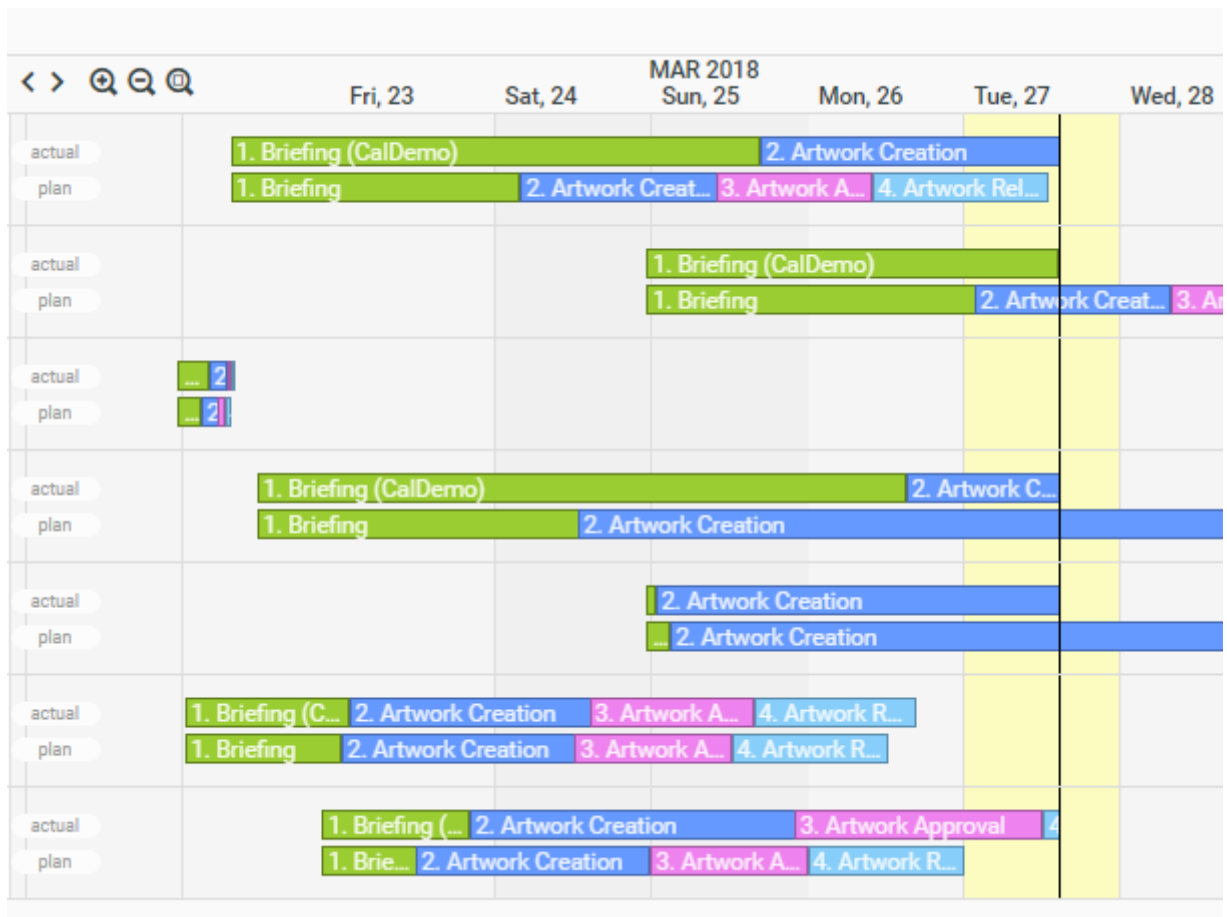
The timeline can contain 2 bars:

• **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.

9.3.3. 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).
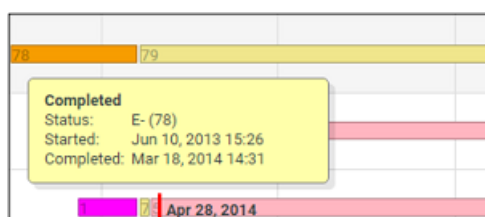
9.3.4. Using the Calendar View with Predictions

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.

9.3.5. 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.

9.3.6. 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.

9.4. 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.

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.
Project Status Completed	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.
Project Status Duration	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.
Project Status Time left	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 **Project Status Due**. When the current time is before the **Project Status Due**, the project is not overdue yet. When the current date is after the **Project Status Due**, 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

9.5. 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 151.

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 156

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 *Lists* on page 295

9.5.1. 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 *Asset Browser* on page 149
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: • certain document types

Concept	Definition
	• range of projects based on project characteristics or naming conventions • both documents and project range.
Saved Search	Highly configurable **Saved Searches** from WebCenter 12 onwards. Read more in the following sections from the WebCenter User Guide. *Advanced Searching* on page 120
Tree browser	This **tree** is built based on your **Cascading Attributes** 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 412

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.

9.5.2. 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 120

   To Save a Search

   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 295. 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.

   > **:** 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.
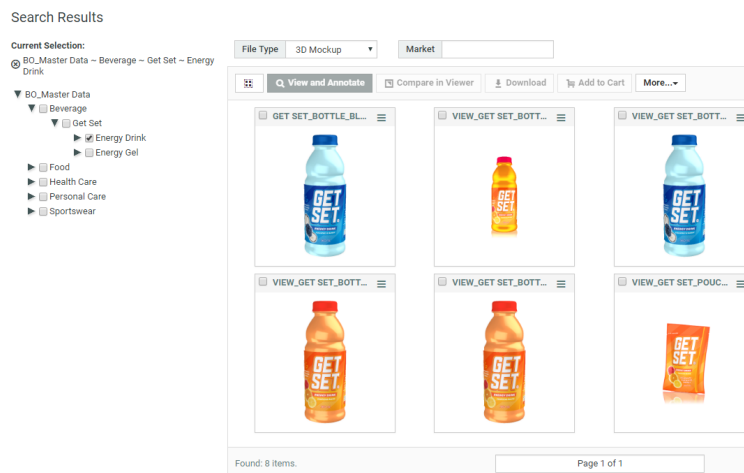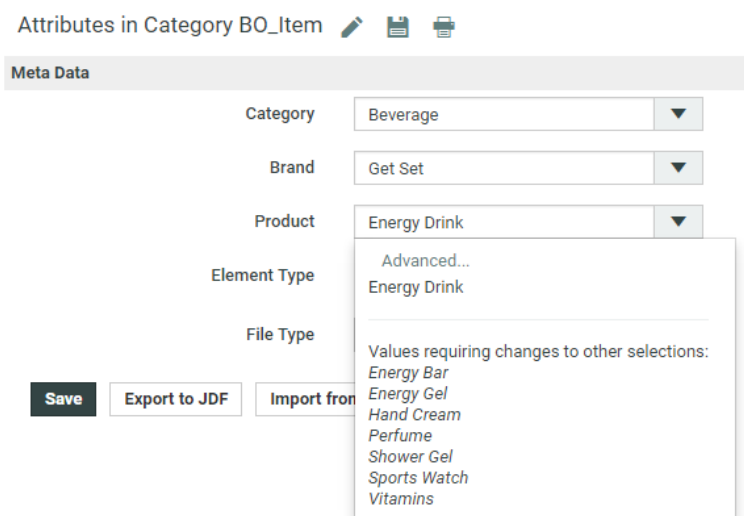
You can choose from any of these two options or both views together. Read below some remarks about these options.

- 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.

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.

Depth	If you leave it empty, all the columns from lists.xml will be available.
	If you need four columns out of five columns from your lists.xml, enter 4

Height	You can set a maximum height for the tree here.
	If you leave it empty, the tree will take as much space as it requires.
	If the tree height is bigger than your entry in this setting, a scroll bar will appear.
	Note: You can enter 1000 pixels or less for the best user experience. However, it can vary depending on the size of the user monitor.

e) Set the browsing style for Tree browsing and Image browsing by modifying the following fields.

Tree panel width	Default Tree panel width is 300 pixels which you can increase or decrease depending on your requirements.
Image Area Style	For a browsing tree at the left hand side, choose **Left panel only (no images)**
	If you want to browse through an image panel at the top, choose **Top panel only (no tree to the left)**
	If you want both tree browsing and image browsing, choose **Left panel and image panel**
Allow Changing Image Area Style via Dropdown	If you want the user to change the browsing style, enable this option.

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
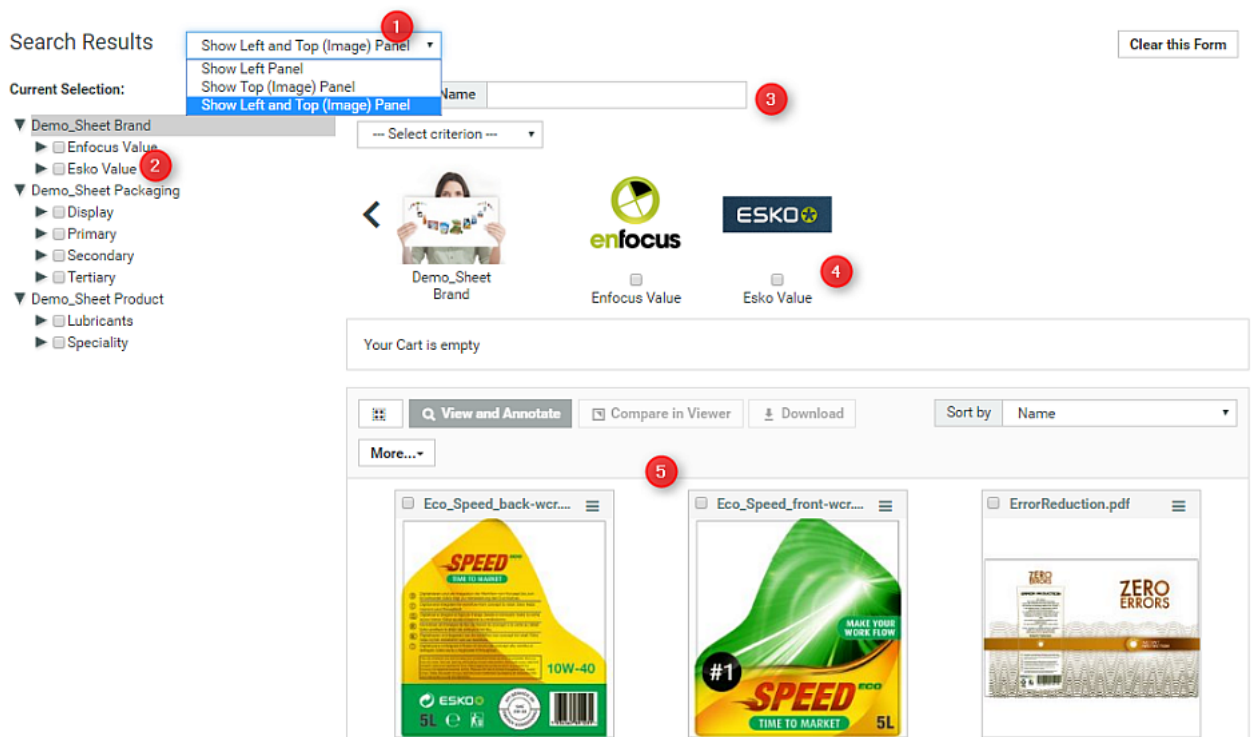
Setting Up a Graphical Asset Browser

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. From WebCenter 12 onwards you can 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. For instance, Internet Explorer does not give good results for .png images if they are differently sized.

---
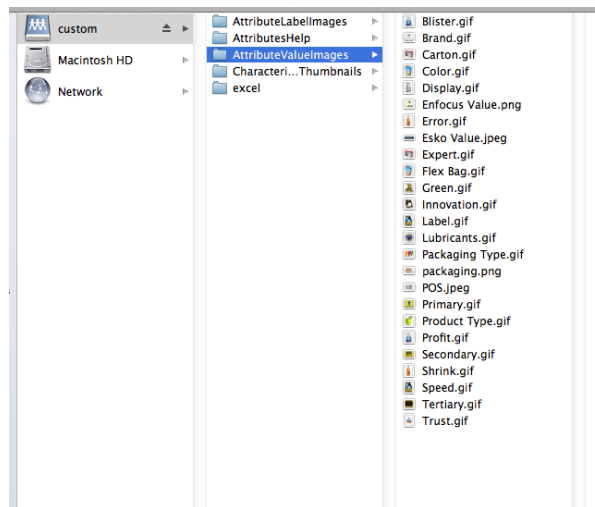
2. Add these images to `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom\AttributeValueImages`.

   If more than one WebCenter instance is used, you have to copy this setup to each instance.
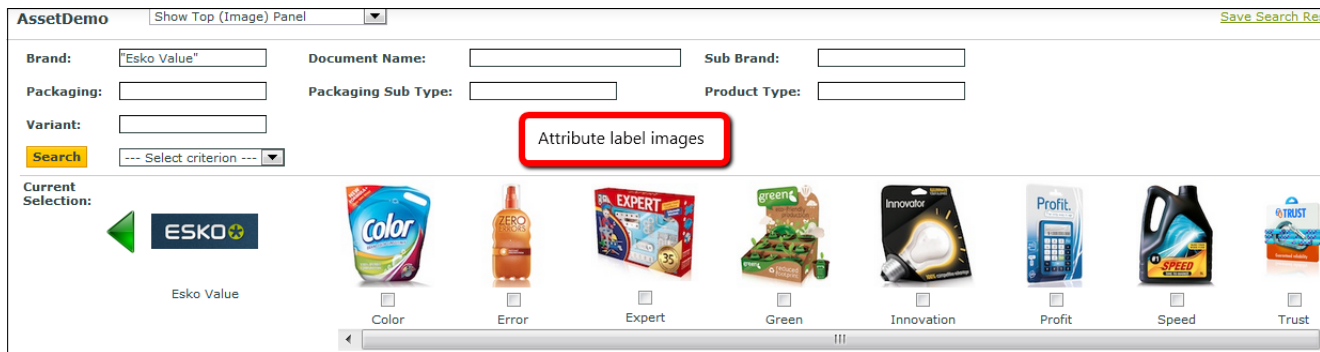
Note:

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: [Default ▾]

Advanced Functions:
- ☐ Allow Changing Attribute Category
- ☐ Custom Actions
- ☐ Show Search Button ⓘ
- ☑ Show Cart ⓘ
- ☑ Show Project Creation Link ⓘ
  - ◉ No Template Specified
  - ○ Fixed Template
    - [Please select or start typing... ▾]
  - ○ Template from Characteristics Path

ⓘ Lists to be shown in left tree panel:

	Type	Name	Depth	Height
⊗ ▲▼	list	Demo_Sheet Brand		px
⊗ ▲▼	list	Demo_Sheet Packaging		px
⊗ ▲▼	list	Demo_Sheet Product		px

Add List

Tree panel width: [300 ▾] px
Image Area Style: [Left panel and image panel ▾] ⓘ
☑ Allow Changing Image Area Style via Dropdown

9.5.3. 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 similiar to assigning a menu item for **Saved Searches**. Read *Add Custom Menu Items* 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*

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 avaiable 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"

.
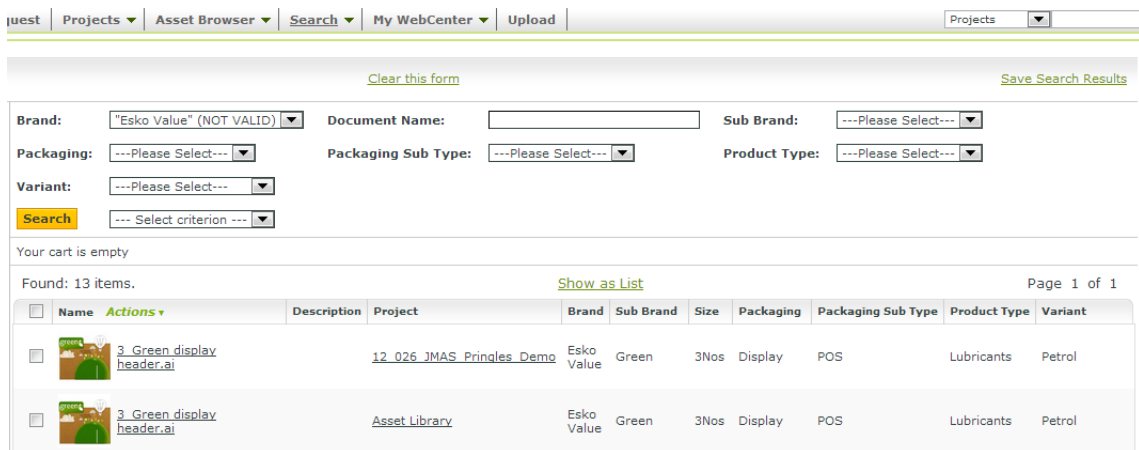
Assigning Submenus to Dedicated Asset Browsers

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 159.

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&amp;actionMenu=Asset Browser</url>
<labeltag>Assets</labeltag>
<menuitem>
<name>Brands</name>
<labeltag>Brands</labeltag>
 <url>dosavedsearch.jsp?searchName=Brands&amp;actionMenu=Asset Browser</url>
</menuitem>
<menuitem>
```

```
<name>Packaging Types</name>
<labeltag>Packaging Types</labeltag>
<url>dosavedsearch.jsp?searchName=Packaging&amp;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 159.

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.

9.5.4. 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.
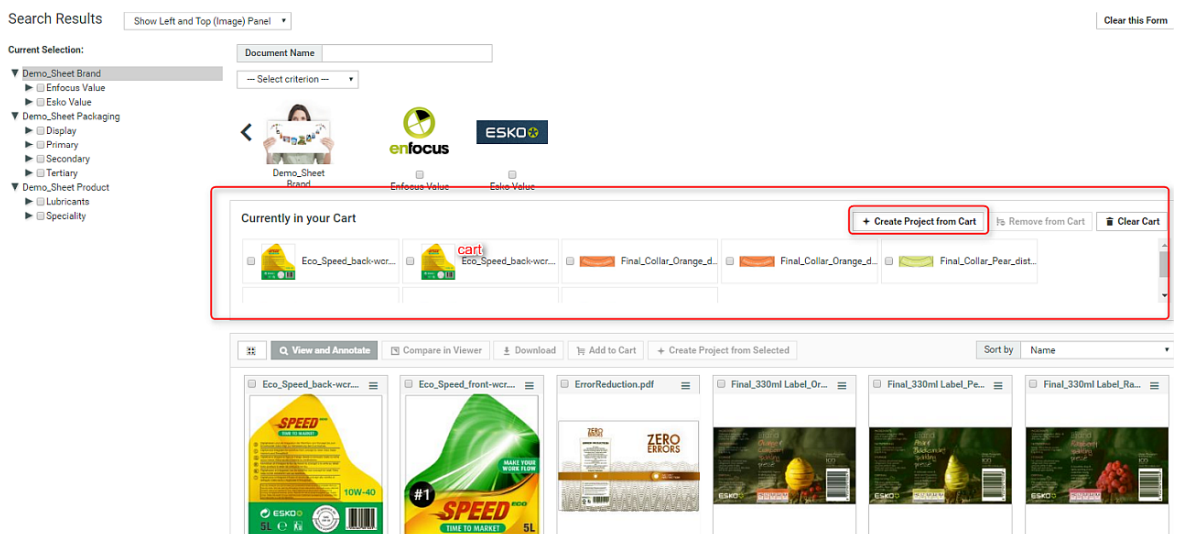
Read more about using the Cart in *Using the Cart from the Asset Browser* .

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**.

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
  [DEKE_test_this is a template   ▾]
  ○ Template from Characteristics Path

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
Fixed Template	Select the template from the dropdown list.
Template from Characteristics Path	You have to specify the path. For example, `projects\modificationTemplates`.
	Note: Follow the correct spelling and letter case.
	Note: Projects can have multiple characteristics. The same template can appear in multiple asset browsers together with other sets of templates.
No Template Specified	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.
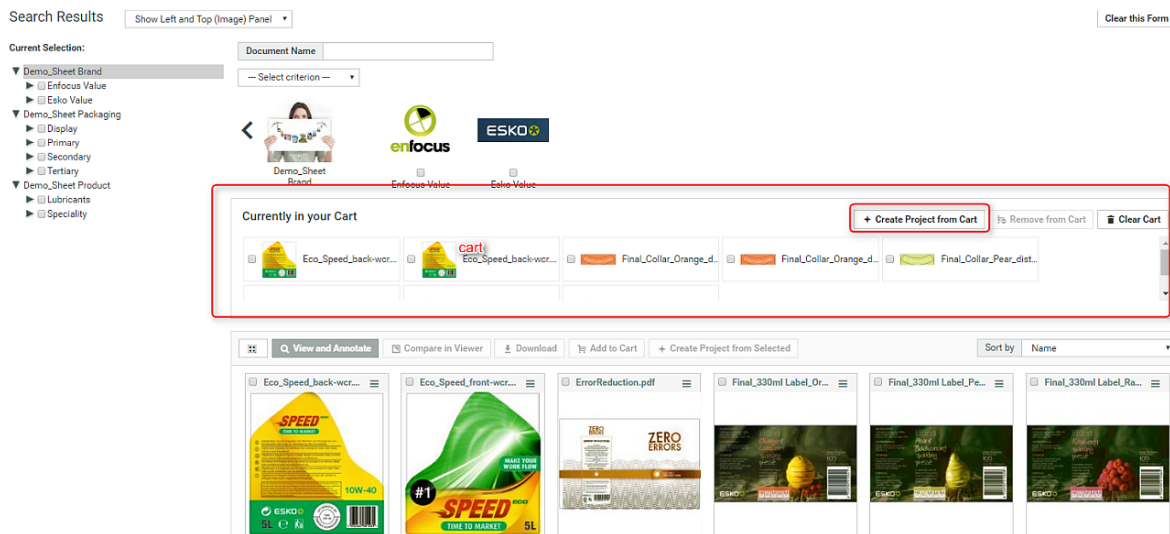
9.5.5. Tips and Tricks

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 might experience slow searching in Asset Browser if you use older versions of Internet Explorer. Consider upgrading or using quicker browsers like Google Chrome and Firefox on 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.

9.5.6. 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**.

9.6. 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**

Filter available Attributes		Filter selected Attributes	
CAD_ORIENTATION		CAD_PRINTAREA	
CAD_ALIGNMENT			
CAD_OFFSET_X			
CAD_OFFSET_Y			
PACKSHOT_ARTWORKBOX			
PACKSHOT_ARTWORKANCHOR			
PACKSHOT_FRONTBACK			
PACKSHOT_USERFRIENDLYNAME			
PACKSHOT_PRINTAREAID			

« »

Clear All   Cancel   **Add**

3. For each of your **Document Reference Attributes**, you can specify the search criteria as:

Options	Description
Empty	to search for projects / documents where the document reference attribute has no document attached to it. Attributes... CAD_REFERENCE is Empty
Matches	to search for a specific document by its name. **Note:** supports wild cards and special characters

Options	Description
Select	to select a specific Document from a specific Project folder.
	This option gives you a **Select Document Reference** pop-up where you can specify:
	• a Project • the Folder • the Document • a single Version or a Revision. If you specify a revision, all the versions of this revision will become selected. The default is **Any version**.
	Note: 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.

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.

9.6.1. 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.
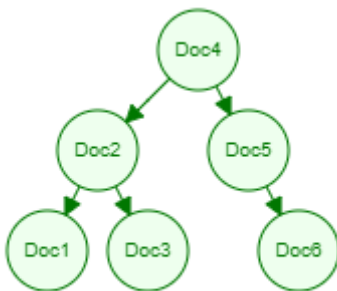
The arrows show the relation between the documents (E.g. Doc4 has a document reference to Doc2)

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.

9.7. 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.

9.7.1. 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.

9.7.2. 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 document or a AI file using this **Live Text in Document**. This field is available for search, based on the setting in the ***Search Crawler configuration*** set by the Admin user. This search does not find results for the text 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.
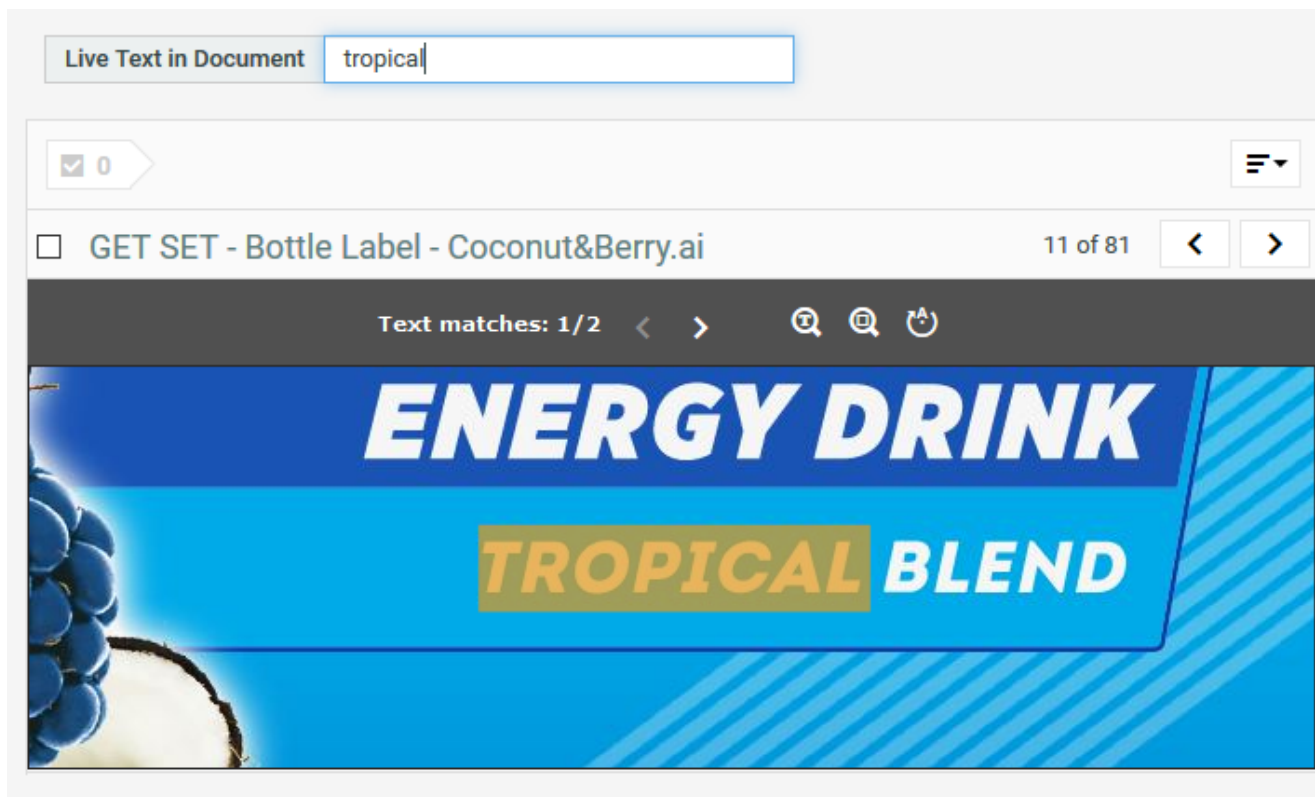
You can navigate through the matches to see where the searched text occurs.
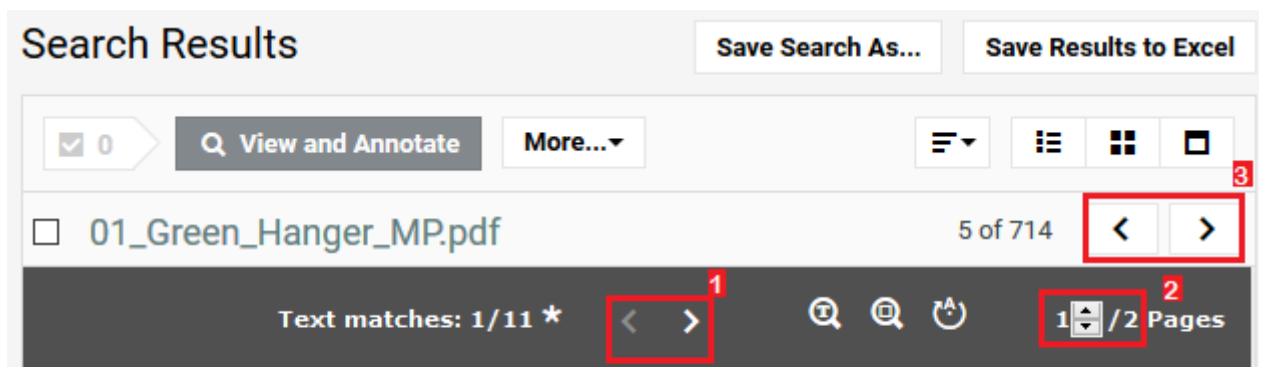
1. Navigate through the text matches within the document
2. Navigate through the pages within the same document
3. Navigate to the next document in the search results

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.

9.7.3. 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.

9.7.4. Document Duration

Duration Metrics for a document are related to the Approval cycle(s) on the document.
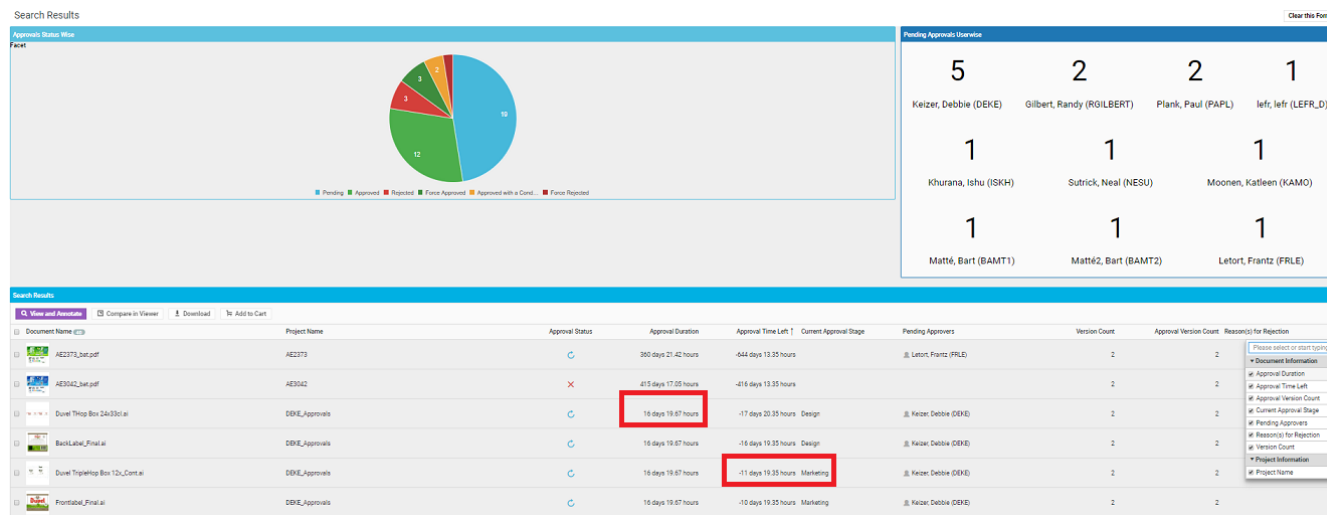
Some of the fields you can use to know the metrics of a document approval are

- **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.

9.7.5. 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**.

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.
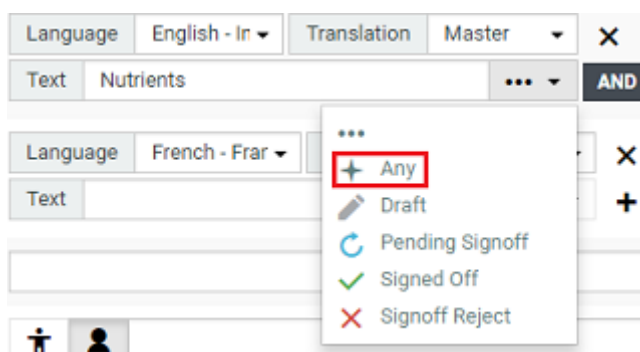
In the example screen shot, the **Search** will find all Master Statements with `Nutrients` in its content **AND** with French- France as Translation.

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.

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*.

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.

9.7.6. 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.
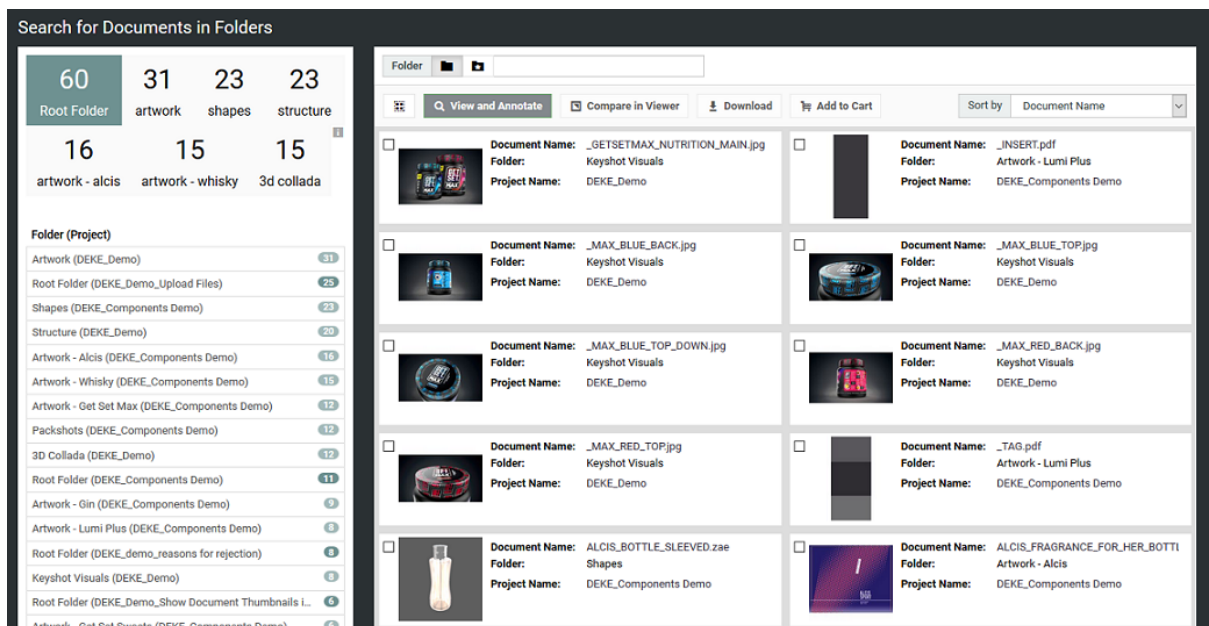
- **Individual Folders**

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.

9.7.7. 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**.
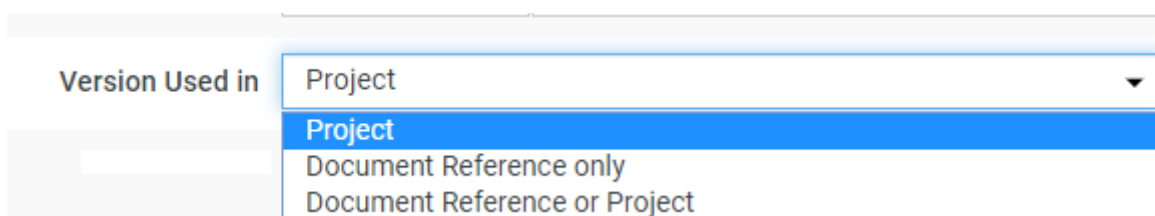
Following are the options that can be chosen when you search for a document based on the version used.

- **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.

9.7.8. 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.

9.8. 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**.

9.9. 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 178

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.

9.10. 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.

9.10.1. 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**.
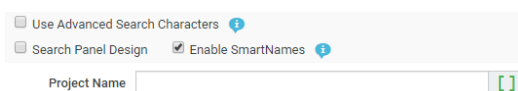
All your search fields will display the SmartNames +**[ ]** icon.

3. Click on the +**[ ]** icon in the field where you want the SmartName configured.

   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.
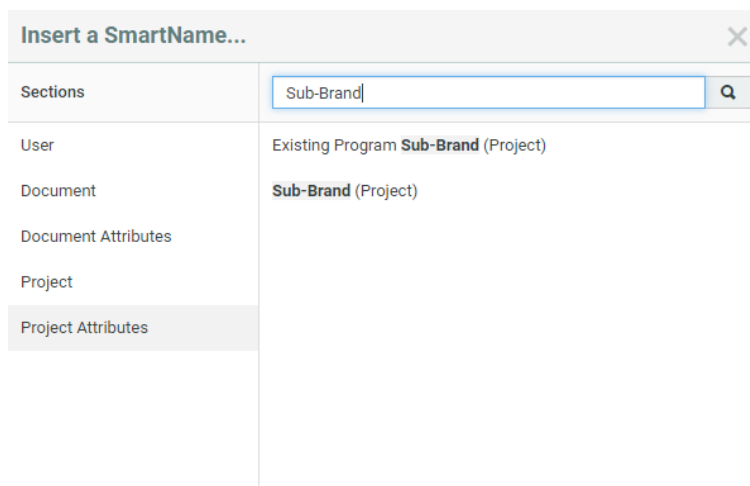
5. Save the search. Your SmartName search will appear in the list of **Saved Searches**.

   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 121.

Global

Project Searches		
☐ My Smart Search**+[ ]**	👁	✏
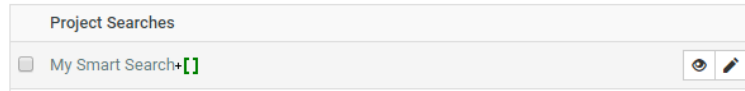
You can plug these searches into the relevant projects where the SmartName will get resolved. Your search results will then list the results based on the context.

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 121.

9.10.2. 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.

9.10.3. 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 102.

• 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.
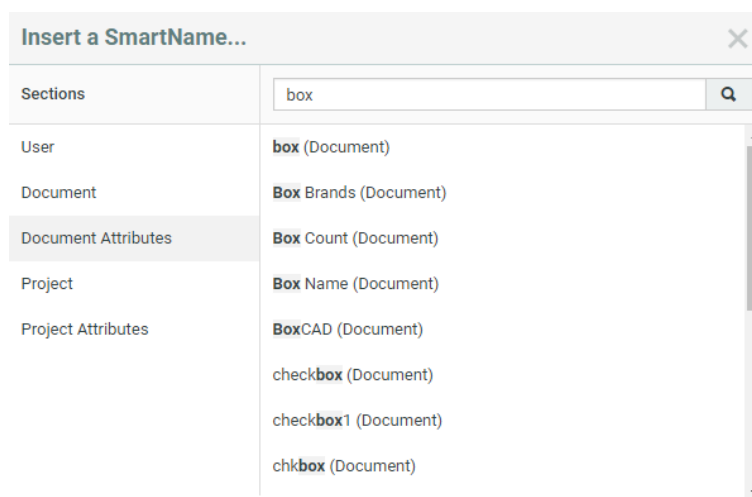
> **Tip:** Configure *Search Layout* options to get an advanced layout.

The selected attribute(s) will appear in the search form.

Attributes...

DSR_Customer equals "[DSR_Customer (Project)]"

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 102 of Projects / Templates.

- Document sources in *Document References* on page 311

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.
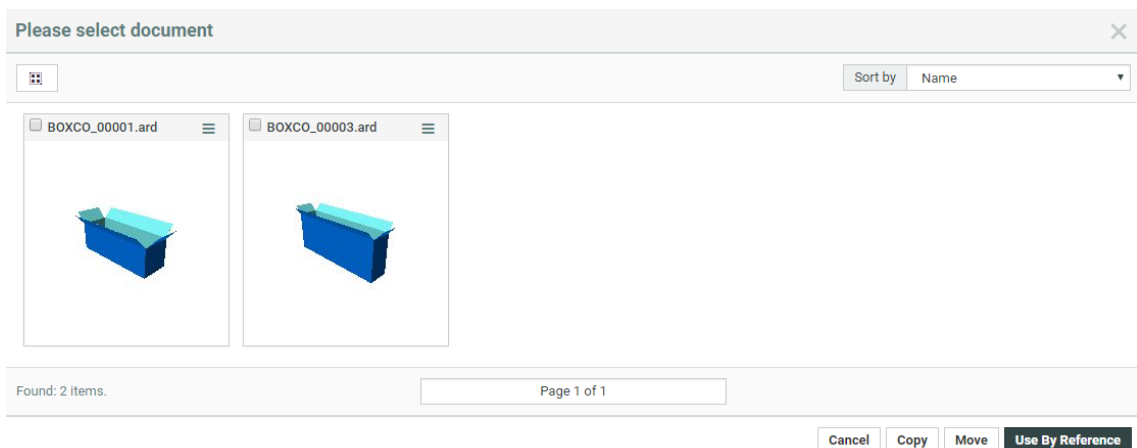
9.11. Drilldown Searches

You can use Project search based **drilldowns** to set up a:

- Drill-down 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.
- Drill-down into Components (documents) or Tasks

Use Case: Program Search
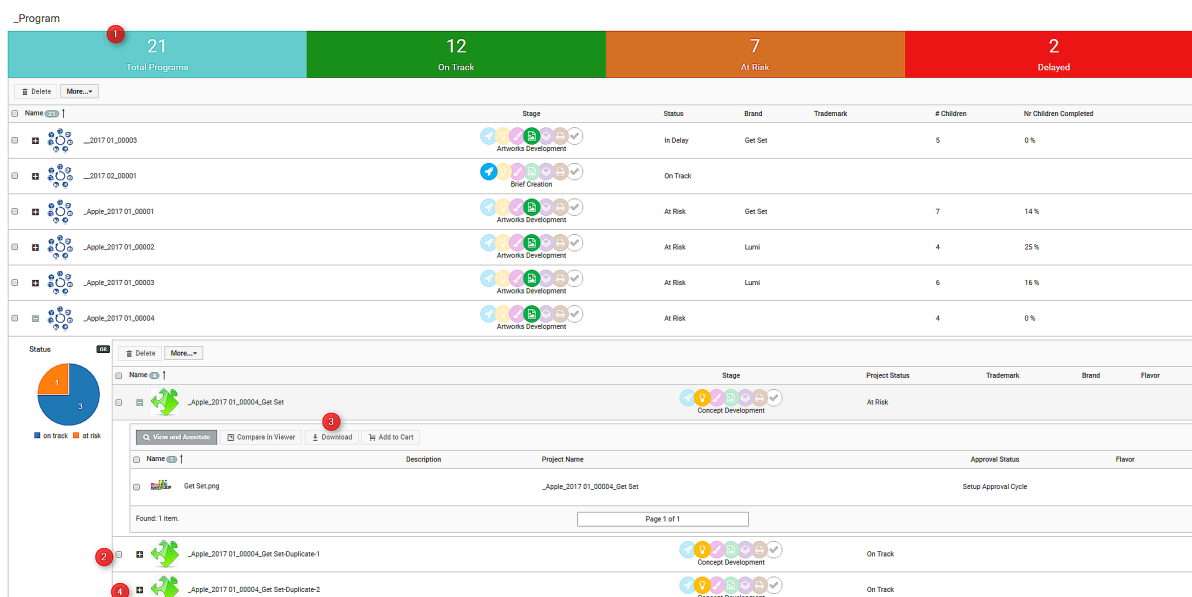
1. The parent Search with Programs. This example shows a *Search Results Dashboard* on page 184 with **counters**.
2. The second level of Drilldown which executes the **Saved Search** specified in the parent search. This search contains a **Dashboard** with a **Facet Graph**.*Configuring a Drill down Search* on page 183
3. The third level of **Saved Search** with a **Document Search**.
4. The expand button to execute the drilldown.

9.11.1. Configuring a Drill down Search

To create a drill down view, you need a **Project Search** or **Document Search** with the **Drill down** option turned on. As a result, the parent search will have an expand button in every row of the results table.

When you click on the expand, it will execute the Saved Search or display the associated child Projects or Documents in the Search Results page.

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) Enable **Show Drilldown using Saved Search** 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 121

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) Enable **Show Drilldown using Saved Search** 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 than the Document Name SmartName, since Document id is unique.

9.12. Search Results Dashboard

WebCenter search dashboard organizes and create 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*

• **Drill-down** overviews of Projects/Programs

• **Asset Browsers**
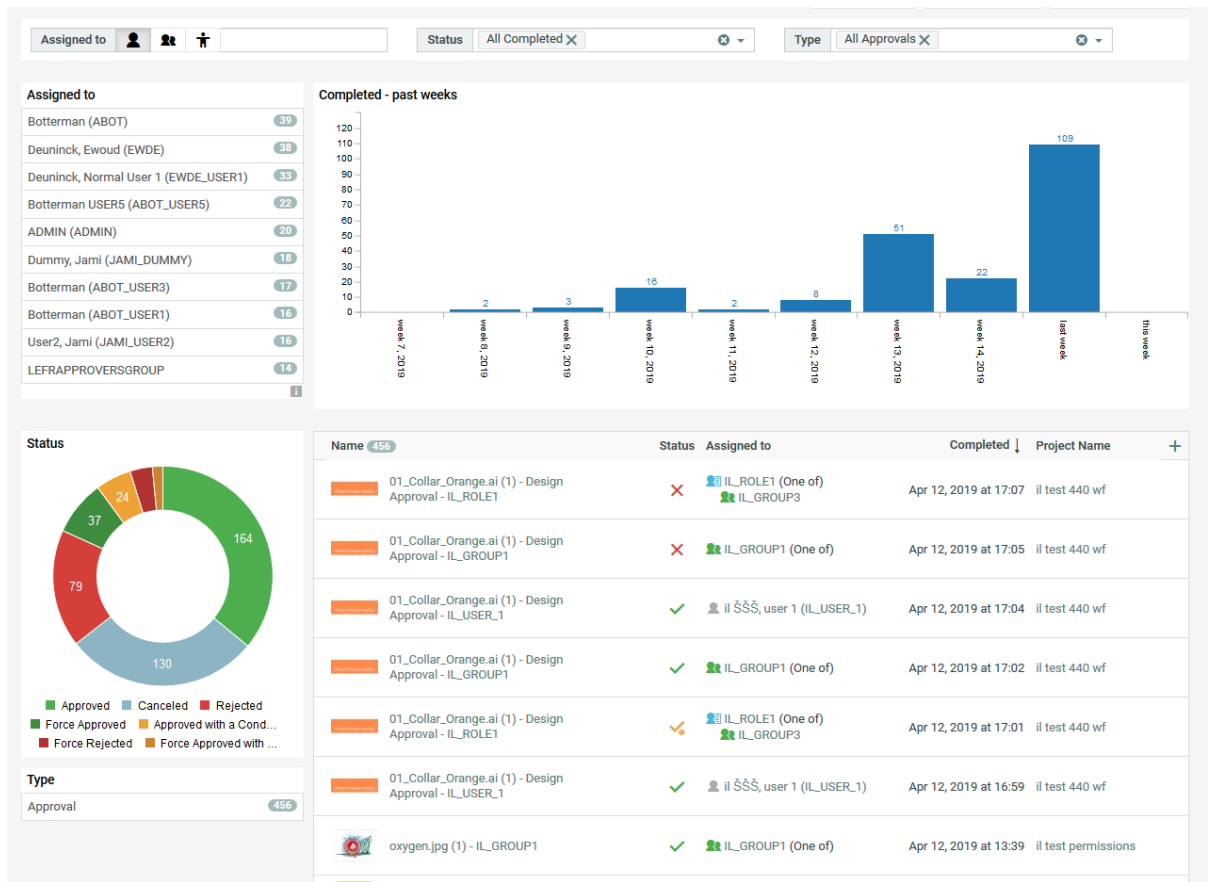
> **Note:** Live preview is not available when the dashboard is configured with SmartNames in it.

9.12.1. 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	• **Rich Text Block**
	• **Selection Panel**
	• **Counter**
Layout	• **Collapsible Section**
	• **Column Layout**
	• **Left Side Panel Layout**
	• **List Layout**
Search Facets	• **Facet Bar Chart**
	• **Facet Counter Bar**
	• **Facet Donuts Chart**
	• **Facet Horizontal Bar Chart**
	• **Facet List**
	• **Facet Pie Chart**
Search General	• **Search Details**
	• **Search Design Panel**
	• **Cart**

• **Asset Browser Side Panel**

• **Asset Browser Image Panel**

9.12.2. 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 189 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 428.

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.

9.12.3. Facet Settings

Facet blocks (see *Types of Dashboard Blocks* on page 185) 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 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.

9.12.4. 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).

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 189.
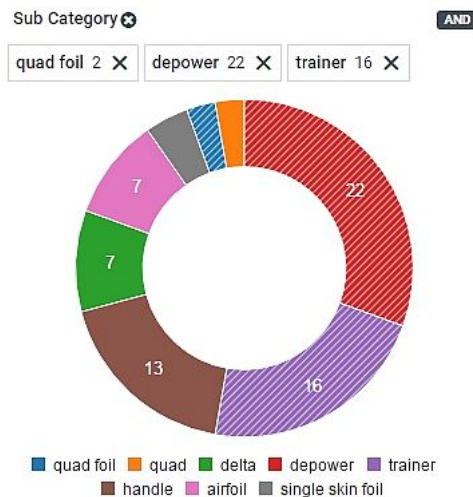
Facet Counter Bar

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.

9.12.5. 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.

9.13. Search Results Formatting

Search Result Formatting framework makes it simple to present result data in an attractive and clearly communicating form.
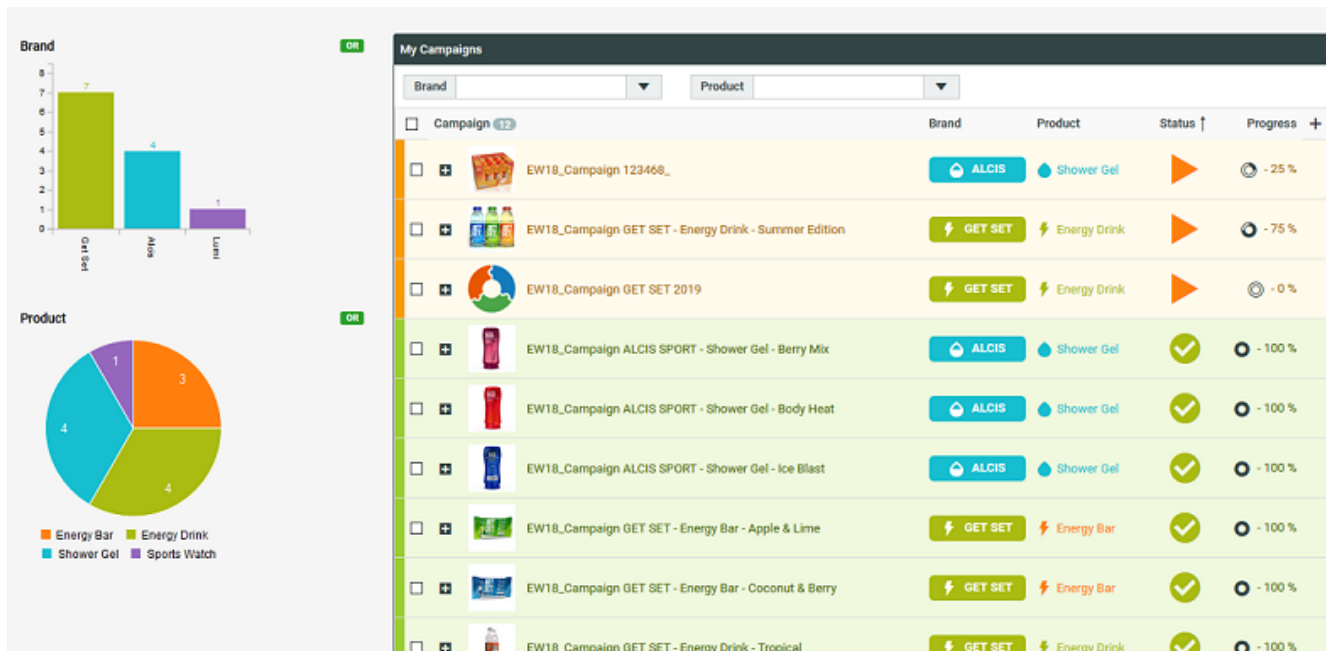
Admin users can setup **Search Results Formatting** by navigating from the Search setup page for Projects or Documents or Task and Approval Searches.

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**.

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.

9.13.1. 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.

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 in 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.

9.13.2. Import Styles

You can select the **Import Styles** to reuse any existing style in the saved searches.

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.

9.14. Setting Up Project Operations in Saved Searches

9.14.1. 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.

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 [icon] button next to the selected items in the **View** List.

4. Now **Save** the **Search** or click **Search**.
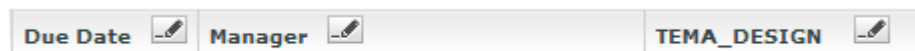
Note: For each **Editable** item, a corresponding option will be created in the table actions bar.

9.14.2. 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**.

9.14.3. 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**.

9.14.4. 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)**.

10. 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.
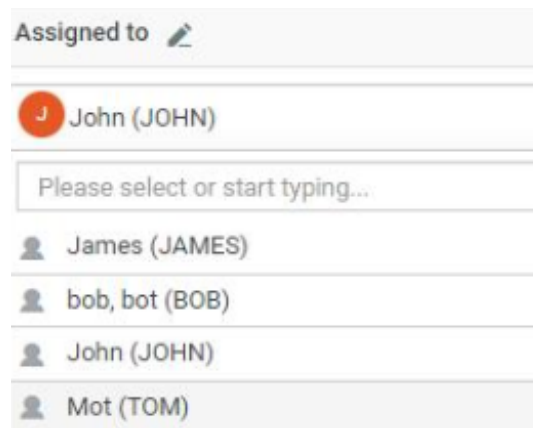
Conditional Formatting for Editable fields

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.
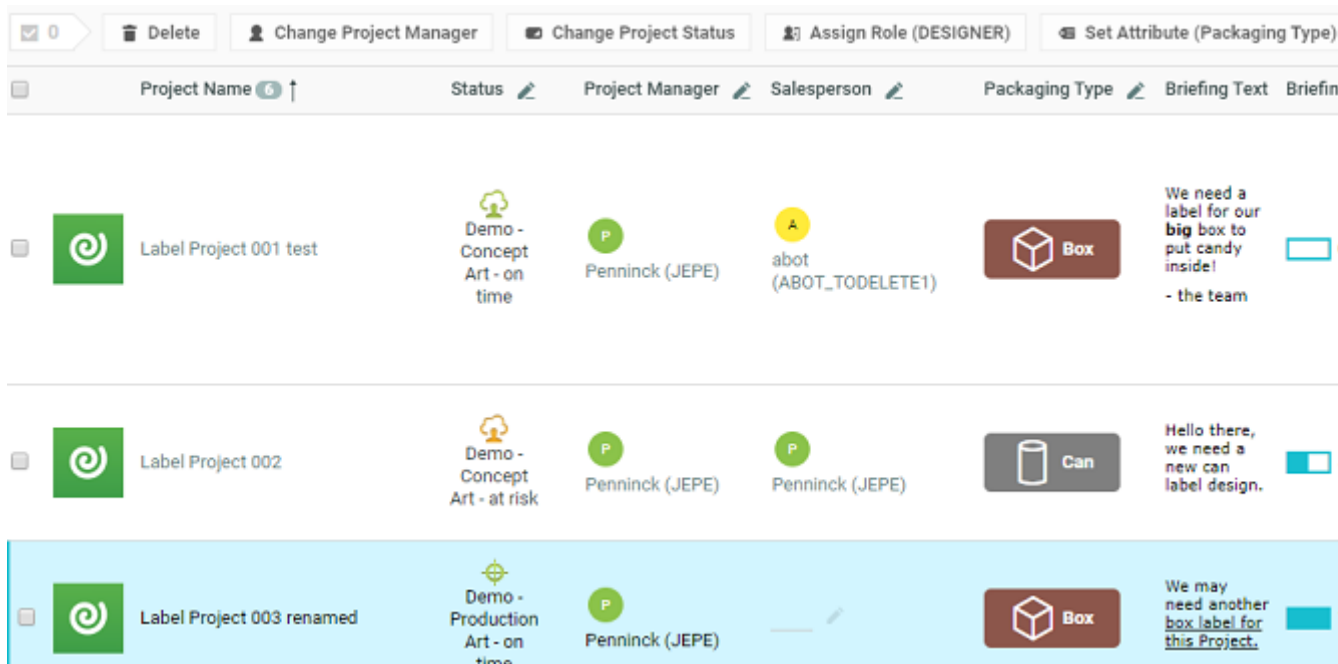
Live Preview

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

Rich Text fields are also editable inline. Select the text in a rich text field to open the rich text panel.
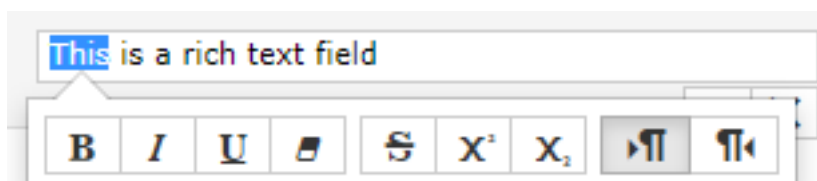
10.1. Configuring Editable Fields

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.

Configuration of Editable Fields in Dashoard

When you configure any type of Dashboard (Project, Task or Document), in the Configuration panel, select the **Editable** option.

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.

10.2. 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.

10.3. 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.

11. Managing Companies

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*

11.1. 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 38.

   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**.

11.2. 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 38 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 209.

11.3. 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.

11.4. 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.

11.5. 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*.

11.6. 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 208 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.

11.7. 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.

11.8. 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 59 and **Save**.

11.9. 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.

12. Managing Users

12.1. Licensing and Users

WebCenter supports two types of licensing models. You can have counted licenses in the *Named User License Model* on page 212 or *Concurrent License Model* on page 210 where you can have licenses that are taken up during a log-in sessions.

12.1.1. 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 are 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 x 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.

Mutiple 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
		Total: 15	
Concurrent Licenses	500	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 utlilize 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.

12.1.2. 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 license 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.

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 (Hide Details)	Remaining
Admin/Project Manager Users	1001	Total: 329	672
Project Creator/Regular Users	2500	Total: 358 Assigned to Regular Users: 324/324 Assigned to Project Creators: 34/34	2142
Integration Sessions	503	Total: 146 Guaranteed Sessions: 138/138 Workflow Tunnels: 8/8	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 users licenses are exhausted, then Project Creator Users licenses are used instead of regular users.

• **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

12.2. 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 flexbility 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.

12.3. 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 38.

- 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 210).

- 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 210.

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 210).

7. Does the user need special permissions in WebCenter?

If the user needs...	Select the option...
no special permissions	Normal User
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).

12.4. Editing Users and their Preferences

12.4.1. 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...
User info (including authentication details)	edit the fields on the **Profile** Page. Read also *Edit User Authentication Settings* on page 219.
Menu	choose a different menu in the **User Menu** list.
User Type	select the appropriate role from the options: - **Normal User**

To edit the user's...	You should...
	• **Project Creator** • **Project Manager**
Visibility	Select the visibility for the user from the options: • **Limited Visibility of Companies and Groups** • **Full Visibility**
Privileges	Also specify if: • **User Can create Task Type** • **User Can Create User** • **User Has Guaranteed Access or is an ArtiosCAD Enterprise User**
Company or Location	1. Click the **Company/Location** link at the bottom of the **Profile** page. 2. Select a new company and click **Finish**.
Visible Companies or Locations (only applies to Project Managers and Project Creators with Limited Visibility)	1. Click the **Visible Companies** or **Visible Locations** links. 2. Make a selection of visible locations and/or companies and click **Finish**.
Allow Multiple Sessions *The licensing and users overview* **page will explicitly show the number of guaranteed sessions and the number of licenses blocked.**	Enable this option to allow the user to login concurrently multiple times. **Tip:** 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). • Specify the **Maximum Open Sessions** allowed for the user. **Note:** 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. The **admin** users have the same number of multiple sessions as any other user. You can change this by setting a different **Maximum Open Sessions**.

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.

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 385.

Link Authentication:

To allow a User to authenticate via a link, configure *Token Authentication* on page 388 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.

12.4.2. 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.

12.4.3. 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.

12.4.4. 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 19.

12.4.5. 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**.

12.4.6. 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.

12.4.7. 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).

12.5. 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).

12.5.1. Deactivate Users

You can deactivate users either manually or automatically after a specified duration.

- To **deactivate** a user manually:
  a) Go to **Admin** > **Users** > **User** > **Profile** page.
  b) 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.
  c) **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**,
  a) Go to **Admin** > **Users** > **User** > **Profile** page.
  b) Select from the following options and **save**.

Options	Description
Deactivate after X working days	Specify the number of working days from the current date.
	You will see a message with the predicted date of deactivation.
Deactivate at a specified date	Pick a date using the date picker.
	Note: You can only set this up for active users.
No automatic deactivation	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).

12.5.2. 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.

12.6. 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.

12.7. 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 210.

- 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 388 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.

12.8. Managing User Memberships in Projects

12.8.1. 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.

12.8.2. 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**.

12.8.3. 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.

12.9. 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 226.

Read also *Failed Logins* on page 226 and *License Usage* on page 226

12.9.1. 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.

12.9.2. 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.

12.9.3. 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.

12.10. 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 31 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.

12.10.1. 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 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.

13. Managing Groups

13.1. 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**. The, 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.

13.2. 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 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**.

13.3. 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**.

13.4. 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**.

13.5. 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**.

13.6. 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**.

13.7. 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**.

13.8. 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.

13.9. 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**.

13.10. Managing Group Memberships in Projects

13.10.1. View a Group's Project Memberships

1. Click **Admin** > **Groups**.

2. Click the group to edit.

3. Click **Projects**.

13.10.2. 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**.

13.10.3. 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.

13.11. 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.

13.11.1. Group Task Manager

Every department has a Department Manager. In WebCenter Department Manager are referrred 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.

13.11.2. 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.

13.11.3. 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.

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.

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**.

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:

Due Date ↑

Jan 29, 2013
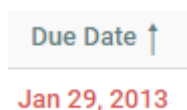
14. Managing Roles

14.1. 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 239

14.2. 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
Selected Project Managers	You should select which Project Mangers are allowed to see the Role
All other	The **New Role** 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.

14.3. 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.

14.4. 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
Selected Project Managers / Creators	You will be prompted to select the individual Project Managers or Project Creators. Click **Change** when you have made your selection.
All Project Managers/ Creators and **Administrators Only**	You will be asked to confirm the selection. Click **OK**.

14.5. 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.

14.6. 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 **Group**s 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.

14.7. 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.

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 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	• Users from his own company (all locations). • Users and Groups present in the same Project (through individual or role assignments). • Groups the user is member of.

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.

14.8. 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.

15. Discussions

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*.

15.1. 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.

15.2. 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*.

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.

15.3. 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.

15.4. 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.

16. 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 380

16.1. 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.

16.2. 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.

16.3. 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 fie 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.

17. 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.

17.1. Restricted Sets

17.1.1. 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.

17.1.2. 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.

17.1.3. 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.

17.1.4. 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*.

17.2. Attributes

17.2.1. Create an Attribute

1. Click **Admin** > **Attributes** > **New Attribute**.
2. Enter information in the fields as appropriate:

In the field...	Fill in the...
Name	name of the attribute (for example, `Billable`).
Label	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 *Find or Create Translated labels* on page 253.
Description	description of the attribute contents (for example, `Indicates whether work on this project should be billed by finance`).
Type	the type of the attribute. You can select from the drop down.

In the field...	Fill in the...

--- Select Attribute Type ---

--- Select Attribute Type ---
Area(sq in.,sq cm)
Area(sq in.,sq mm)
Area(sq ft,sq m)
Date and Time
Distance(in.,mm)
Distance(in.,m)
Document Reference
Float
Integer
Rich Text
Text
Text (Right to left)
Volume(cu in.,cu cm)
Volume(cu in.,cu dm)
Volume(cu ft,cu m)
Weight(lbs,gr)
Weight(lbs,kg)

Document References are attribute-links pointing to different document sources. When you select this option, you will have more options. Read more in *Create a Document Reference Attribute* on page 312.

Floats are numbers containing a decimal point (e.g. `3.1415`) and integers are whole numbers (e.g. `42`).

Date and Time attribute added in the project attribute category allows to link a date/time to the project status.

Text (Right to Left) attribute allows text to be written right to left always and this feature is available in 18.0.1 onwards.

Rich Text attribute type allows you in entering long and/or rich text. You can:

• add set of least 16 different colors.
• set the text bold and italic.
• use bulleted and numbered lists.
• Heading up to four levels and also add tables.

In the **Preview** you will see the Rich Text editor. Click the **Show Rich Text Controls** 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

In the field...	Fill in the...
	direction using the buttons ⁌⁌ (right to left or left to right).
Values	choose either: • **Prompted** if you want to allow the user to enter any value. • **Calculated** if you want to use an ArtiosCAD formula to calculate the attribute value (enter the ArtiosCAD formula in the field). **Note:** You should set **Calculated** attributes to *read-only* 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. • **Restricted Set** to limit the possible values. **Note:** To choose a Restricted Set, it must be created before defining the attribute (see *Create a Restricted Set* on page 249). Make sure that the **Type** of the Restricted Set is the same as the attribute type. **Note:** For **Document Reference** attributes, you will have only **Prompted** as the **value**.

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*".
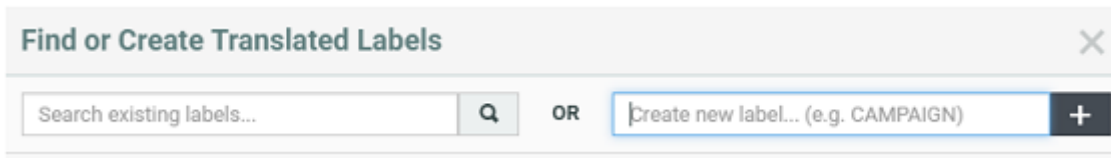
4. Click **Create**.

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

Find or Create Translated Labels

| Search existing labels... | 🔍 | OR | Create new label... (e.g. CAMPAIGN) | + |

You can either search for translations or create a new label in the language you require.

17.2.2. 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.

17.2.3. 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 • overwrite the rule/ style • keep both the rules/ styles. Copied rules/styles gets a number added to its name • Use the existing rules/Styles or • cancel the operation

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 • overwrite the list • keep both the lists • merge values or • cancel the operation
When the copied Form property (Task execution or project creation view) already exists in the destination	Choose to • overwrite the selection • Skip the action **Note:** When a form property is placed in a view where it cannot be placed, it will be ignored

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 380

17.2.4. 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.

17.3. 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 380

17.3.1. 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 256 for details).

17.3.2. 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.

17.3.3. 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.

17.3.4. 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).

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.

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.

> **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 261.

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 269 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

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.

> ⚠️ **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.
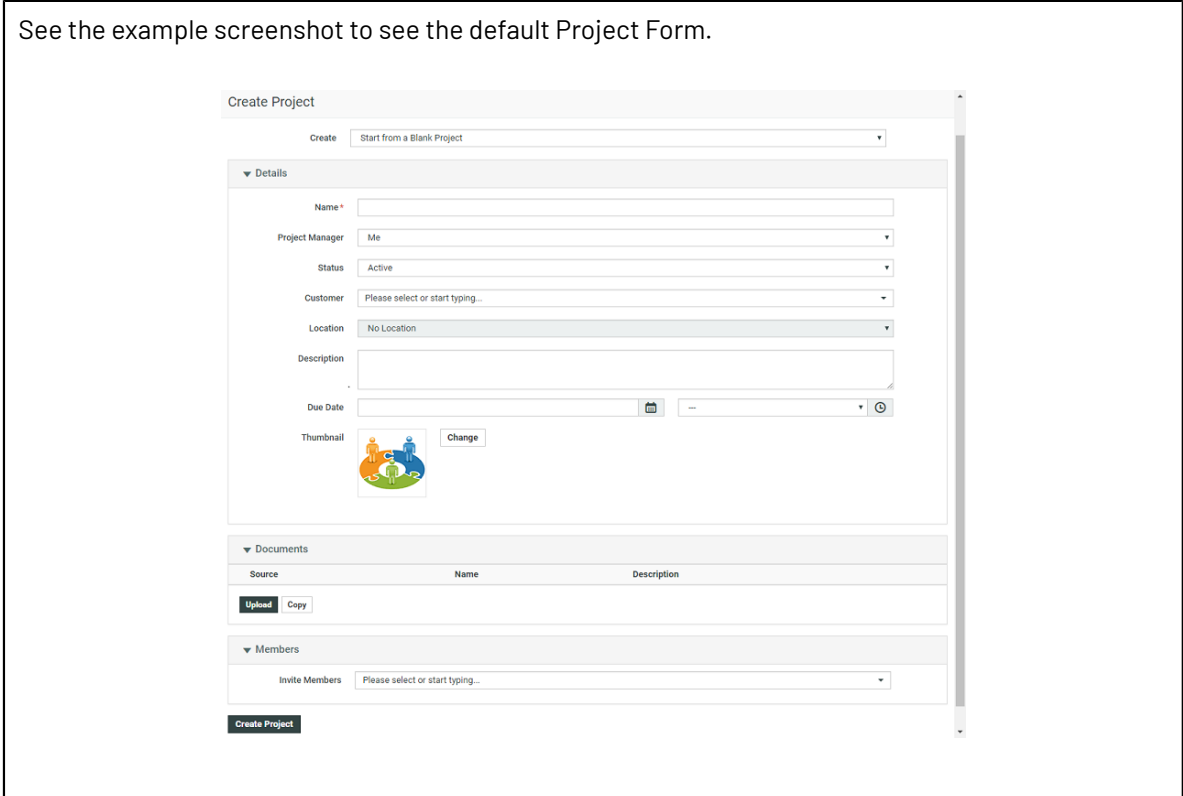
The following **Project Properties** are available in this view and you can customize all of them. The fields from all sections are included in this view but without section titles (Members, Bill of Materials, Documents).

- **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**
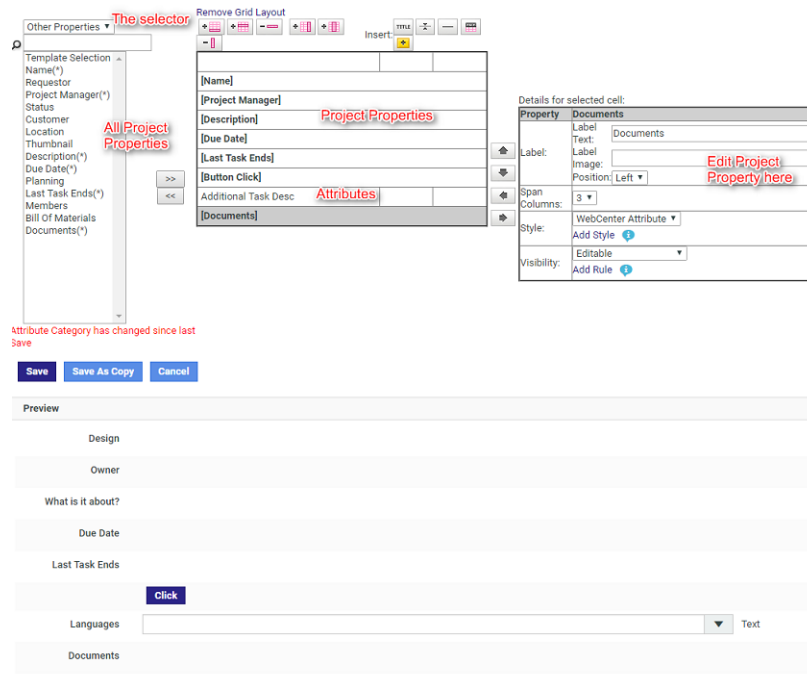
In the attribute selector pane, you will see both the attributes and the project properties. You can use the selector to toggle between **Attributes** and **Project Properties**.

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:

- The **required** fields should be configured as **Visible**. Read more in: *Project Creation Settings* on page 101

- 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.
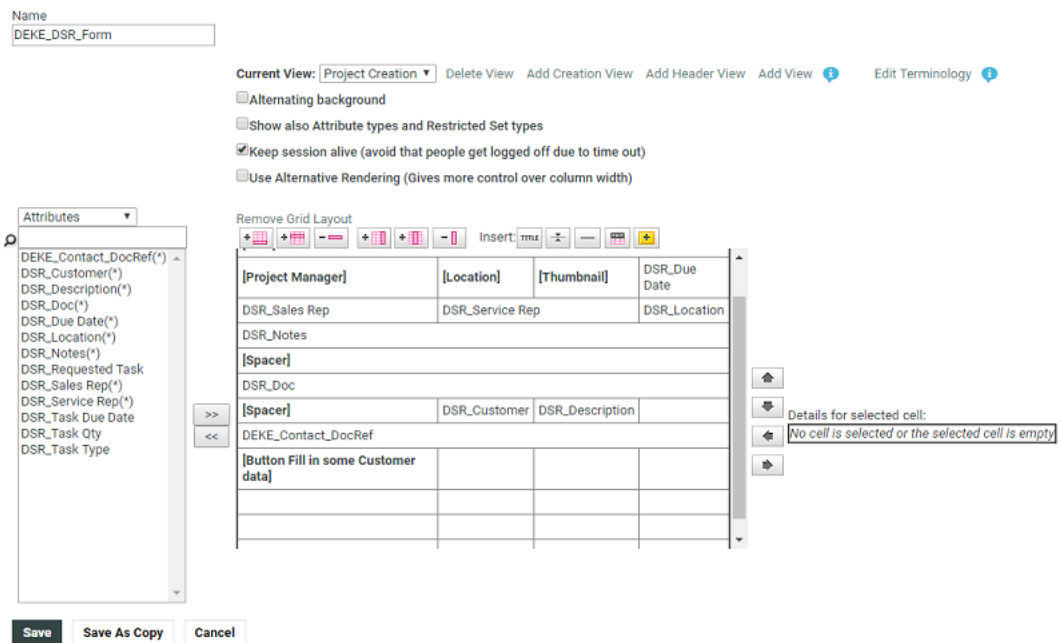
To add a Project Creation Form view:

- 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 264 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.

> **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 269 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:
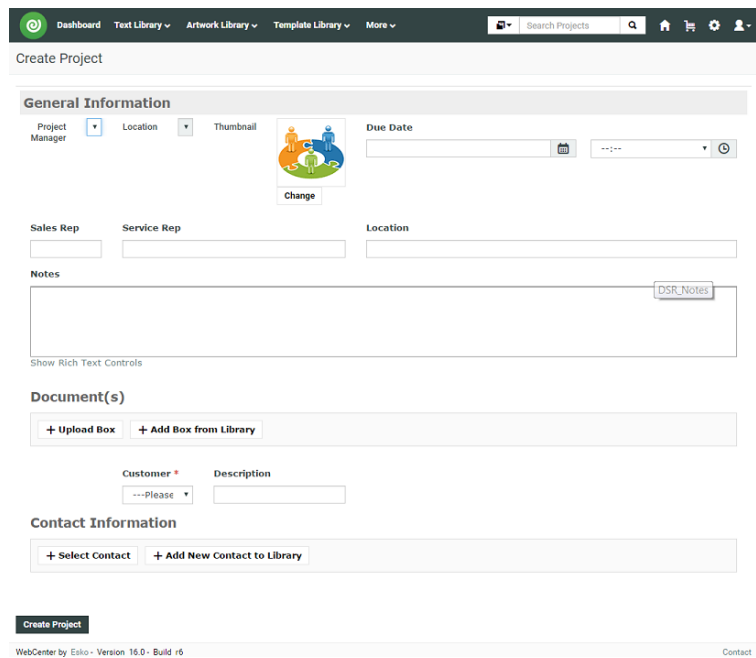
17.3.5. Configuring Preview for Attribute Category

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.

17.3.6. 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.

17.3.7. 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.
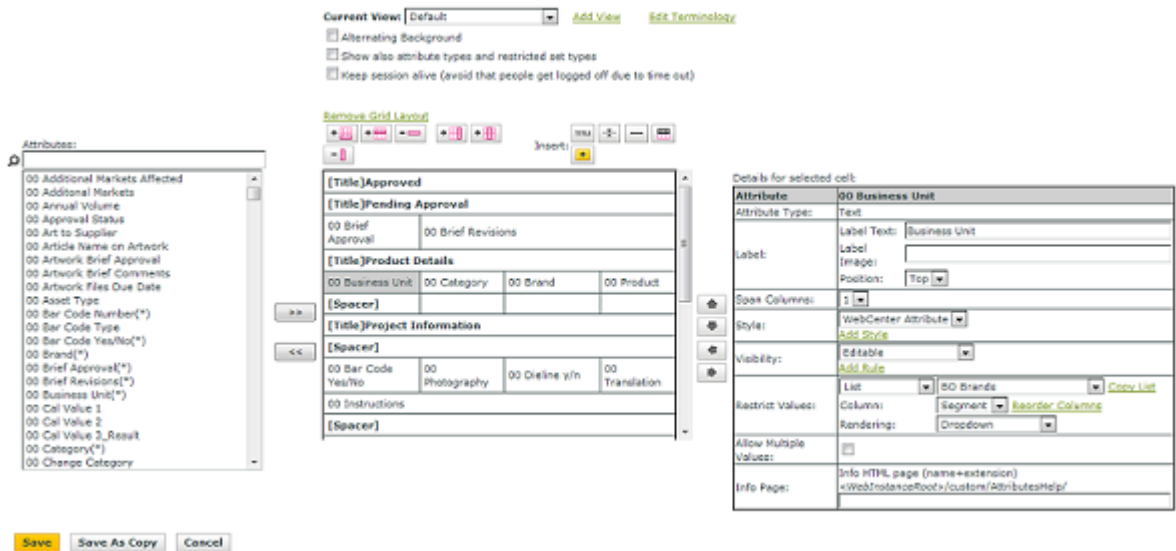
2. Select **Alternating background** if you want your rows to have an alternating background color.

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 in 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.

7. You have the option to have a cell to span over multiple rows. You can increase or decrease the row in the **Row Span**. You can increase or decrease the row span for cells to have better layout.

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.

Note: You can edit the formatting (color, height…) in the **Details** table at right when you select the cell.

9. 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.

10. 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.

11. 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**.

12. You can also format individual attribute cells using **Styles** (see *Define Styles* on page 274).

13. 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.**

14. 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 275.

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`.

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.

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).

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.

17.3.8. 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 279 button next to your Attributes in your form.
*   Click on any of the attributes. Its details will appear on the right side.
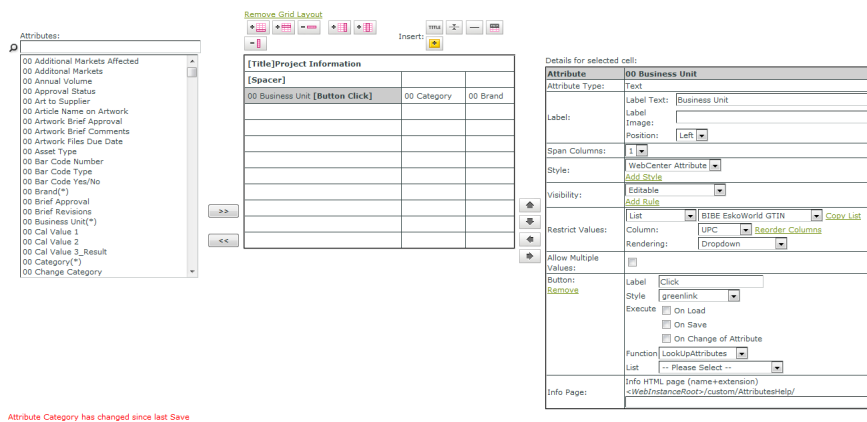
*   **Label Image**: You can add a representative image as a label image. Read more in *Create Image Label for an Attribute* on page 285.
*   **Restrict Values**: You can restrict values to **list** containing *Cascading Dropdowns* as **columns** and select their **rendering**.

    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 287.
*   **Info Page**: You can provide additional information in an HTML page. Read more in *Create HTML Information for an Attribute* on page 288.

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.

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*. *Cascading dropdowns placed on Web Server are not supported.*

- 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.

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*.

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 <u>a copy</u> 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
att["attribute name"]	Get the value of the specified attribute.
setatt("attribute name", "value")	Set the value of the specified attribute
prop["reference property name"]	Get the value of the referenced property
setprop("reference property name", "value")	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.

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	Retuns 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.

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.

Note: The image name is case sensitive.

You can see image labels appearing instead of attribute names in the forms.

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**.

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**.

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.

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**.

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.
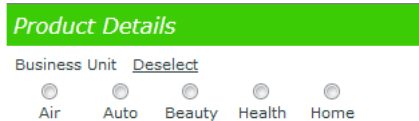
You will have check boxes for a multi-value attribute. Select the **Allow Multiple Values** option for this.
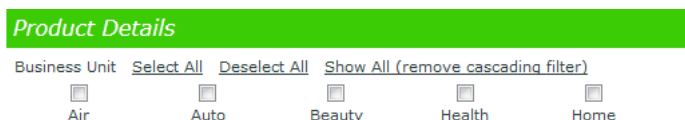
Note:

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.

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.

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**:

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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.
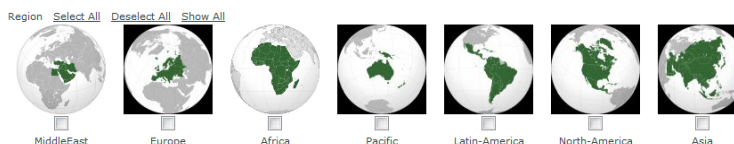
Troubleshooting

- **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.

17.3.9. 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).

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.

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).

17.4. Lists

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 149.
- **Look Up attribute value**s buttons in attribute categories and task type specification forms.

You can create Cascading dropdowns as:

- *Lists* on page 295 based on WebCenter Database.
- *Cascading Dropdowns* based on *Excel sheets placed on the web server*.

Note: We recommend that you reconfigure the attribute categories and task types to use the database **lists**. The Excel sheet based cascading dropdowns will become obsolete eventually.

17.4.1. 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.

Note: This works in the same way as the List Data imported from Excel sheets. However, you can use larger data sets with these Database Lists. Read more about Lists from Excel sheets in *Cascading Dropdowns from Excel Sheet* on page 302

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 Identifier**s (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 297 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 Identifier**s (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

You can use **Lists** in the same way as the *cascading dropdowns from Excel sheets*.

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.

2. Click on the **Configure List** link.
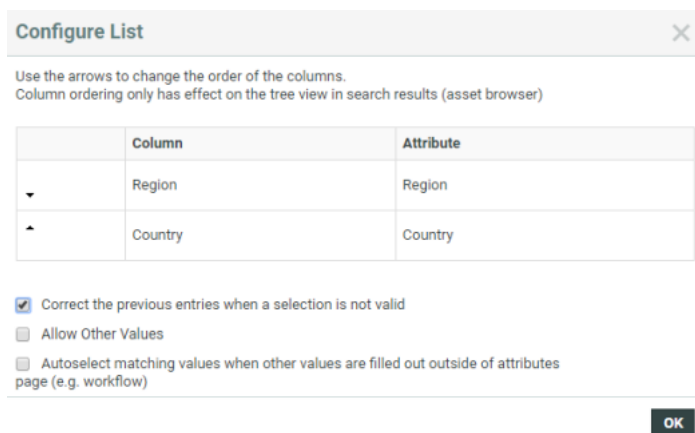
3. In the resulting dialog, you can use the arrows to change the order of the columns in the cascading drop downs.

> **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.
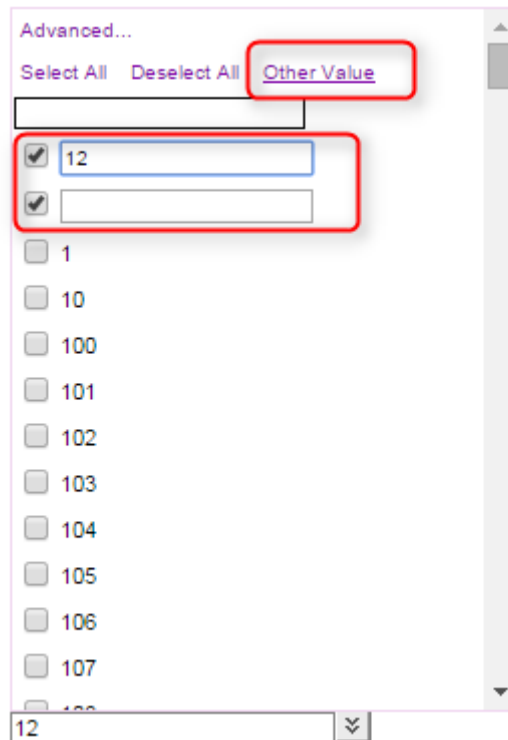
6. Optionally, enable **Autoselect matching values when other values are filled out outside of attributes page (e.g. workflow)**. This checkbox is off by default.

   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.

17.4.2. Cascading Dropdowns from Excel Sheet

Installing Cascading Dropdowns from Excel Sheet

You can create Cascading Dropdowns by following the steps below.

Note: We recommend that you reconfigure the attribute categories and task types to use the database **lists**. The Excel sheet based cascading dropdowns will become obsolete eventually.

1. Go to `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\custom`. Create a folder named `excel` under the `custom` folder if it is not present.

   Only for WebCenter 10.2 users: go to webapp\javascript\cascading dropdowns and copy the two javascript files to webapp\javascript. We recommend that these two files are backed up.

2. You need to place an XML file named `lists.xml` and the excel file (with your attributes to be imported) in the `excel` folder.

You will find an example XML file called `lists.xml` and excel sheets in the `excel` folder under `webapp\custom_example`.

3. Adapt `lists.xml` according to your requirements, within the structure given in the example file. See an example below:

```
<lists> <list> <name>Countries and
                Managers</name> <file>CountryList.xls</file>
                <type>Excel</type> <sheet>Country</sheet>
                <column><columnName>CountryName</columnName></column>
                <column><columnName>CountryCode</columnName></column>
                <column><columnName>Region</columnName></column>
                <column><columnName>CountryManager</columnName></column>
                <column><columnName>RegionManager</columnName></column>
                </list> <list> <name>Countries</name>
                <file>CountryList.xls</file>
                <type>Excel</type> <sheet>Country</sheet>
                <column><columnName>CountryName</columnName></column>
                <column><columnName>CountryCode</columnName></column>
                </list> </lists>
```

Note:

- `<lists>`: This tag is obligatory in this code. You can specify the rest of the details regarding the importing attribute list under `<list>` tag. In the above example, two attribute lists are being imported.

- `<name>`: You can specify the name of the list which should appear among the WebCenter attribute lists after this tag. There are two lists in the above example. The lists are named `Countries and Managers` and `Countries`. These names appear in as List names in the **Restrict Values** option.

- `<file>`: You should indicate the file name (including the .xls extension) after this tag. In the above example, it is `CountryList.xls` and this file is placed along with `lists.xml` in the `custom` folder.

- `<type>`: This should be `Excel`.

- `<sheet>`: Here you should specify the name of the work sheet in the excel file. Please avoid special characters and spaces in the sheet name. The sheet name in the above example is `Country`. You can make more than one lists from one sheet.

  Remember:

  You cannot make one list from the columns placed in different sheets.

  As shown in the example, you can make two lists from the same excel sheet or from different sheets in the same excel file.

- `<column>`: Each column in the excel sheet should be specified separately under the `<column>` tag for each of the lists. In the example, five columns are specified under the list named `Countries and Managers` and two columns under the list named `Countries`. The data from the specified columns will be imported into WebCenter attribute categories.

- `<columnName>`: You should indicate name of the column here. Excel files get column names from the values placed in the first row. Please avoid special characters in the column names.

4. Save and close the `lists.xml` file.

   Make sure that your XML is XML-compliant and in the right folder (`excel`).

5. Login to WebCenter as an admin. In the attribute category definition (**Attributes** > **Attribute Categories** and in `Grid Layout`), click on a text attribute (not on a restricted set).

   A **Restrict Values** item will be visible in the **Details** section. This shows a dropdown with the lists you have configured in `lists.xml`.
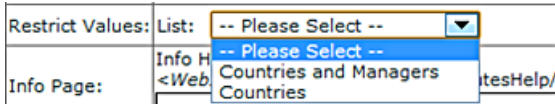
   These lists will have the values from the columns of the excel sheet.

   Note: If you are uninstalling WebCenter, the custom folder should be backed up and placed back in the same location as before to restore the Cascading Dropdown functionality in the new installation. If this folder or one of the files is missing, you will lose the installed Cascading Dropdowns.

Using Excel based Cascading Dropdowns

The cascading attributes that have been imported will be visible in the attribute category definition. You can see a dropdown with the lists you have configured in **lists.xml** here. These dropdowns are filtered to the row combinations from Excel worksheets.

An example use case is when you want to you use all your brands and sub-brands and the respective managers to be filled in to the project or for when you choose a product. If you have an excel file with the information that needs to be imported into WebCenter, you can import this by following the steps described in *Installing Cascading Dropdowns from Excel Sheet* on page 302

1. Create an Excel file with `Column Names` in the first row and fill the columns with your brand related information that needs to be in the WebCenter Cascading Attributes.

   Note:

   • Please note that the columns that should be part of one list should be placed in one Excel Sheet. It is not possible to make one list out of the data placed in different sheets.
   • The Cascading Dropdowns are filtered to the row combinations from the specified worksheet. The linking of row combinations is currently only possible for the columns placed in one Excel sheet.
   • We recommend you delete the first empty lines at the bottom of the Excel sheet to avoid the Excel driver picking up completely empty lines and producing them as valid combinations.
   • Make sure you save the Excel file as a `.xls` and not as a `.xlsx` file.

   • The current driver for Excel sheets does not support Asian characters. Installing another driver can help solving this problem, but Esko does not have an out-of-the-box recommendation at this time.

2. Adapt **lists.xml** according to the information from the Excel file. Save and close the file.

   The Excel file and the XML file should be placed in the folder named **excel**. See the location of the folder below.
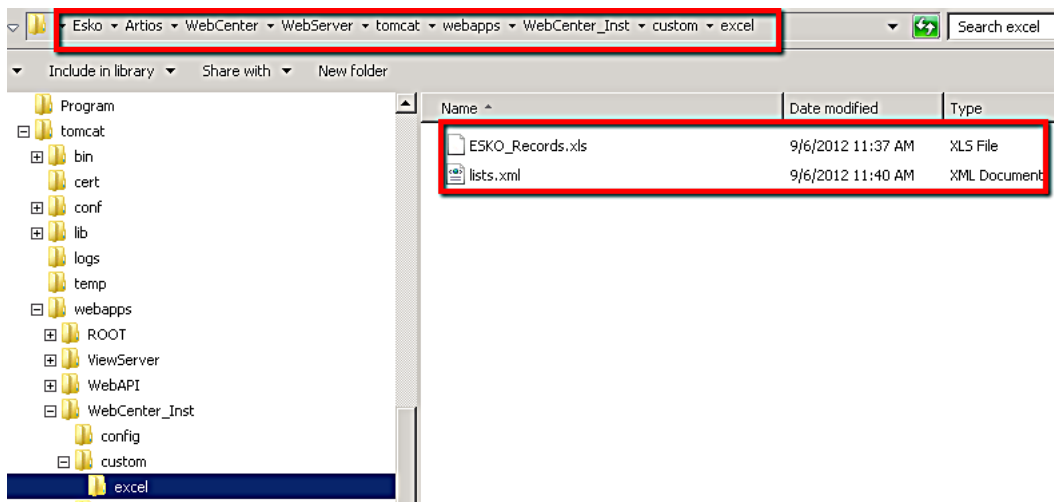

```
<lists>

 <list>
  <name>Esko Brands and Managers</name>
  <file>ESKO_Records.xls</file>
  <type>Excel</type>
  <sheet>Esko</sheet>
  <column><columnName>Brand</columnName></column>
  <column><columnName>Category</columnName></column>
  <column><columnName>ProductManager</columnName></column>
  <column><columnName>Director</columnName></column>
  <column><columnName>SeniorVP</columnName></column>

 </list>
 <list>
  <name>Esko Group</name>
  <file>ESKO_Records.xls</file>
  <type>Excel</type>
  <sheet>Esko</sheet>
  <column><columnName>Group</columnName></column>
  <column><columnName>Ecosystem</columnName></column>
 </list>
```

```
</lists>
```

See more on installation of this feature in *Installing Cascading Dropdowns from Excel Sheet* on page 302

Note: You can define more than one lists using columns from a single Excel sheet.

In the Admin mode, go to **Attributes** > **Attribute Categories** 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 **Esko Brands and Managers** and **Esko Group** as **lists**. These are now available for use in your **Projects** and Fo.rms
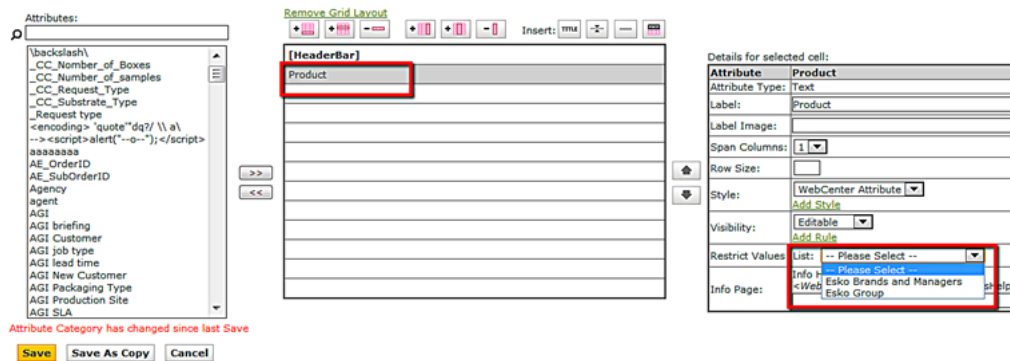
3. Create attribute categories which contains the product and brand specific information and save it.

a) Create specific **attributes**. Select the type as text if you want to have Cascading Dropdowns in the Details. Read more about creating attributes in *Create an Attribute* on page 251

b) Create/edit **attribute category**. Bring these attributes to this category in the **Grid layout**. In this example, an attribute category is created with Esko brand related attributes. See the screenshot below.

c) Select the **List** and **Column** in the **Restrict Values** Section for each of the attributes that needs to contain Cascading Dropdowns. **List** indicates the list names given in the **lists.xml** file and **Column** indicates the column names in the Excel sheets associated with that list.

d) You can have more than one values in the attribute fields by enabling **Allow Multiple Values**. In the above example when a product has to be associated with more thane one Ecosystems, you can enable **Allow Multiple Values** with more than one Ecosystems.

When you have defined attribute category with lists and columns, you will have Dropdowns available in each of the fields and it will respect the row combinations of Excel values. Therefore, when you select one value in a specific attribute field, the related information will be smartly filtered and automatically filled in if there is only one possible value left for those attribute fields.

The dropdowns interact in such a way that only those values are shown which are linked to the already chosen values for other columns. This will be a very handy feature when complicated forms have to be filled in.

In the example here, you can see that when WebCenter is selected, all the associated information is filled in from the same list. The associated data come from the columns of the list `Esko Brands and Managers`.

Note:

If you would like smart filtering and automatic fill in, the columns have to be specified in the same list in lists.xml.

If you want independent columns with all values irrespective of the selection, define separate lists.

Note:

You can apply rules to these **lists** to induce advanced customization. For example. you can set one attribute (Brand description) to be read-only. As a consequence when you select the attribute Brand(editable), the brand description (read-only) will be automatically filled in.

4. Apply the attribute category with embedded lists containing imported information to any related project or documents. You can also use these attributes to build Asset Browsers. Read more in *Lists* on page 295

Note: Cascading dropdowns are used in setting up an Asset Browser. Read more in

Troubleshooting

When a column contains lots of numbers, non-numbers are no longer appears in the dropdown and the numbers are displayed with .0 after them

This is caused by the excel reader (which is a piece of Microsoft code) trying to figure out the data type in the column. It does not work according to the formatting type and therefore changing the formatting

would not solve the problem. So if half (approximately) of the values are numbers, it interprets them as numbers and dumps all the rest. We are looking for a solution by enforcing the numbers to be interpreted as text.

To work around this problem, you can do add space to each value to make it pure text. The procedure to do this automatically is detailed below.

1. Make a new column.
2. Copy the header from the original column to this new column.
3. Change the original column name.
4. In the new column, set the value for the first (non-header) row to CONCATENATE(" ",X2). Here, X is the new column with the original data.
5. Copy this to all rows (select the cells from the just entered cell all the way down and do a Ctrl-D.
6. Save your file and close it

The Restrict values choice does not appear in the cell details while selecting a cell in the Attribute Category layout

You need to make sure that you:

• are in the **Grid layout**
• choose the right **Attribute Type** for the selected cell. It should be text (simple, not rich text) type.
• did not choose a **Restricted Set**.

If all the above settings are correct and you do not have the R**estrict Values** option, you have to check the configuration of the lists.xml. If WebCenter fails to find a lists.xml, it assumes that there are no lists and therefore does not show the **Restrict Values** option. The most likely cause is that lists.xml is not at the right location.

It should be placed under `WebCenter\WebServer\tomcat\webapps\WebCenter_Inst \custom|custom`.

Check also the access rights to see if the access to read the xml is given.

The problem could arise if your lists.xml is not well-formed (not a valid xml). To check this, open the file with Internet Explorer. If you get a message "The XML page cannot be displayed", it indicates that your XML is not valid. Internet Explorer also points to other errors.

I get an error message in the Attribute Category layout

You will get an indication about what is going wrong by reading the error message. Most errors look like:

• *Cannot read list Project Code*
• *error:*
• *java.sql.SQLException: [Microsoft][ODBC Excel Driver] Cannot open database '(unknown)'. It may not be a database that your application recognizes, or the file may be corrupt. xxx\custom\excel \Products.xls*

Check whether:

• the Excel file is open. You can check it by opening it yourself . If it is opened by someone else, Excel warns you about it.

> **Note:** You need to close it after you open the Excel file. If you leave it open, it might result in the error described above.

• Check the location of the Excel file.
• Cross check the name of the Excel file with the one from the error message.
• Check for any typing errors in lists.xml.

I get an error message "List xxx is no longer configured".

This means that the **attribute category** points to a list which is no longer configured correctly in XML filec(lists.xml). In this situation, all dropdowns will be replaced by simple text fields.

The dropdowns do not appear during project creation, document upload or attribute editing

Open the **Attribute category layout** as admin and see whether you get an error message. This situation points to the removal of lists.xml or one of its items.

After a re-install my Cascading dropdowns no longer appear.

If you are uninstalling WebCenter, the custom folder should be backed up and placed back in the same location as before to restore the Cascading Dropdown functionality in the new installation. If this folder or one of the files is missing, you will lose the installed Cascading Dropdowns.

17.4.3. Why Use Database Lists instead of Web Server Lists?

Database Lists	Web Server Lists
Higher Security : These are maintained in the protected WebCenter database.	You need advanced setup through IIS configuration to prevent security breach.
Reliability : Existing database drivers are reliable.	The Excel reading driver is system dependent. This limits access to one reader at a time.
Scalable	The scalability is poor.
Easy Update	Difficult to update configurations. When you update, you have to save your custom Lists folder separately
Easy administration: You can manage these via the WebCenter interface. Even non-administrators can update the master data if the administrators allow this.	Administration only via the web server.
Faster data loading: The attribute category loads information bit by bit ensuring a better user experience.	Excel based lists are loaded entirely when the form is loaded. This slows down the form data loading.
Unlimited List Size: We have tested the Lists with up to 200,000 rows of data.	There is also a limitation to the size of the data (maximum of 15000 rows in the Excel sheet). The driver used is limited to 64K rows which would make a product list with 100,000 products non-practical.
Support for .xlsx files	Only .xls files are supported.

> **Important:**
>
> WebCenter 14 is a 64-bit system using only 64-bit drivers. In order to continue using the web server based cascading dropdowns, you have to install this 64-bit driver. Read more info on *Esko Knowledge Base*.

17.5. 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.

17.5.1. 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...
Name	name of the **document reference attribute**
Label	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 *Find or Create Translated labels* on page 253
Description	description of the attribute contents (for example, `link to the CAD shape document`).
Type	select **document reference** as the type.

In the field...	Fill in the...

--- Select Attribute Type ---

--- Select Attribute Type ---
Area(sq in.,sq cm)
Area(sq in.,sq mm)
Area(sq ft,sq m)
Date and Time
Distance(in.,mm)
Distance(in.,m)
Document Reference
Float
Integer
Rich Text
Text
Text (Right to left)
Volume(cu in.,cu cm)
Volume(cu in.,cu dm)
Volume(cu ft,cu m)
Weight(lbs,gr)
Weight(lbs,kg)

References are attribute-links pointing to different document

In the field...	Fill in the...
	sources. When you select this option, you will have additional options.
Values	will be set to **Prompted** by default.
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.
Reference Category	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**. 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.

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*".

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.

17.5.2. Edit a Document Reference Attribute

1. Click **Admin** > **Attributes**
2. Click the attribute to edit.
3. 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 *	ACAD - Referenced ARDs
	Tip: Enter a name with a prefix to find it back more easily.
Description	Description
Type *	Document Reference
Value *	◉ Prompted
	○ Calculated
	○ Restricted Set
Versions and Revisions *	Selected Revision ▼ ⓘ
Reference Category	--- Select 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

Change   Return

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.

17.5.3. 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.

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.

17.5.4. 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**.

17.5.5. 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 320.

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 ⓘ Edit Configuration
Rendering:	Table ▾ ⓘ Components_Default Edit Render Configuration

- Check **Allow Multiple values** to allow the reference to multiple documents. This feature is detailed in *Create a Multi-Value Attribute* on page 287
- **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 315.
- **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 315.
- **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 321.

  - *Document Sources for Different Attribute Views* on page 323.
- **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...
Simple	Upload CAD Add CAD from Library ▾ Add CAD from Library (Reference): ball.ard ⊗ ⬍ Add CAD from Library (Reference): BOXCO_00001.ard ⊗

If you select your rendering as:	The result will be...

	• The document references will have:
	
	   • the document name as a hyperlink. Click this link to open the document in a new tab.
	   • a thumbnail. Click on the thumbnail to open the document in the Viewer.
	   • a delete button
	   • up/down arrow to re-order the document list.

Table	An advanced table depending on your configuration. For example, you can configure editable attributes into your table. Read more details in: *Create an Advanced Table Rendering* on page 324

- **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.

You can configure:

- a simple **Browse** link for the user to upload a document.

> **Note:** You can also drag and drop multiple files to 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 99.
- **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 366

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**
- the destination folder

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.

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 ⓘ Edit Configuration
Rendering:	Table ▾ ⓘ Components_Default Edit Render Configuration

- 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.

- 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...
• **Description** • **VersionRevision** • **VersionAuthor** • **Project** • **ApprovalStatus** • **ApprovalStage** • **ModifiedDate** • **Thumbnail** **Tip:** • Create custom **labels** • Specify the pixels for your **thumbnail**. • Check the box **Allow uploading a new Version** button	The selected document properties will appear in the table header with the custom **label**. For example: • the current Approval Stage of the document. The user can click to access the approval pop-up. • Clickable thumbnail of the document with the default (50x50) or specified pixels. | Version		estado de aprobación	etapa de aprobación
---	---	---	---
1	⊗	⟳	Stage2
1	⊗	✓	Etapa 3	 • **Upload New Version** 🔼 if you have the rights to upload will be available in the **Version** column.

• 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.

⊗ ▲ [Document Actions ▼] [Open 3D View ▼] ⊗   [Actions]   Re
                                        [View ▼] ⊗
                                        [Open in ArtiosCAD ▼] ⊗
                                        [Download ▼] ⊗
                                        [Upload New Version ▼] ⊗
                                        ~~Add Action~~
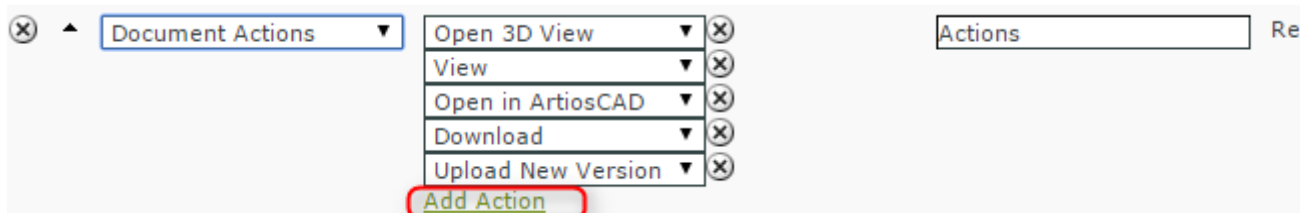
Choose Document Actions as...	The result in the rendering table will be...
• **View** • **Open in 3D** • **Open in ArtiosCAD** • **Download** • **Upload New Version** • **Update to Latest Version**	• A 3D ⬜ button will be available only when there is an existing 3D perspective. • **Open in ArtiosCAD** option will be available for CAD files. Clicking on it will open the CAD document as set up in the **preferences** • **Download** option will be available when the user has download permission. • **Upload New Version**: This is available when the user has the rights to upload new version. **Note:** The **Upload New Version** 🔼 button can also be placed in the Version column by checking the **Allow uploading a new version** check box. • **Update to Latest Version:** Allows user to update to the latest version

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.
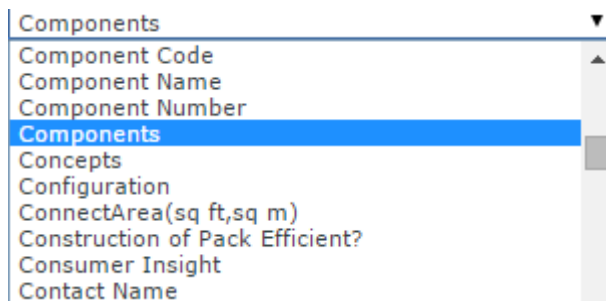
Specify the Visibility of the attribute as...	The result in the rendering table will be...
• **Editable** if you want the users (with the right permissions) to be able to edit this attribute. • **Required** if you want to make it mandatory for users (with the right permissions) to fill in this attribute. • **Read Only** if you don't want **any** user to be able to edit this attribute.	• The selected document attributes will be displayed in the table header and its values in the respective columns. Width * | Length • The users can type in the values for the editable attributes. Weight | Date 1g | May 26, 2015 | 13:30 ▼ **Note:** You can configure the **Visibility** also at the attribute level. If your settings differ, the most restrictive setting will be applied.

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...
• **read-only** • **editable** **Note:** The user needs **Change properties** right to edit attribute values.	Click ⊞ to expand the document attributes (which may also be document references): **Tip:** Keep this **editable**, if your users have to edit the document reference's attributes. When the document attributes are expanded, you can use ⊟ to collapse them.

- 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.

> **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 don't want **any** user to be able to edit this attribute.	• 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.
Hidden if you want to specify a Reference Property, but do not want to show it in the table. **Note:** This option is specific to **Reference Properties**.	• No visible **reference attributes** in the table • The values (of the **reference attributes**) are retained when you *duplicate* or *replace* a document reference.

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**.

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 [Reference] 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 337
• 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 335

- 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 334.

  d) **Replace** button which allows the user to replace a document reference. Read more: *Replace a Document Reference* on page 335.

  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.

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. 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.

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.

Tip:

• The document will be named as `[FileName] [Duplicate] [1]`, `[FileName] [Duplicate] [2]`, etc.

• Use the **Rename** document action to change the document name.

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 the user **replaces** the old reference, the new document reference will have the same **reference category** as the old one.

Note: Only users who are Project managers, Administrators or with Change Properties rights can replace the document reference.

When you configure a **Replace button**, it will allow the users:

- to replace the document via any of the configured *document sources* (**upload**, **browse**, etc.). If the user did not select any option, the first source will be taken as the default.
- to **Undo the action** before saving the new document reference.

This document will have its own **Attribute Category** but will keep the same **Reference Category** as the old reference.

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 together which will be 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 in: *Import Dynamic Text*.

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.

Create a Table Rendering for Text Documents

You can configure Text or Table Documents as document references and add them to a Project or Document Attribute category. The configuration and rendering are similar for Task Specifications.

To create a Copy Sheet using Text Document References, you can configure text related data to an advanced table rendering.

1. *Create a Table Rendering*.
2. In the **Edit Rendering Configuration** pop-up:

Specify...	The result in the rendering table will be...
Master Text	Master Text Statement in a text widget along with its content in the edit field and all related text content actions.

Specify...	The result in the rendering table will be...
	Note: The **Visibility** should be specified as Editable if you want your users to edit the text.
Translation Text	Translation Text Statement(s) in widgets. One or more columns can be configured for the translations of the Master Text. The Master and Translation languages will also appear in a drop down.
Text Language Flags	The language drop downs for Master and Translation Text columns.
	Note: The master and translation languages are populated from the project attributes MASTER_TEXT_LANGUAGE and TRANSLATION_TEXT_LANGUAGE respectively.

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 will be 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 following:

- Document Name
- Master Text
- Translation Text
- 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.

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.

   • 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. Read more in:

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 [Reference] 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 will be reset to **Draft**.

If **Retain text document status** option is turned on, when you copy the document, the document's approval status will be 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 450.

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.

17.5.6. 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.
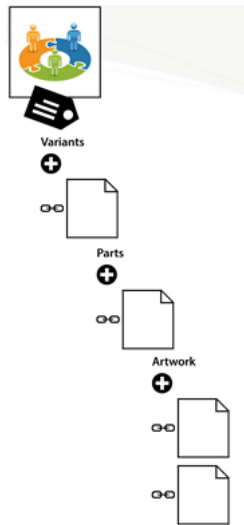
To create such document reference system, you need:

- 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

- 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.
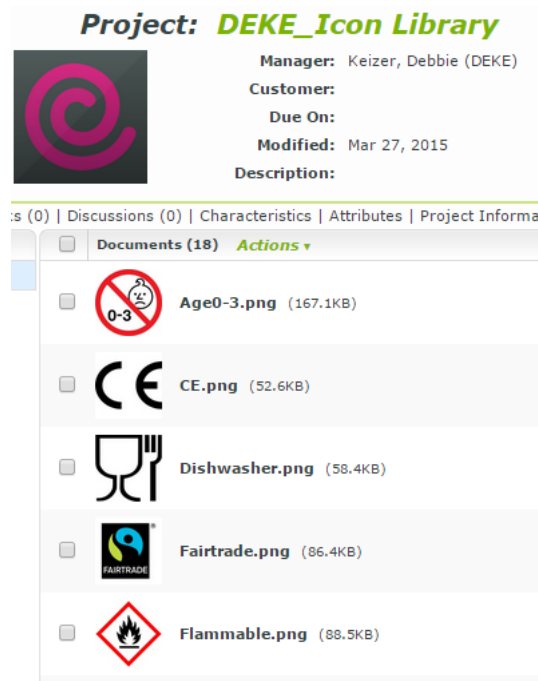
- Text Content Documents

- 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 312

   - *Reference Category* on page 315

3. **Create Document Templates with Attributes**.

   Your Project Managers can use *Document Templates* on page 99 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 312.

      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**.

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 321

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**.

- 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.**

- 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.

17.5.7. 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,
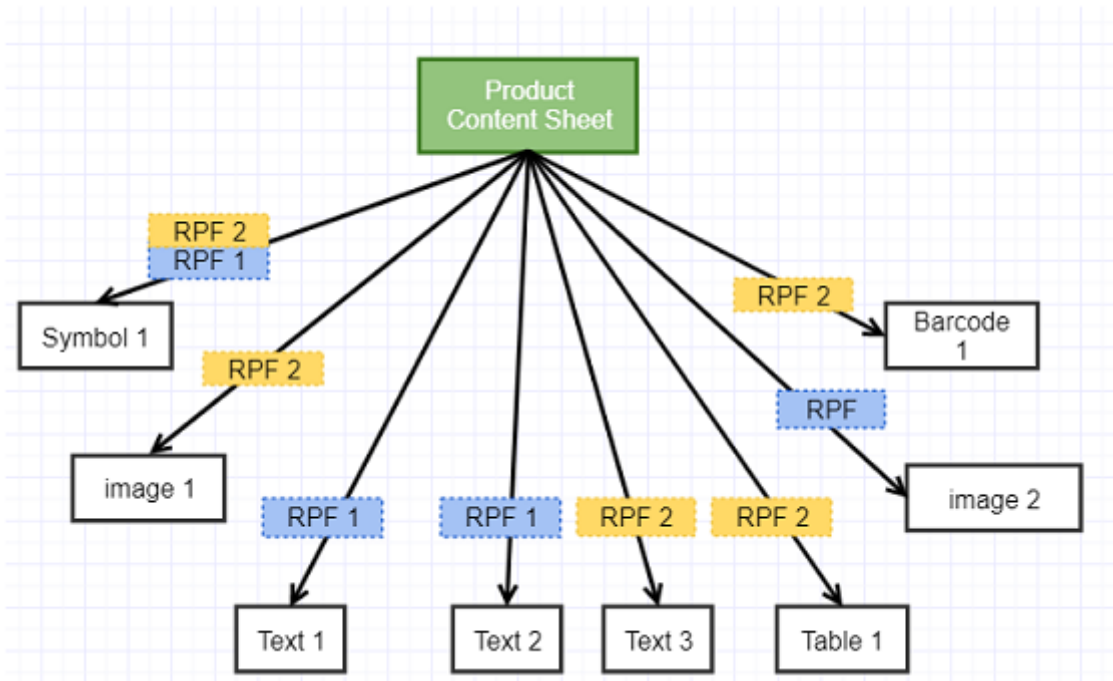
Multiple products or artworks can reuse the same content like text, recipes, images and so on. To specify the context of using the content as reference, you have to filter the context, in which the content sheet can be used in the artwork. To know more about **Product Content Sheet**, read *Product Content Sheet*.

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

reference.

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.

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.

17.5.8. 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.

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.

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.

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**.

2. Provide the required e-mail settings:

Configuration Option	Description
E-Mail Service Protocol	Set to the SMTP protocol.
E-Mail functionality enabled	To enable/disable e-mail functionality.
E-Mail debugging output in log	To enable/disable e-mail debugging output in log files.
E-Mail Service Host	Address for the preferred mail server that will act as the server for dispatching e-mail notifications.
E-Mail Service Port Number	Port number on which the e-mail server is listening for incoming e-mails.
Outgoing E-Mail Notifications "FROM" Address	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
E-Mail Session Authentication	Select this option if the mail server connection session should be authenticated using a username and password.
E-Mail Service Username	Mail account user name when authentication is required.
E-Mail Service Password	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*.

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*.

18.2.1. 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.

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 380

18.3.1. 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 398),

- 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.

6. 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]`.

18.3.2. 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(att) {
 var extWebConn = "SOAPService"; // name of connection

 var attr1 = att['attr1'];
 var attr2 = att['attr2'];
 var attr3 = att['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
&responsetype=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.

18.3.3. 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.

18.4. 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.*

18.4.1. 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.

18.4.2. 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
To export your projects as JDF files (and automatically create jobs in your workflow system from your projects)...	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. *Read more*.
To automatically archive your documents and metadata (as a ZIP file) in a network 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.

- **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...
JMF Service	

If your JDF Service is...	Follow this procedure...
Note: You need JMF Service to connect to Automation Engine if it is not in the same LAN or not publicly available.	 You can setup a **JMF** connection following the steps below: **1.** Select whether your Automation Engine is: • in the same LAN or publicly available. • connected through the **Approval and Tunnel Client**. Read in *Configure Workflow Approval and Tunnel Clients* on page 373 **2.** If your Automation Engine connection is: • in the same LAN / public, specify either the host address (e.g.: `192.168.1.1.1`) or the host name (`aeserver.brand.com`). • via an **Approval and Tunnel Client**, select the client from the drop-down. **3.** Click **Generate URL**. The URL field above will be filled in automatically. **Warning:** A **Workflow Connection** connected through an **Approval and Tunnel Client** will block one concurrent license.
JDF HotFolder	Select this option if your JDF tickets should be placed in a shared *Hot folder*. **1.** In the UNC field that appears, enter the address of your workflow's JDF hot folders (in which to place the JDF file). This must be in an accessible network share, in UNC format (for example \\MyWorkflowServer\MyJobContainer\HotFolder).

If your JDF Service is...	Follow this procedure...
	2. Click **Test**.

- 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**.

18.4.3. 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**.

18.4.4. 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.

18.4.5. Add a Workflow Connection to a Project / Template

Once you have created a workflow connection, you need to add it to project templates that Projects 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 365).

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 365).

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 360), **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**.

18.4.6. 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**.

18.5. Configure Asset Management Connections

Asset Management Connections

You can configure Asset Management Connections to connect to external digital asset management (DAM) system (for example, MediaBeacon or another WebCenter system. When you have 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 feature 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 on 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 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 finalist 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 System History. Read this page on how to access the records*System History on page 380*

18.5.1. Esko Cloud

Esko Cloud is a cloud server environment in which all the Esko's cloud applications are deployed. Dedicated services are made available which provides functionality to other applications for instance, like 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

> **Note:** To know more about setting an Esko cloud account read *here*.

- Archiving of documents

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.

18.5.2. Esko Cloud Account Creation

To connect to 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. On creation of the Esko Cloud Account, you are auto navigated to the **My Network** page.

    Select **Add Equipment Network** option to create Equipment in **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.

Equipment ID in the cloud account is required to enable connection to either Color Service or Archiving service from WebCenter.

18.5.3. Configure Esko Cloud Connection in WebCenter

An Admin user can setup the connection to the ESKO cloud. ESKO Cloud Connection can be set up for Archiving or Color service. To begin with, navigate to **Asset Management Connections** page 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. This is a mandatory field to be entered.
3. Enter the **URL** of the Connection. This is a mandatory field to be entered.
4. Enter the **Cloud Token**. This is a mandatory field to be entered.
5. Choose the **Cloud Service** as either **Archiving** or **Color**. This is a mandatory field to be selected and by default Archiving is chosen. In case the Cloud Service chosen is Color, additional steps are required and are mentioned *here*.
6. Enter the **Repository ID** and **Equipment.** This is a mandatory field to be entered for Archiving only. Repository ID will contain the ESKO cloud repository and the Equipment would hold the name of the equipment created in the Esko Cloud.
7. Now you can test the connection with **Test Connection** before you **Create**.

Configure Color Cloud

A connection to the Esko cloud account can be established by the WebCenter Admin user in the **Asset Management Connections** page, where the connection information is configured.

Setup of the connection to the Esko cloud with choosing the service as **Color** is the first step in the Cloud Trace Solution from ESKO.

To begin with, enter the name, URL, Cloud token for the Esko Color cloud. On choosing the service as color in the New ESKO cloud connection, additional fields are shown.

• **Deployment Package**: **Import Assets** while setting- up the Color Trace solution for the first time in Web Center. 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 on **Test Connection.** Select **Create** on save the information provided and create a new color service Esko cloud 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.

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	**Import Assets...**	
	Info: Required assets are missing. It is strongly advised to import the Deployment Package.	
Color Information	**Import Color Books...**	**Force Update Color Books...**
	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 Web Center 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.

18.5.4. Store Color

Text

18.6. Assisted QA

WebCenter Viewer now allows integration with third party external web QA (quality assurance) tools namely **InformaT** and **TVT** for additional comparison features. You can configure a connection between the Comparison tool with Web Center 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

18.6.1. 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 InformaT 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.

18.7. Configure Push-Through Configurations for Workflow Folders

18.7.1. 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 Nexus, Automation Engine or Odystar, 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.
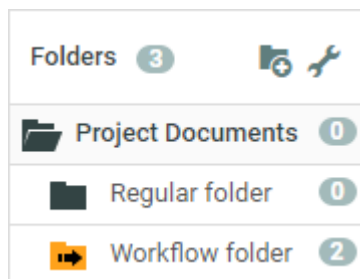
The files in a workflow folder have two extra icons:

* 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*.

18.7.2. 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.

18.8. 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*.

18.8.1. 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,

   • Nexus,

   • Odystar.

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**.

18.8.2. 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, Nexus, or Odystar sites communicating with WebCenter, you need to create a separate Workflow Approval Client for each site.

18.8.3. 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**.

18.8.4. 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.

18.8.5. 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, Nexus or Odystar).

18.9. 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*.

18.10. 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

18.11. 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
OK	The test was executed and everything works as expected.
BAD	The test was executed, it could be working, but something requires attention.
FAILED	The test failed. Is is very likely that there is something wrong with the system.
SKIPPED	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.

18.11.1. 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*.

18.12. 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**
  - **Workflow Step Processing Queue**
  - **Trigger Processing Queue**

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*.

18.13. 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 aciton.
- **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 ProfileDefaults

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*.

18.14. Site Service

18.14.1. 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.

18.15. 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.
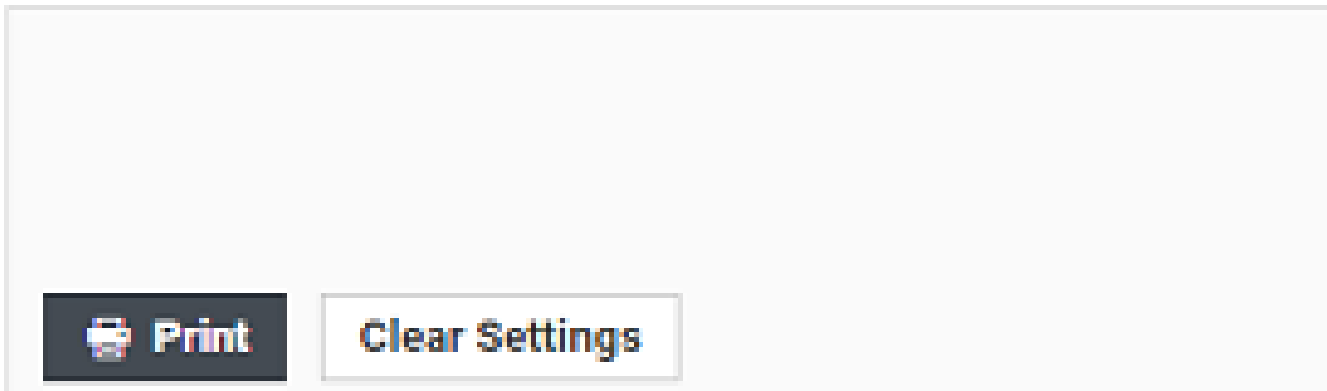
You can choose to view all the events or can specifically choose the events in which you are interested. By default, the first 200 records matching the filter and sorting option are shown, however, this can be increased or decreased, and it is possible to print the results matching the filter.

Events are tracked in the following pages in WebCenter

All Events ▼
All Events
▸ Asset Management Connection Events
▸ Assisted QA Tools Events
▸ Attribute Category Events
▸ Attribute Events
▸ Characteristic Events
▸ Company Events
▸ Dashboard Events
▸ External Web Connection Events
▸ Generic Configuration 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
▸ Saved Search Events
▸ Specification Events
▸ Task Status Events
▸ Task Type Events

Each of the page has different set of events captured and stored in history based on the nature of the event.

18.16. 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.

	Note: 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.

18.16.1. 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.

18.16.2. 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.

18.16.3. 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.

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.

18.16.4. 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.

18.16.5. 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.

18.16.6. 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*.

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
ssl.port	Default LDAP secure connection port The default value is `636`.
lookup.userinitials	AD path used for LDAP login name lockup. The default value is `sAMAccountName`.
lookup.firstname	First name key `givenName` (default)
lookup.lastname	Last name key `sn` (default)
lookup.mailid	Mail id key `mail` (default)
lookup.phonenumber	Phone Number key `telephoneNumber` (default)
lookup.mobilenumber	Mobile Number key `mobile` (default)
lookup.title	Maps to the Function in WebCenter `title` (default)

Options	Description
autoupdate	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`.
enforce	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.

18.16.7. 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.

18.16.8. 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.

18.16.9. 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 383 specifying a **Token Authentication** plugin.

2. *Configure a Single Sign On Instance* on page 385. 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.

.

18.16.10. 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.

18.16.11. 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*

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*.

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>

                                           <extension value=".doc"

    ViewGenerationTicket="MSOffice_to_SVG"/>

                                           <extension value=".docx"

    ViewGenerationTicket="MSOffice_to_SVG "/>

                                           <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 394.

   • 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 393

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 394.

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 394.

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 Artcle for example scripts and tickets.*

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 395

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.
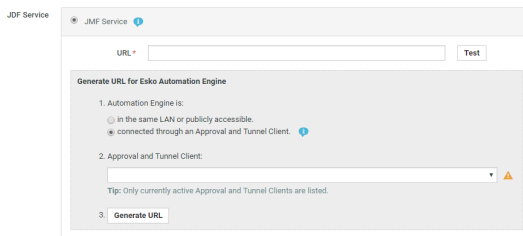
10. Specify that your Automation Engine is connected via the **Approval and Tunnel Client** created in step2. Select the **Approval and Tunnel Client** from the drop-down and click **Generate URL**.

> ⚠️ **Warning:** A **Workflow Connection** connected through an **Approval and Tunnel Client** will block one concurrent license.

11. 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.

12. Click **Create**.

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: [Project Name]   []

You can also combine them with plain text.

Folder: [Project Name]/designs   []

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.

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.

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]		#	
	[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]		#	#

Section	SmartName Available	Workflow	Search	AutoName
	[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]	#		
	[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 Manger (E-mail)]	#		
	[Sales Person (E-Mail)]	#		
	Workflow Task Owner (E-Mail)]	#		

Section	SmartName Available	Workflow	Search	AutoName
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.

22. Bill of Materials

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.

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**.

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.

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.

22.4. Editing the Bill of Materials

22.4.1. 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* 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 **active projects**	YES	YES	YES	NO
Can add/remove documents to/from the BOM in **inactive projects**	YES	YES	NO	NO
Can change the count of BOM documents	YES	YES	YES	NO

22.4.2. 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 104).

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 104).

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*).

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.
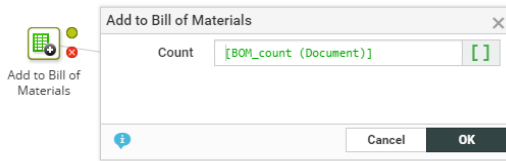
Here is an example workflow using the **Add to Bill of Materials** task:

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**.

22.4.3. 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.

22.5. How to Search for a Bill of Materials

22.5.1. 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.

22.5.2. 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* in the User Guide for more information about displaying search results.

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,
- Ⅱ 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.

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).

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.

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.

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.
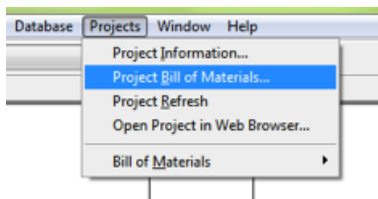
In ArtiosCAD Enterprise, you can:

- 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.

23. Autonaming

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.

23.1.1. 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 Autoname will be **begin_0001_end**. The next one will be **begin_0002_end**.
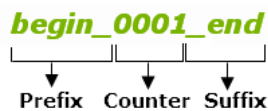
Note:

The Project / Document **Autonames** 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 Autoname. The maximum characters for Counter Length is set to 20.

23.1.2. Autonaming Projects

You can configure Autonaming for Projects in the following ways:

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 Autoname 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.

23.1.3. 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

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 exits 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 35

   a) Specify a **Prefix**, **Suffix** and the **Counter Length**. Read also: *Autonaming Structure* on page 412
   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 ⌑ 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, 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_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.

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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.

23.1.4. 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 249.

• Click the **Insert SmartName** button ⌑ and select a SmartName from the list that appears next to the button.

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 Autoname Generation:

The result will be, for example: `Chicago_23.12.12_0001_printpromotion`.

The result will be, for example: `CAD_0001_printpromotion_Chicago`.

Note:

- The [EditField] SmartName can 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 Autoname.

24. Program Management

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.
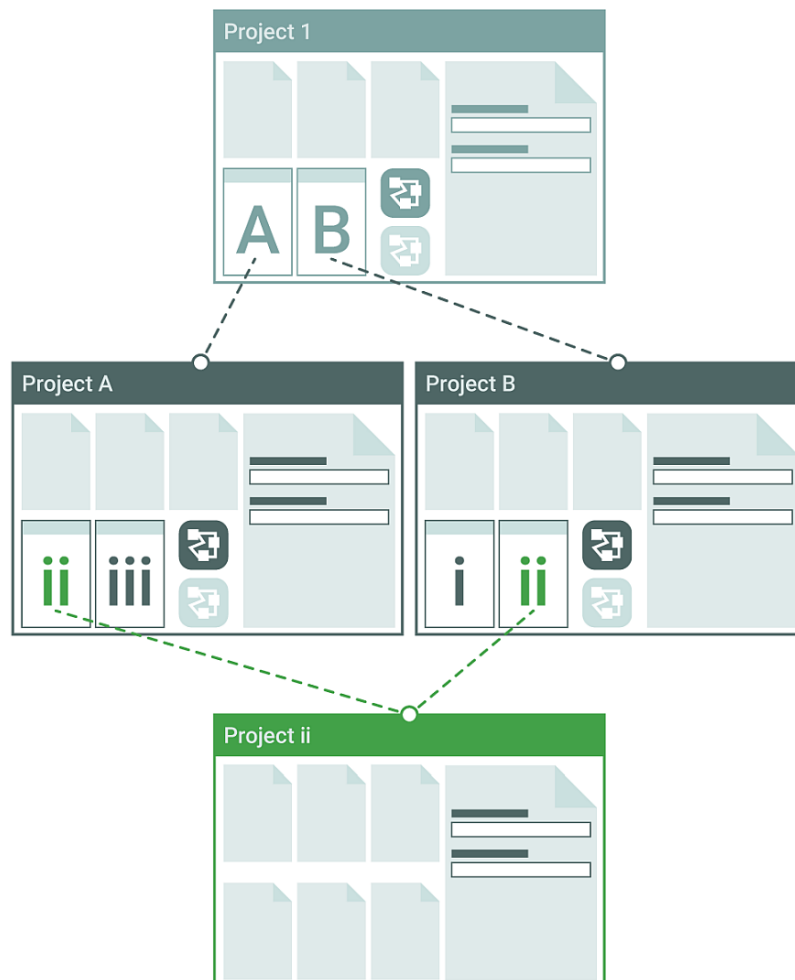
24.2. Program Management Related Components

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*

- *Ability to attach (and remove) existing projects into a Program*

- *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.

24.2.1. 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 99). To define existing components, just refer to them as *Document References* on page 311 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.

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
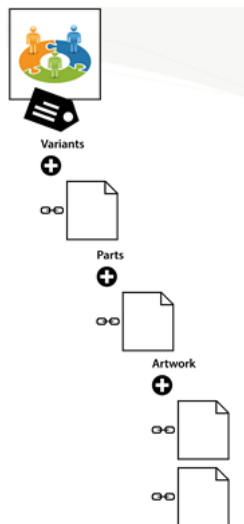
See details about how to create Projects based on these documents in *Adding/Creating Projects in a Program* on page 421.

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 424.

- *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*

24.2.2. 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 424.

- **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.

- **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 425
- **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*

  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.
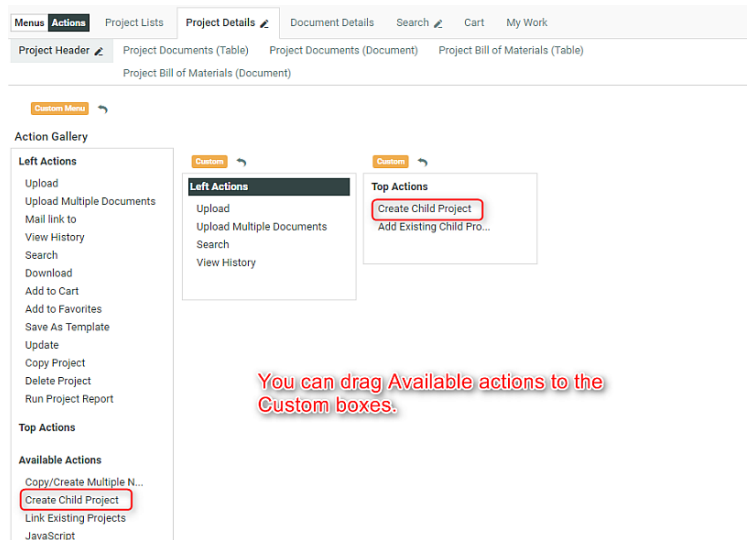
Read more in: *How to Create a Custom Action Button* on page 51

- Edit the settings of this **Action**. You can customize this to suit your needs. See more in: *Action Settings* on page 49.

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 49.

   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.

24.2.3. 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 200.

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)**.

24.2.4. 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:

- Drill-down 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.
- Drill-down into Components (documents) or Tasks

Read more in: *Configuring a Drill down Search* on page 183

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).
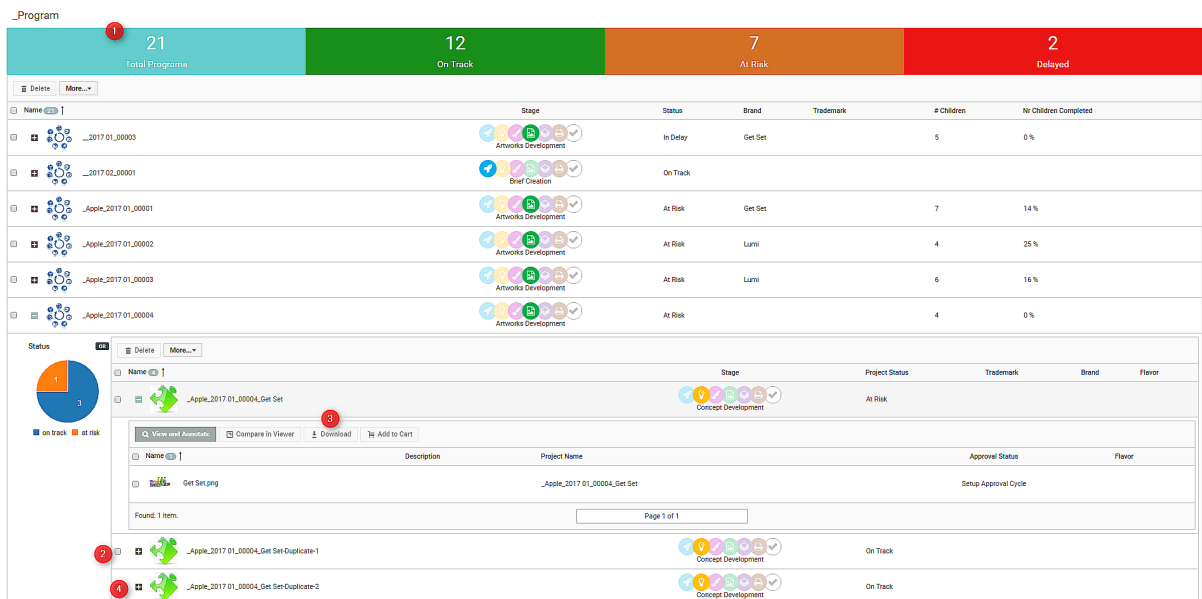
1. The parent Search with Programs. This example shows a *Search Results Dashboard* on page 184 with **counters**.
2. The second level of Drilldown which executes the **Saved Search** specified in the parent search. This search contains a **Dashboard** with a **Facet Graph**.*Configuring a Drill down Search* on page 183
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 188.

- **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 178

2. Plug these searches into Project Details menu and apply it to the relevant users (Program Managers and Project Managers).

24.2.5. 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 *

Check the State of the Campaign

Enabled

☑

Description

Will check the state of the campaign two days before a milestone is reached.

Order

1

When any of these Triggers occur

❌ | Date/Time Reached ▼ | mvbe Milestone 1 – 2 days ▼ | 📅

➕

Perform Action(s)

❌ | Execute JavaScript ▼ | mvbe Calculate Campaign At Risk … ▼

➕

Warning: Calculating date/time triggers can potentially take a while. This rule will be applied in 4 projects.

Cancel **Save**

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.

25. Color Trace Solution

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*

26. Packaging Content Management in WebCenter

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

26.2. Basic Concepts

26.2.1. 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 437

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.

26.2.2. 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**.

26.2.3. 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.

26.2.4. 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.
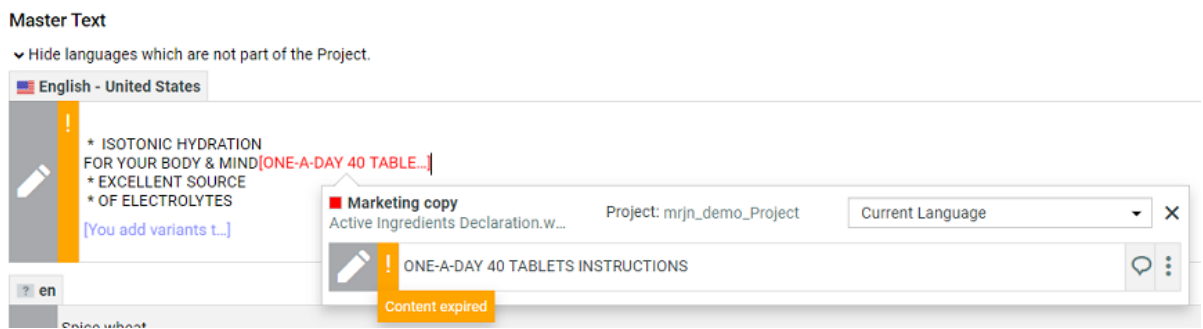
For example, let us assume there are three documents named Doc1, Doc2, Doc3 and Doc1 references Doc2 and Doc2 reference Doc3 .

In this case, Doc1 is considered as expired, if any of the documents out of Doc1, or Doc2, or Doc3 is expired.

26.2.5. 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		
		Warranty				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 445.

These are used when extracting Dynamic Content into WebCenter as well as exporting the artwork's GS1 XML.

26.2.6. 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*

26.2.7. 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.

To inherit content option for the text statements in your document, **Allow Inherit Content** option has to be chosen in the **Configure Content** in **Text Information**. When this option is enabled, you can choose to either follow the **Master Language** or **Default** to the element type choice or choose **None**.

You can choose

- **None** to follow language, but no language will be 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 447

- **Master Language** to follow the master language in the element widget.

Note: Irrespective of the option chosen at the content configuration, the user can still change the option at the element level.

26.2.8. 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.

26.2.9. 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® CS5, CS5.1, CS6 and CS7 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.
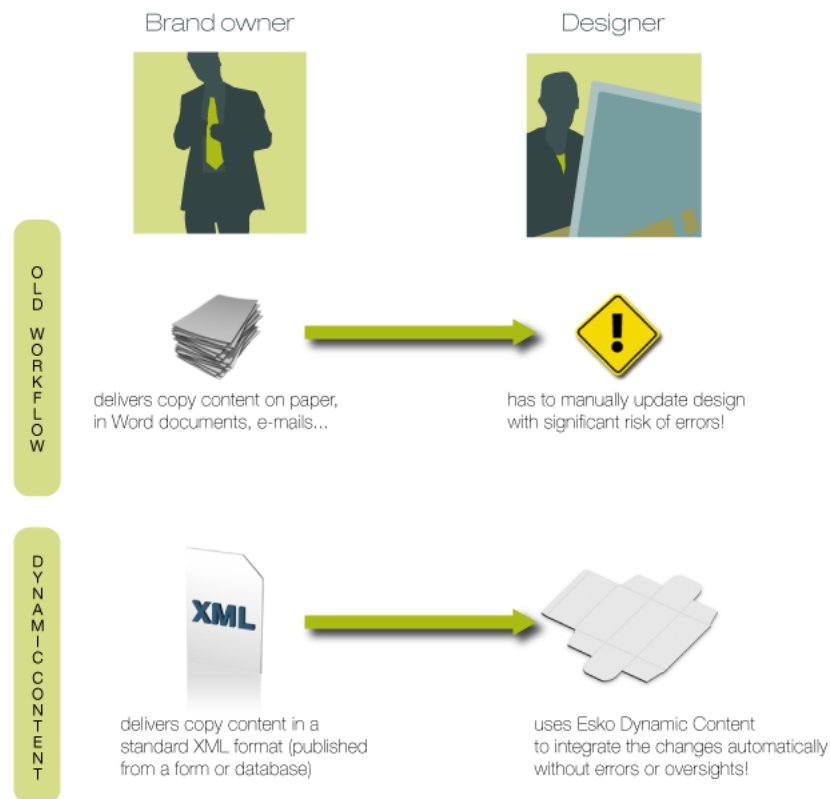
Benefits of Using Dynamic Content

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".

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 447

c) *Configure Text Reference Attributes* on page 447

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 470

26.3.1. Packaging Content Management

Note: You need the Packaging Content Management license to be able to use this module.

Smart Role Names for Editors and Approvers

To work with language specific *Smart Role Naming* on page 454 specify your:

• **Language Editor Role Prefix**/ **Language Editor Role Suffix**

• **Language Approver Role Prefix** /**Language Approver Role Suffix**

• **Add Language Role Prefix/ Add Language Role 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, values in **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 taken to calculate the role names for Editor, Approver Text Content and Add Language permissions.

A change in a Text document creates a new document version. To allow or prevent the users from creating new Revisions use the **Revision Raise** option:

Select **Raise revision when Master Text Contents are updated** to allow raising a Revision when master text is updated.

Select **Never raise revision** if master text changes should not be saved as a new Revision.

Note: This setting is independent of the **Allow raising Document Revision when uploading a new Document Version** setting.

Copy comments from a text document

Choose either to **Keep Comments** or **Remove comments if state reverted to Draft** or **Remove Comments always** when copying a document.

You can choose the option **Keep Comments** to copy all the comments when copying a document.

Comments are cleared if the state of the element is changed to draft, when the option **Remove Comments if state reverted to Draft** is chosen.

Similarly, all the comments in the elements are cleared while copying, when the option **Remove Comment always** is chosen.

Note: Same behavior is replicated in workflow when documents are copied using Copy/ Move Document. Move document option does not respect this setting.

26.3.2. 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) 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 455 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.

26.3.3. 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 336

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.

26.3.4. 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/pages/viewpage.action?spaceKey=KBAS&title=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 ℹ️

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 ℹ️
LANGUAGE_CODE	LANGUAGE_CODE	☐
DESCRIPTOR	DESCRIPTOR	☐
FLAG_FILENAME	FLAG_FILENAME	☐
LANGUAGE_INDEX	LANGUAGE_INDEX	☐
DIRECTION	DIRECTION	☐
FONT_FAMILY	FONT_FAMILY	☐

[**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**.
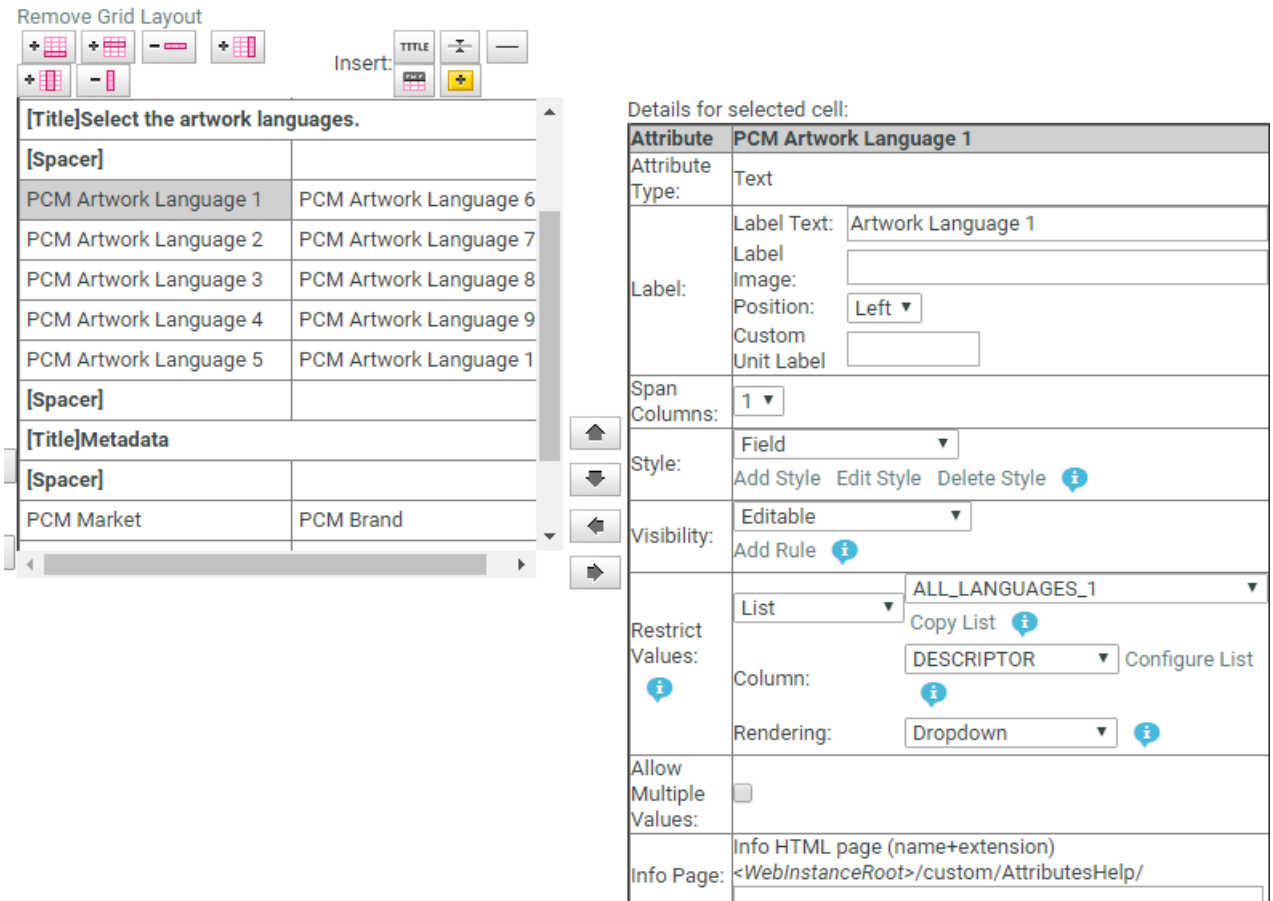
These attributes has to be added to the Project's or Templates **Attribute Category**. The User can then select the Master Language and Translation Languages according to that Project's needs.

26.3.5. 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:

- 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*.

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** > **Role Mapping**.

   When you click on a Text Content Document Type icon, the **Document Details** will have the **Text Information** tab with the following sub-tabs:

   • *Text Content*

   • *Role Mapping*

   • *Compare*

2. Click on **Manage Permissions**. This will open up the **Role Mapping** page.

3. Click **Add Permission**. Repeat this for as many permissions as you want.

Content	Role Mapping	Compare

Content has changed since last Save.   **Save**   **Cancel**

For each Content Permission, select the Language. If the '[ALL OTHER LANGUAGES]' option is selected under Language, SmartName is applied automatically to derive the Roles (if Role is not selected).
Click here to Manage Roles

Content Permission	Language	Role	
CONTENT MANAGER		PCM_CONTENT MANAGER	✕
EDITOR	[ALL OTHER LANGUAGES]	PCM_CONTENT MANAGER	✕
APPROVER	[ALL OTHER LANGUAGES]	PCM_CONTENT MANAGER	✕
ADD LANGUAGE	English - International	PCM_LEGAL	✕
ADD LANGUAGE	Dutch - Belgium	PCM_TECHNICAL	✕
ADD LANGUAGE	French - France	PCM_CONTENT MANAGER	✕

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 454. To do this for the editor permission:

   a) Make sure that the **Admin** preference section has the right Prefixes. Read *here*.

   b) Next to the **Editor** permission, select **All Other Languages**.

Prefix and Suffix in Role Names

7. Define the **Approver** permission and assign it to a role.

   Select **All Other languages** to create Approver roles with default names in one go.

   Note: You can configure Editors and Approvers individually for some languages and choose the Smart Role Naming for the rest of the languages by selecting **All Other languages**.

8. To edit Content Permissions, click **Manage Permissions** and edit or change the assignment of a permission.

   • The **Role Mapping** 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.

   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.

26.4.1. 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	👤 PCM 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
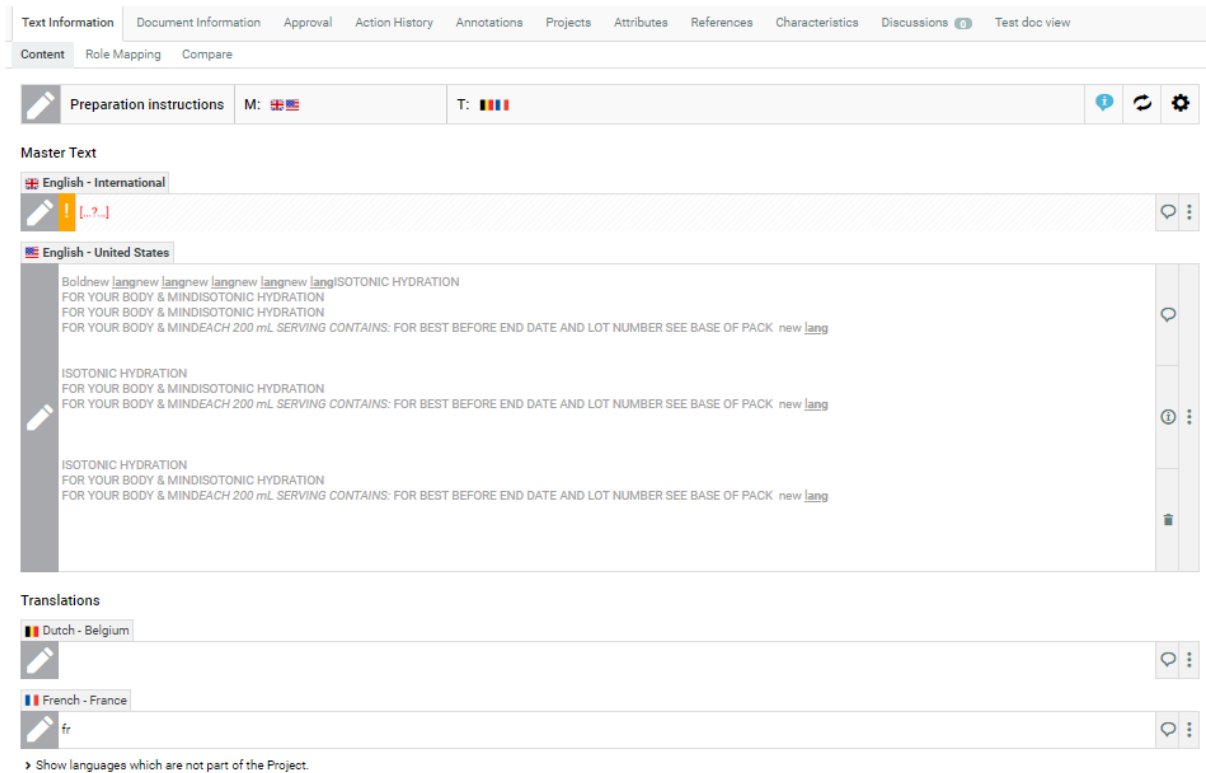
Prefix and Suffix in Role Names

The names of the Roles will have the specified **prefix** and **Suffix** (In the example screenshot, Language Editor) and the respective language code.

26.4.2. 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:

•   *Text Content*

•   *Role Mapping*

•   *Compare*

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.

26.6. Creating a Copy Sheet

Copy sheet is a term used to describe all the content together which will be 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 in: *Import Dynamic Text*.

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.

26.6.1. Create a Table Rendering for Text Documents

You can configure Text or Table Documents as document references and add them to a Project or Document Attribute category. The configuration and rendering are similar for Task Specifications.

To create a Copy Sheet using Text Document References, you can configure text related data to an advanced table rendering.

1. *Create a Table Rendering*.
2. In the **Edit Rendering Configuration** pop-up:

Specify...	The result in the rendering table will be...
Master Text	Master Text Statement in a text widget along with its content in the edit field and all related text content actions.
	Note: The **Visibility** should be specified as Editable if you want your users to edit the text.
Translation Text	Translation Text Statement(s) in widgets. One or more columns can be configured for the translations of the Master Text. The Master and Translation languages will also appear in a drop down.
Text Language Flags	The language drop downs for Master and Translation Text columns.
	Note: The master and translation languages are populated from the project attributes MASTER_TEXT_LANGUAGE and TRANSLATION_TEXT_LANGUAGE respectively.

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 will be 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 following:

- Document Name
- Master Text
- Translation Text
- 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.

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.

   • 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. Read more in:

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 **Reference** 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 will be reset to **Draft**.

If **Retain text document status** option is turned on, when you copy the document, the document's approval status will be 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 450.

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.

26.6.2. 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.

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 321.

26.6.3. Replace a Document Reference

You can configure a **Replace** option in your document reference table. When the user **replaces** the old reference, the new document reference will have the same **reference category** as the old one.

Note: Only users who are Project managers, Administrators or with Change Properties rights can replace the document reference.

When you configure a **Replace button**, it will allow the users:

- to replace the document via any of the configured *document sources* (**upload**, **browse**, etc.). If the user did not select any option, the first source will be taken as the default.
- to **Undo the action** before saving the new document reference.

This document will have its own **Attribute Category** but will keep the same **Reference Category** as the old reference.

26.6.4. Duplicate a Document Reference

You can configure a **Duplicate** option in your document reference table. 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.

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.

  Tip:
  * The document will be named as `[FileName] [Duplicate] [1]`, `[FileName] [Duplicate] [2]`, etc.
  * Use the **Rename** document action to change the document name.

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.

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.
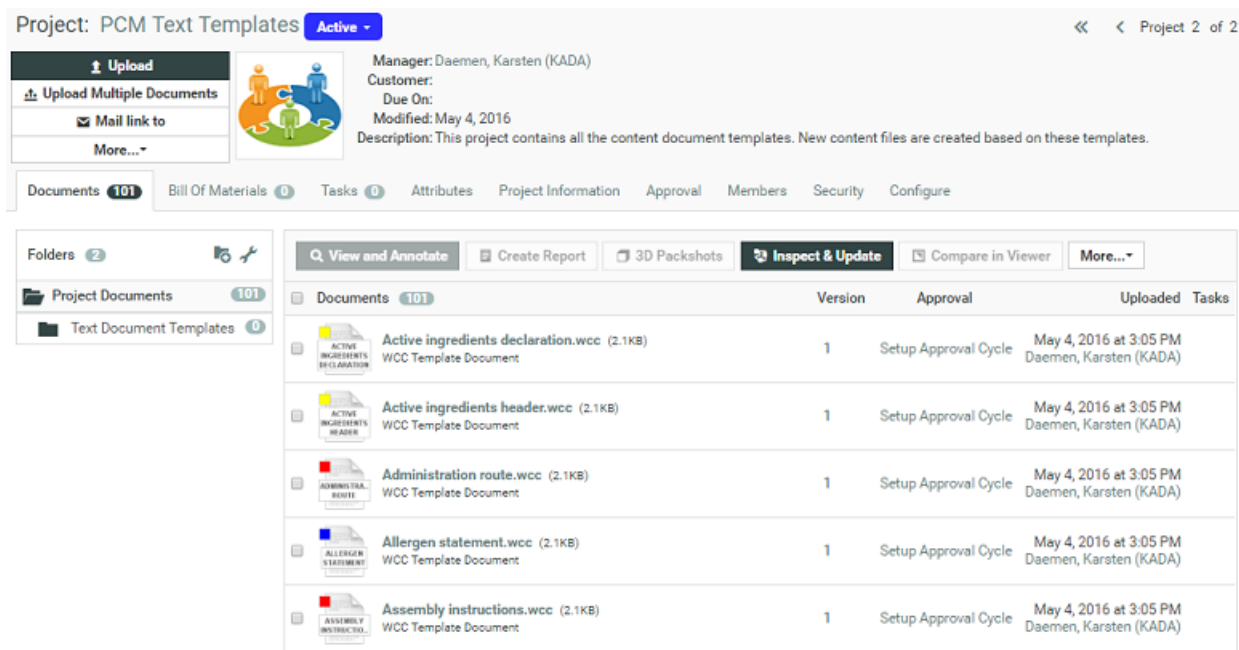
> **Note:** This is an example configuration. Other than the essential steps, all other steps meant as recommended, not mandatory.

> **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.

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 321

     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* 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*.
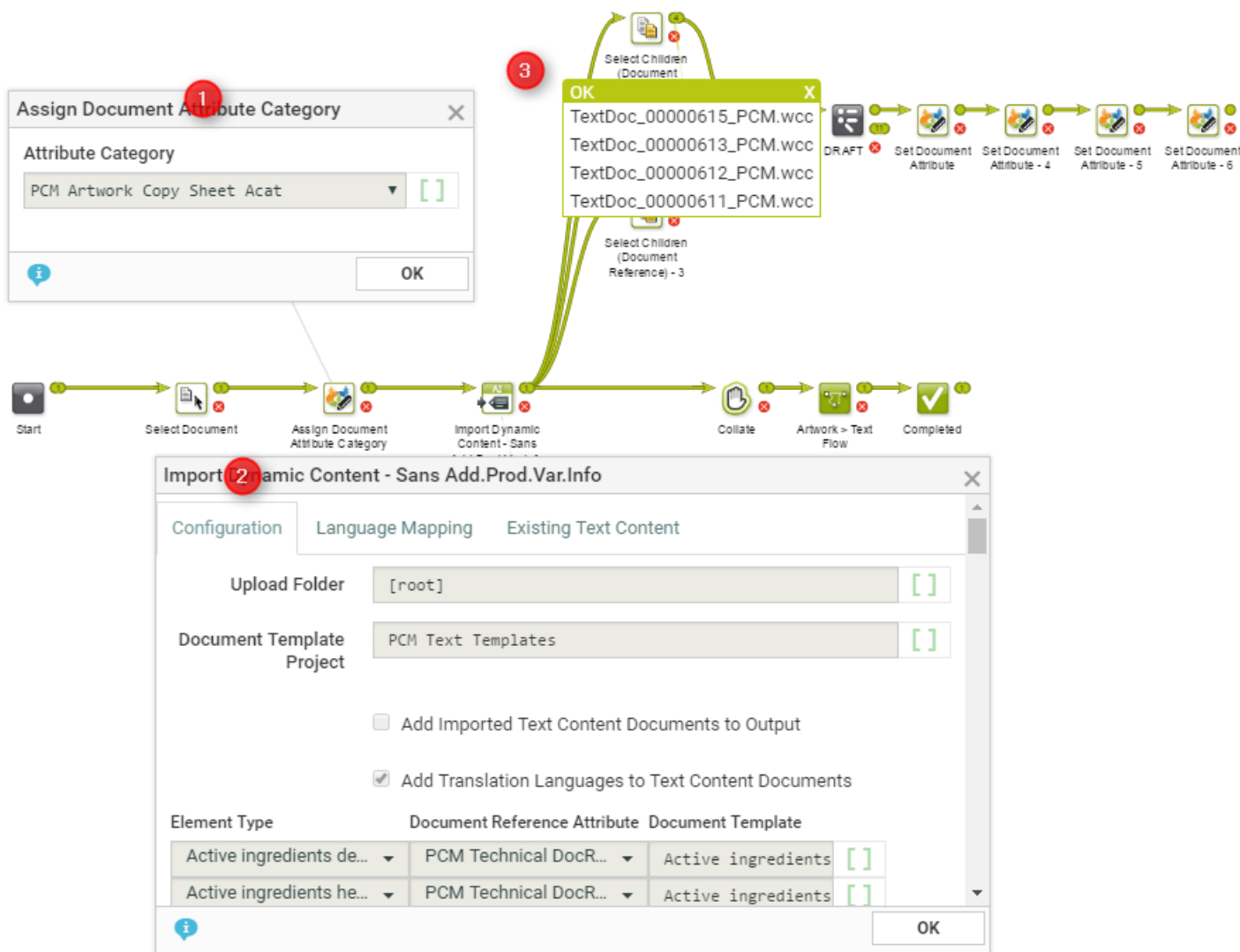
In the example, when an artwork with Dynamic Content arrives at a Packaging Content Management workflow, the following steps happen:

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 GS1 Format*. 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 450

   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` attribtues 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.

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.

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

27.1. Migrating Self-contained Data

From WebCenter 16 onwards, you do 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:

27.1.1. Exporting Templates or Projects

You can export Projects / Templates along with it's 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 478
- 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 480
- Tasks (Sequence, Icons, Assignees, Allowed Assignees) and Task Types: See also: *Migrating Task Types* on page 482

  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:

  - Autoname settings
  - Task settings
  - Attribute Category
- *Project Creation*: Creation form settings and Project Autoname settings
- *Document Creation* settings
- Document Sources (*Global Saved Searches*)
- Notifications
- Document templates

> **Note:** The library of templates should exist the target system.

- 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

27.1.2. 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:
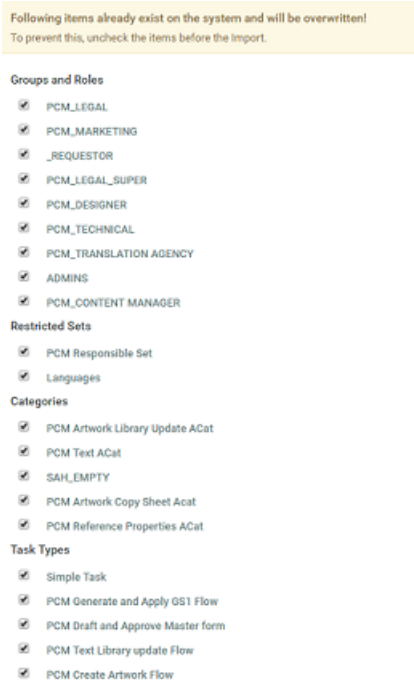
> **Tip:**
>
> The documents in the ZIP files will be imported by default.
>
> If you don't want to import the documents, disable **Import the Document(s) in the Project/ Template when importing Projects/Templates**.

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 User**name 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

27.1.3. 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 482

   Note: The Task Status will not get imported

Export of a Saved Search does not contain:

• Company and Location Visibility settings
• Project Status
• Characteristics
• Lists

Note: Text Document Search export will not include the Element Type and Language Lists.

27.1.4. 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.
- Characteristic: 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.

27.1.5. 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.

27.2. Migrating other Data

From WebCenter 16 onwards, you do can do self-contained migration of Projects / Templates and individually migrate items.

27.2.1. 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).

27.2.2. 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.

27.2.3. 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:

- Document Reference Attribute Values (Documents)
- Lists

> **Tip:** Export your Lists before the export of the Categories.

- **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>12</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 don't want to import and click **Import**.

27.2.4. 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

  Export / Import of Task Types does not contain:

  - Document Reference Values (Documents)

- 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 contents are shown. You have the option to overwrite the existing contents or uncheck the contents 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** has to be specified. Click **OK** for one of the option.

f) On completion of import, WebCenter shows the list of all contents updated and newly created with warnings.

27.2.5. 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.

28. Getting a list of existing projects

standard duckling

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=YWJjZGVm&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=YWJjZGVm&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 486
 <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>
```