1. Introduction

This document gives an overview of the new features and changes in WebCenter 18.1. It only covers the changes since WebCenter 18.0.1

If you are updating from a version before WebCenter 18.0.1, we advise that you read the release notes of all versions between your current version and WebCenter 18.1. You can find these on the documentation page of WebCenter: https://www.esko.com/en/Support/Product?id=WebCenter

For System Requirements, see: WebCenter system requirements - Product overview page.

1.1 Highlights of the 18.1 Release

WebCenter 18.1 is a major release of the WebCenter platform. Note that the availability of some features are dependent on specific product licenses.

Social Media inspired UI/UX
To ease user adaption, a list of UI/UX improvements has been added to this release.
- Project Dashboards allows for configuring a project view that is optimized for a specific group of users.
- A new ToDo Feed section for the My Work dashboard shows the users pending actions in an attractive and easy to interpret way that can be optimized to show exactly the necessary information.
- The highly improved Dashboard Framework eases building and maintenance of dashboards.
- Further improvements to the new Discussions module introduced in WebCenter 18.0 add more flexibility and value to this already powerful functionality.

3D and Packshots
New and unique functionality allows create high-quality 3D and Packshots directly from WebCenter web interface.
- Combine Collada structure and PDF graphics into attractive 3D directly in the Viewer.
- Preview advanced print effects in 3D without a structure with the new “2.5D” functionality.
- Bulk-creation of Packshots (option) is made possible directly from the web GUI.

Search based KPI reporting
With several valuable additions, the WebCenter Search framework is more powerful than ever.
- Approval Search provides a flexible view into project approval state.
- The flexible Search Result Formatting framework makes it simple to present result data in an attractive and clearly communicating form.
- Duration Search offers highly increased insight into duration of tasks, approvals and project phases.

Packaging Content Management
The WebCenter packaging content management module has been extended with a list of valuable features.
- Automatically inherit content from one language to another.
- Bulk update of packaging components from with a form.
- Compare two versions of a text statement
And more

- The WebCenter Viewer is extended with new **Browse** functionality - significantly easing the task of comparing different assets.
- **Text Inspection** of live PDF text directly in the Viewer makes font checking much faster.
- Large **Document Previews** in email notification make the communication to end-users clearer and more attractive.
- Several **Workflow** enhancements make WebCenter automation more powerful and scalable.
- A new **Project Creator** user type offers more flexible, and cost-efficient allocation of users.
- Structural design users will benefit from improvements to **Calculated Attributes** and **Run Standard** functionality.
- Optimized delivery of CSS and JavaScript components to the browser makes the end-user experience better than ever.
- An updated **Server Platform** provides a solid and secure foundation for delivering high-availability services to a growing user community.
WebCenter 18.1 Release Notes

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3. Release Content

The Esko Software Suite for WebCenter 18.1 contains:

- Platform 18.1 (April 2019) WebCenter DVD that includes WebCenter 18.1 and ArtiosCAD 18.0.1 Enterprise installer
- Platform 18 (March 2018) Engines Software Installation DVD with Automation Engine 18.1 or later.
- WebCenter Release Notes (this document; also present on the installation DVD)
- ArtiosCAD Enterprise and WebCenter Documentation (PDF format)

1) An update to ArtiosCAD 18.0.1 Enterprise build 1184 or later is mandatory for WebCenter 18.1 (on the application server only).
2) An update of the License Manager (installed from the ArtiosCAD installer) is mandatory when updating from WebCenter 18.0.1 or older.
3) Installation of boards and ArtiosCAD defaults is mandatory to work correctly with CAD documents in WebCenter.
4. Licensing and IT Requirements

4.1 Licensing
WebCenter 18.1 requires the WebCenter 18.1 licenses. You need to install the new ArtiosCAD 18.0.1 and the new License servers, local License Manager and Network License Manager.
See Flexible Named User Licensing for functional change on the licensing.

4.2 IT Requirements
The responsive WebCenter UI is optimized to work on the latest generation of all major browsers (mobile and desktop): Internet Explorer, Edge, Chrome, Firefox, and Safari. Internet Explorer 10 and older are not supported for use with WebCenter 18.1.


5. Knowledge Base
You can use the Esko Knowledge Base to find articles containing tips & tricks to Esko related products.


All articles related to WebCenter:
To limit your search, edit the Knowledge Base Search field to contain both WebCenter and your own criteria. The special keywords AND and OR can be used with brackets and wildcard characters (? and *) to refine the search.
6. New and changed features in WebCenter 18.1

6.1 Project Creator User Type

We introduce a new kind of user type: Project Creator user. This user can create new projects but cannot manage them. This user type is similar to Project Manager type, with the only difference that the Project Creator user loses the rights after he created the project. A user cannot be both Project Manager and Project creator at the same time.

When WebCenter is running under the Named User License model, there will be a dedicated license 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.

6.1.1 Project Creator with full/limited visibility

Similar as to Project Managers, a Project Creator user can have full visibility or limited visibility. When creating a Project Creator with limited visibility, the list of groups/users, company and locations is limited to fit the user’s visibility scope. Setting limited visibility for Project Creator has the same effect as the limited visibility for Project Managers.

6.1.2 Project Creator creating Projects

When a project creator user logs in, he will get the menu items that allow creating a new project. You can select to start from blank project or from a template. The option to create from existing project is not available for project creators.

When the user creates a project from a template, the user will get the project creation form with all the regular functionality, such as attribute view, role assignment, invite members, upload documents. This functionality is exactly the same as a project manager, except that the project creator cannot become the new project’s Project manager. The project creator can select a visible group or another active user with PM rights.

Once the project is created, the project creator user will have access to the project either
- if assigned to the _Requestor role,
- is invited as a member to the project.

This functionality is also supported by the regular Project Creation SDK call.

When the project is created, WebCenter keeps track of the person who created the project. If the user was working on behalf of another user (delegation), we also keep track of the person for whom the user was doing the work.

6.1.3 Search for Project Creator

The Search has been extended so that the Project Creator field is fully supported.

6.1.4 Project Creator specific Configuration

The menu builder has been extended to allow menu and action item configuration based on whether the user is a project creator or not.

6.1.5 Select Manager during Project Creation

Because of the changes done to the project manager selection for Project Creators, the project manager selection for project managers has also changed: during project creation, the project manager can be set to the current user (when the user is a PM), one of the groups the user is in (when the user is a PM), any visible group or any active Project manager user.

The project creator will only have the options any visible group or any active Project manager user.

6.1.6 Salesperson is Project Creator

On the Project Creation setup page, an admin user can specify whether the Salesperson is set to the Project Creator after the project was created. If the admin user enables the option, the Project Creator is also the Salesperson for the newly created project.
6.1.7 Workflow support for Project Creator
The workflow offers support for the Project Creator: in the task node, the Project Creator can be selected as task assignee in the Role field.

6.2 Flexible Named User Licensing
In WebCenter 18.1, Project Creator licenses (see [Project Creator User Type](#)) can be used for Regular Users. When the system has only Admin/PM Licenses and Project Creator Licenses, the Project Creator Licenses can be used for both the regular users and the project creator users. This will be reflected in the License overview GUI where the Project Creator License and the Regular User license are combined into one row.

6.3 Search Improvements

6.3.1 Search Results Formatting
In WebCenter 18.1 we introduced Search Results Formatting. This allows styling search result values (cells) or rows, grid entries or cards based on certain rules.
On a search setup page (Project Search, Document Search, Task and Approval Search), Administrators can setup Search Results Formatting by clicking on the link “Search Results formatting”. This opens a popup with two tabs: Fields and Row/Card. Each tab allows to setup rules for when to apply search results formatting to a row/card (Row/Card) or individual cells (Fields).

### 6.3.1.1 Rules

For both the tabs, Fields and Row/Card, rules can be added by clicking the Add Rule button. This adds a row to the table and allows selecting:
- A Condition
- An Operator
- A Value
- A Style
- (only for Fields tab) The Apply to Fields

The first 3 columns determine the rule for when the styling (the 4th) column should be applied. The 5th column (Apply to Fields – only available for Fields) determines which cell of the row should be styled.

Rules can be re-ordered by drag-and-drop and determines which rule gets priority:
- For Fields: the first rule that is met per field is applied.
- For Row/Card: the first rule that matches is applied for the row/card.

Rules are executed on the search results value as you see them in the search results page (if you make the column visible):
- For rich text the stripped value is taken (all html tags removed).
- For Roles (role in a project search or task assignee), the role name and all assignees (users, groups + group representative) are individually checked (each rule applied).
- For multi-value attributes or e.g. multiple project names in case of linked documents, each value is individually checked (each rule applied).

Rules can be deleted by using the Delete Row button of the respective row.

Known limitation: in Text Content Search, “Element Type” is currently not available for conditional formatting.

**Condition**

This searchable dropdown contains fields for the current search context. This means for example that for project searches, the list will contain the Project Status; while for task searches, this will contain the Task Status.

**Operator/Value**

The type of the field selected in Condition determines which operators and values can be selected:

For example, for type “text” (e.g. Project Description) the operators are:

- **Is empty**: the search result value of the selected condition field has no value
- **Is not empty**: the search result value of the selected condition field has a value
- **Is equal to**: the search result value of the selected condition field is equal to the given value
- **Is not equal to**: the search result value of the selected condition field is not equal to the given value
- **Contains (default)**: the search result value of the selected condition field is a substring of the given value
- **Does not contain**: the search result value of the selected condition field is not a substring of the given value
- **Matches regex**: the search result value of the selected condition field matches the given (java) regex in value
- **Does not match regex**: the search result value of the selected condition field does not match the given (java) regex in value
- **Begins with**: the search result value of the selected condition field begins with the given value
- **Ends with**: the search result value of the selected condition field ends with the given value

All checking is done case sensitive.

For the “is empty”/“is not empty” operators, the value is not available. Otherwise a searchable dropdown becomes visible to allow selecting another “text” field. This means that a field with type “text” can only be compared to another field of the type “text”, so not with a field of the type “float”. You can switch between comparing to a fixed text and another field by using the button next to the input field.

For type “date” (e.g. Project Due Date) the operators are:

- **Is empty**: see text
- **Is not empty**: see text
- **Is before**: the search result value of the selected condition field is before (date and time) the given value
- **Is after (default)**: the search result value of the selected condition field is after (date and time) the given value
- **Is date before**: the search result value of the selected condition field is before (date only) the given value
- **Is date after**: the search result value of the selected condition field is after (date only) the given value

For “date” types, the list of date values also contains “Now” representing the current date and time. For dates, you can also specify an offset (+ or -) in days and hours. The calculations happen in working days.

For the type “enum” (e.g. Project Status) the operators are:

- **Is empty**: see text
- **Is not empty**: see text
- **Is (default):** the search result value of the selected condition field is equal to the given value
- **Is not:** the search result value of the selected condition field is not equal to the given value

An “enum” value can be selected from a dropdown with the available values of the field. For example, for project status, this contains all project statuses, for restricted set attributes, this is the list of restricted set values.

For the type “integer” (e.g. An Integer Project Attribute) the operators are:
  - **Is empty:** see text
  - **Is not empty:** see text
  - **Is smaller than:** the search result value of the select condition field is smaller than the given value (exclusive)
  - **Is smaller than or equal to:** the search result value of the select condition field is smaller or equal than the given value (inclusive)
  - **Is equal to:** the search result value of the select condition field is equal to the given value.
  - **Is larger than (default):** the search result value of the select condition field is larger than the given value (exclusive)
  - **Is larger than or equal to:** the search result value of the select condition field is larger or equal than the given value (inclusive)

Similar as for text, you can switch between comparing to a fixed number and another field by using the button next to the input field.

For the type “float” (e.g. A Float Project Attribute) the operators are:
  - **Is empty:** see text
  - **Is not empty:** see text
  - **Is smaller than:** the search result value of the select condition field is smaller than the given value (exclusive)
  - **Is smaller than or equal to:** the search result value of the select condition field is smaller or equal than the given value (inclusive)
  - **Is equal to:** the search result value of the select condition field is equal to the given value.
  - **Is larger than (default):** the search result value of the select condition field is larger than the given value (exclusive)
  - **Is larger than or equal to:** the search result value of the select condition field is larger or equal than the given value (inclusive)

Similar as for text, you can switch between comparing to a fixed number and another field by using the button next to the input field. Float has some subtypes for the different attribute units. That means that you for example can only compare Distance with Distance attributes and Area with Area attributes but not Area with Distance attributes.
6.3.1.2 Styles

The Style column contains a searchable dropdown with the available styles. Each tab (Fields vs Row/Card) has its own list of styles. The dropdown shows the label (if there is any) or otherwise the name of the style with a preview of how the style looks. You can search on both a label or style name.

A new style can be created by clicking the Create New Style button. Clicking the Create New Style button opens a popup and allows specifying the style properties:

- **Style Name**: a required field by default filled in with the next unique name suggestion “Style x” where x is 1,2,3,.. This is a recognizable name where you can search on in the dropdown. If the Style name is not unique an error message is shown when clicking OK.
- **Background Color**: a hex color specifying the background color of the row/cell. There is also a color picker available.
- **Use Background Color Label (Only for Fields)**: a checkbox indicating (if checked) to use a background color label (similar to project status color label) instead of coloring the whole background (checkbox false).
- **Text Color**: a hex color specifying the text color of the row/cell. There is also a color picker available.
- **Border Style**: a dropdown with No Border (default), Left Border or Right Border adding respectively No Border, a Left Border or a Right Border to the row/cell.
- **Border Color**: a hex color specifying the border color of the row/cell. There is also a color picker available. This field is only shown if Border Style is Left Border or Right Border.
- **Display Style (Only for Fields):** a dropdown with
  - Icon Only: Only the icon specified by Icon replacing the real value is shown
  - Both Icon and Label (default): Both the icon specified by Icon (if any) and the Label (if any – otherwise the real value) are shown.
  - Label Only: Only the label specified by Label (if any – otherwise the real value) are shown.

- **Label (Only for Fields):** a label overwriting the real value of the cell if the condition is met. This field is only shown if Display Style is Both Icon and Label or Label Only.

- **Icon (Only for Fields):** a searchable dropdown with all the Glyph Icons and Image Icons. By default, it shows the first 10 icons for each category but there is a Load more results option to show all the other icons of the same category. For the image icons, there is also an Upload New Icon button. On clicking it opens a new popup where you can select a new image. You can cancel the upload or an Upload button to upload the selected image with cancel button. You can only upload images of the supported image extensions (jpg, jpeg, gif, png and bmp) or else an error message is shown.
  The icon field is only visible if Display Style is Icon Only or Both Icon and Label. The field also has a clear button to no longer select an icon.

- **Icon Color (Only for Fields):** a hex color specifying the color of the glyph icon selected in Icon. There is also a color picker available. This field is only shown if Icon is shown and you selected a glyph icon.

- **Icon Size (Only for Fields):** a dropdown with options Normal (default) and Large showing the glyph icon respectively in 16px or 32px font size. This field is only shown if Icon is shown and you selected a glyph icon.

- **Preview:** this shows a preview of how the style would look (with borders, text color, background colors. If a label is set, then it is shown, or else the style name is shown (except for Icon Only). The preview updates whenever you change something to the style setup.

Styles are only available per (saved) search, but styles can be imported from another saved search by clicking the Import Styles button.

A selected style can be edited by clicking the pencil icon next to the style. This opens the same popup as when creating a new style with the existing properties filled in and applied. There are also two extra buttons available:

- **Delete:** this deletes the style from the list of available styles. A warning message is shown first. If the style was selected, the style field is cleared.

- **Save as New Style:** You can click the Save as New Style button to make a copy of this existing style. The (new) style name must be unique, otherwise an error is shown.

The style of a cell gets priority over a style applied to the row. For example, if you set a background color on the row and you set a background color on a cell of that row, the cell background color is shown for that cell. The row background color is shown for the other cells (unless they have their own style defined).

For Task Due Date, there was already ‘built-in’ coloring done. If no cell or row rule with a text color is set affecting the task due date cell, the “old” task due date coloring is used; otherwise the search results formatting as setup is applied.

### 6.3.1.3 Apply to Fields

This column only available on the Fields tab contains a searchable dropdown with all the visible/available fields of the search setup page. Multiple fields can be selected and determines which cells to style with the selected style when the condition is met.
6.3.2 Approval Search

Approval Search allows you to search on approvals. You can find approvals assigned to certain people, search on the status (approved, rejected, pending), search on project information and even search on document attributes. You can show facet graphs on assignee, status, reasons for rejection fields. As with any search you can export to Excel, use the search in a project context or make a section on the My Work page.

6.3.2.1 Concept

In WebCenter 18.1, we introduced Approval Search. In the Search menu we now have “Tasks and Approvals” instead of “Tasks”. This means we can search for both approvals and tasks in a single search. In the following table, we can see the list of the fields on which we can search and for each field we indicate whether it’s applicable for Tasks, for Approvals or for both.

<table>
<thead>
<tr>
<th>Search Field Name</th>
<th>Task</th>
<th>Approval</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Task Description</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Task Type Description</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Started</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Due</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Completed</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Estimated</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Modified</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Task Created</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Created by</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed by</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Assigned to</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>
In the Search Results page, for each approver in an approval stage or has completed an approval a row is displayed. In the example below, for the document GET_SET_BOTTLE_GREEN.pdf we have one stage with two people that need to approve, so in the result page we have two rows.

If there are multiple stages in an approval, then for each stage and for each person involved in a stage, there will be a row in the result page. See the example below.
The thumbnail for an approval “Task” is the document version.

The name of an approval “Task” is a combination of the document name, the version number, the stage name and the assignee.

For Example: “My Document (1) - Stage1 - BOB” or “My Document (1) - BOB” (if no stage name). This field is always shown in the result page.

Combining both Approvals and Tasks in one search has the additional advantage that next to combined reporting, you can now also use search to build a combined To-do-list.
6.3.2.2 Special fields

Type:

Since Tasks and Approvals are now part of the same search, we changed the Task Type filter to be generic. It can now be used to search for approvals, manual tasks, or workflow tasks. It is still possible to search only on tasks of a specific task type. You can now search on multiple tasks or approvals by simply selecting them.

Status:

An approval can have 10 different statuses:

- Approved: The assignee approved
- Rejected: The assignee rejected
- Force rejected: The assignee force rejected the stage
- Force approved: The assignee force approved the stage
- Approved with a condition: The assignee approved the stage with a condition
- Forced approved with a condition: The assignee force approved the stage with a condition
- Pending: We are waiting for the assignee to approve/reject
- Stopped: The stage has been stopped and the approval was not completed
- Not started: The stage is not started
- Canceled: The approval cannot be completed anymore. This happens when the approval was pending but one of the following happened before the user could complete the approval:
  - a new version of the document was uploaded
  - one approver in the stage rejected and the other approvers cannot approve anymore
  - someone force approved or force rejected the stage
For page list document, only the global status for one approver is shown. For example, if some pages of the page list were approved and some are still pending, then the approval status will be pending.

Since you can now Search for Approvals and Tasks in the same search, the “status” filter now contains the options for both. The filter on status allows you to search on a specific approval status, a specific task status or a combination of these. There are some preset combined statuses: All Completed, All Not Completed, All Not Started, All Pending/In Progress, All Approved Approvals, All Rejected Approvals.

See also “Search multi-select dropdown filter” below.

Assignee:
The assignee of an approval can be a user, a group or a role. For “All of” the group or role will be expanded once the approval stage starts and there will be a row in the search results for each member.

In the assignee field, it is described who need to approve and the type of approval (all of, one of, all of role one per group). It’s also indicated if the approval was done as a part of group or role.

For example: the user CADX needs to approve as he is part of the group ADMINS and all the user of this group needs to approve.

If the assignee is a role, we show the role and below its assignees (the same behavior that for tasks).
6.3.3 Pending Approvers in Document Search

A new field is introduced in Document Search namely Pending Approvers. When a document has an ongoing approval cycle or stage, the approvers that who are yet to approve are shown in the “Pending Approvers” column. It's possible to facet, filter and sort on this field. The pending approvers will be shown in a similar way as the Assignee column in “Task and Approval Search” (including “One of”/“All of” and the original group/role). For Administrator users, there is a configurable option to show/not show approver details (original Group/Role).

6.3.4 Search on Duration KPI metrics

We have introduced Duration metrics on the data in WebCenter. For each project, project stage, task, document, you can search on start date, due date, completed date and on the duration and Time Left.

6.3.4.1 Project Duration metrics

For a project, we have following KPI metrics:

- Start date: this is the first time the project went into an active state
- Due date: due date of the project
- Completion date: the last time the project was set in a completed date
- Duration: the time the project spent in an active status.
  When the project is not completed yet, this is the time from the start date until the current time
- Time Left: the time that is still left until we reach the due date. When the project is completed, it is the time between the completion date and the due date. When the project was finished before the due date, the Time Left is a positive number. When the project was finished after the due date, the Time Left is a negative number, expressing how many days the project was overdue.
  When the project is not completed, this is the time between the current time and the due date.
Project Stage Duration metrics
We support Duration metrics on the time a project spent in a given stage, i.e. the project was in the given status.
For each stage, we have following duration KPI:
- Start date: this is the first time the project went into the given status
- Due date: due date of the stage. Attributes can be used to define the project status due date in the Project configuration – Project Status tab. If the attribute is set and has a value, this value will be the due date of the project status.
- Completion date: the last time the project was in the given status
- Duration: the time (duration) in days the project spent in the given status
  When the project is still in the given status, the duration is the time the project entered the status, until the current time
- Time Left: the time that is still left until we reach the due date. When the project stage is completed, it is the time between the completion date and the due date. When the project stage was finished before the due date, the Time Left is a positive number. When the project was finished after the due date, the Time Left is a negative number, expressing how many days the project stage was overdue.
  When the project stage is not completed, this is the time between the current time and the due date.
Note: it could be that a project goes into a status multiple times. In this case, the duration is the total time the project spent in the given status.

6.3.4.2 Document Duration metrics
For a document, the duration metrics are related to the approval cycle on the document. Only when you have an approval cycle on the document, the duration metrics become relevant.
- Start date: start date of the approval cycle of the document
- Due date: due date of the approval cycle of the document
- Completion date: time the document reached an approved status
- Duration: the time (duration) between the start date and the completion date.
  When the document is not approved yet, this is the time from the start date until the current time.
- Time Left: the time in days that is still left until we reach the due date. When the document is approved, it is the time between the completion date and the due date. When the document was approved before the due date, the Time Left is a positive number. When the document was approved after the due date, the Time Left is a negative number, expressing how many days the approval was overdue.
  When the document is not approved, this is the time between the current time and the due date.

6.3.4.3 Manual/workflow Task Duration metrics
For a task, we have following KPI metrics:
- Start date: start date of the task
- Due date: due date of the task
- Completion date: time the task 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 date and the completion date. When the task is not completed, this is the time between the due date and the completion date.
  A positive number means that the due date is not reached yet. A negative number means that the task is overdue.

6.3.4.4 Approval Task Duration metrics
An approval task corresponds with an approval that has been assigned to a user/group. For the approval task, we have following KPI metrics:
- Start date: start date of the corresponding approval stage
- Due date: due date of the corresponding approval stage
- Completion date: time the user submitted a non-pending approval status
• 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 date and the completion date. When the task is not completed, this is the time between the due date and the completion date. A positive number means that the due date is not reached yet. A negative number means that the task is overdue.

Note: In the duration calculation, the weekend days (Saturday and Sunday) are not considered. When the setting to take Friday/Saturday as weekend date is switched on (see Custom Weekend Settings), the duration and time left will take Friday/Saturday as weekend days.

Below is an example with column and faceting on duration for Approval “Tasks”. Conditional formatting was used to configure the duration column to have the same colors as the facet.

6.3.5 Search multi-select dropdown filter
A new search filter that allows selecting multiple options from a dropdown is introduced. The dropdown allows switching to a text mode where the user can type to search. It’s possible to change between the 2 modes with the button.
- The first mode is a multiple choices dropdown. You can select multiple elements in the list to filter on it. The list can contain some sections (in the image below: “Manual Task Types” and “Workflow Task Type”).
It’s also possible to do a search to find a value (see example below).

- The second mode is the classic text search in WebCenter with words, *, ?, “,”, and logical operations (OR, NOT, AND)

6.3.6 Delegate in search

Any action done as delegate of another person is shown in the corresponding field in search. For example, in the field “created by” for a task search.

6.3.7 Available columns in Search Results

There is a new “Available” column in Search. Earlier, making a column visible was only possible from the Search Setup page. In the Search Results there was no option to show more information if you wanted.

With the “Available” columns this is now possible. An administrator can make columns on the Search Setup “Available” which the user can then show/hide from the Search Results page. An Administer can set up “Available columns” by checking the “Search Panel Design” checkbox on the setup page.

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.

**6.3.7.1 “Link visibility of Available filters and columns”**
Both design panel items and columns can be made “Available”.

By default, these concepts are separate, if the user makes a column visible or hidden that will not cause any changes to design panel. Only a new column will appear. In the layout options however, a new option “Link visibility of Available filters and columns” has been added. Enabling the option link the visibility of the design panel and the columns to have 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. Example: The Administrator sets up “Project Status” to be “Available” in the design panel and sets up the “Project Status” column as “Available”. If a user then runs this search and picks the “Project Status” column to be visible, the design panel item for “Project Status” will also appear. Similarly hiding one of them will lead both to be hidden.

To enable this option select the “Search Panel Design” checkbox in the search setup page.

**6.3.7.2 Hiding Design Panel items**
A related small new improvement is that it is now possible to hide an “Available” design panel item again from the search results page after it was added.
6.3.8 Improved Grid Layouts

The Grid layouts for search results has been improved. For both project and document searches there are two types of grid layouts. The user can choose which one he wants to see in his preferences.

Show in Grid 24 Items

The grid layouts now adapts to fit the size of your screen automatically showing the columns as needed.

For example, in project search with the thumbnails shown on the left, it can look like:

A project search with thumbnails on top:

Thumbnails are bigger when shown on top.
6.3.9 Project Search Card Layout
Card layout is now available for Project Searches.

6.3.10 New Search Fields

6.3.10.1 Document Approval Status & Completed Date
In WebCenter 18.1 we split the Approval Status and Completed Date field.

**Before:**

<table>
<thead>
<tr>
<th>Approval Status</th>
<th></th>
</tr>
</thead>
</table>

**After:**

<table>
<thead>
<tr>
<th>Approval Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval Completed Date</td>
<td></td>
</tr>
</tbody>
</table>

This means in practice, Approval Completed date can now be made visible as a column, used for sorting, put in the design panel and used for faceting.

Note: when the Approval Status field was used in the design panel of a saved search both fields will be visible in the design panel after upgrading to 18.1.
Next to that we now have more options for filtering on the Approval Status field:

![Approval Status Filter](image)

Additional options “Not Started”, “Waiting for Workflow” and “No Approval Setup Defined” are added. The dropdown is changed allowing the user to select multiple items, for details see: “Search multi-select dropdown filter”.

### 6.3.10.2 Folder search field

You can search and display the folder where a document resides. The folders can be facetted in three ways, namely:

1. **Grouped by Folder Name**
   - When searching the system for documents, you can group all the folders by name when you facet on the results.

2. **Individual Folders**
   - When searching the system for documents, you can have the folders shown individual 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.

3. **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. All the folders are listed, even when they are empty, and the ordering is the same as on the project documents page.

### 6.3.10.3 Tasks and Approvals Search Fields

As part of Approval Search some new fields are introduced:

- Approval Master
- Stage Name
- Stage Approval Status
- Final Approval Status
6.3.10.4 Reference and Reference by

The "Reference" field replaces the previous Document Reference field. Just like in the previous version, this field can be used to search for all the Documents that are referencing the Document(s) in the field.

The "Reference by" field is a newly introduced search field in WebCenter 18.1. This field can be used to find all the documents that are referenced from within the Document(s) in the field. This field is only available in Document Searches.

Both of the fields support the following modes:
- Select/Matches: this will find all the "direct document" references
- Select/Matches (any level): this will find all the references to the document on any level (see example below for more information). These modes are only available in Document Searches.

To make the results returned from the fields a bit clearer let’s assume the following situation:

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

Reference
- Select “Doc1” this will return: Doc2.
- Select (any level) “Doc1” this 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.

Notes:
- 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” criteria, 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.

6.3.11 New Document Action Buttons: Approve, Reject, Comment

In Document Search Results page, we added three new individual actions. If you have the necessary permissions, you can approve, reject or comment a document in the search result page. These actions will appear when you go over the document row or block.

When you click on one of these actions a popup will appear to propose you to approve (with or without condition), reject (with or without reason for rejection) or comment.
This new functionality can be used if the security preference is enabled to allow Approval outside the Viewer.

This feature is also available in the Tasks and Approvals search result page, the other documents actions are also available but are deactivated by default. These document actions are only available for approvals and apply to the document on which the approval is set.

Ann Admin User can configure which actions are enabled in the Documents or Tasks and Approvals Result Page. To specify this, you should open Result Layout Options section of the corresponding Search Setup page (using Show Result Layout Options link).
6.3.12 Search Setup Dashboard Builder Improvements

6.3.12.1 Live Search Setup Dashboard Builder

When you configure a Dashboard from the Search Setup, a live preview of the search results is shown while you are editing the dashboard. Blocks show real data while editing. This makes it a lot easier to set up searches with dashboards.

Note that the live search dashboard builder does not consider the user preferences for “show thumbnails” and “results style (list/grid/card)”. It always opens in “list” view with thumbnails enabled unless you configure the search itself (layout options) to have a different default layout or thumbnails.

When SmartNames are enabled simple placeholders are shown instead of live preview.
6.3.12.2 More Search Dashboard Builder UX changes

Search dashboard has been improved and clear icons are shown for all blocks. Furthermore, it is now possible to add any type of graph directly from the gallery.

Some UX changes were also done to the configuration of facet blocks. It is now possible to change the type of a facet block after it is already configured. For example, you can now switch from a “facet list” to a “pie chart” without having to reconfigure the block completely.
6.3.13 Smaller UX Changes

6.3.13.1 Checkboxes are hidden if not relevant

Checkboxes to select an item in search is hidden if they are not relevant. This will simplify the view a bit in such a case:

Note: checkboxes will also be hidden if there are actions, but all the actions have the “max selection” option in the menu builder set to 0.
6.3.13.2 Actions which do not require selection are also shown if there are no results
With customization of the menu you have custom actions in your search which adds new items. These actions can be executed even if the search does not find any results. Previously actions which did not require selection were not shown if the search did not find any results, this is changed now.

6.3.13.3 Type in footer to go to page
Like some other pages, search now supports typing the page number in the footer to go to a specific page.

6.3.13.4 Pager hidden if not applicable
When there is only one page to show, the pager is no longer shown.

6.3.14 Search Setup UX Changes
The Search Setup page has a lot more options if you are an Administrator user. For 18.1 we did some small improvements to how the options are shown which should make it a bit nicer to set up.

We introduced a new dropdown on the search setup page to easily make a design panel item Visible (1 click) or Available (2 clicks).

Every time you click on the button it will cycle to the next state: Hidden > Visible > Available > Hidden.

You can also still use it as a dropdown by clicking the arrow.

6.3.14.2 Restructured “Layout Options” section
We restructured the “Layout Options” a bit. It is now shown in a popup and the icons should make it easier to quickly find back what you are looking for.
6.3.15 Other Search Improvements

6.3.15.1 Limit cell height (expand on request)
In the Results Table layout options, a checkbox to Limit cell height (expand on request) is added (checked by default). You can turn off this checkbox to immediately see all the content of the cells instead of having this overflow container where you must click on to see all the content. For example, this can be useful if you immediately want to see all pending approvers.

“Limit cell height” enabled (default) – click to expand:

```
GETST_2D坞L Orange MIX.pdf
```

“Limit cell height” disabled – results always expanded:

```
GETST_2D坞L Orange MIX.pdf
```

6.3.15.2 Initial Thumbnail Display
In the Results Table layout options, a dropdown is added to choose between Default (User Preferences), Show Thumbnail and Hide Thumbnail which will respectively initially, follow the user preferences (default option), show the thumbnail or hide the thumbnail. Note you can still show/hide the thumbnails afterwards with the button defined by the Hide Thumbnail button option.

6.3.15.3 Larger Thumbnail on Hover
While previously you would always get a larger thumbnail popup on hover of the thumbnail on the search results page, you can now configure the Result Layout option Larger Thumbnail on Hover. It has 3 possible values:
- No: this will never show the larger thumbnail on hover. This is the default for the thumbnail in Project searches.
- Yes: this will show the larger thumbnail on hover immediately.
- Only After Button Click: this will not show the larger thumbnail on hover immediately, but you get a small button where you can click on. After clicking, you get the larger thumbnail on hover. You can go back to the small button by clicking the close button next to the title in the popup. This is the default for the thumbnail in Document searches and Approval Tasks.

6.3.15.4 Show or Hide Time for Date Search Fields
For all search date fields (in all project, document and task & approval searches), an option “Show time” is available in the configuration popup (gear icon). If this option is enabled, it shows the time for that date when shown in the search results. Otherwise the time is hidden and only the date will be shown.

6.3.15.5 Thumbnail URL in Search SDK
All the new fields added to Search in this version are available in Search SDK. Additionally, we also made the thumbnail URL available from Search SDK.

6.3.16 Text Content Search
You can show facets for Document Status and Element Type for text content documents.

6.4 Discussion Improvements

6.4.1 Read-only discussions
A Discussion Owner, Project Manager or Admin can now make a Discussion read-only. This is indicated in the UI and users are not allowed to add replies to the discussion.

6.4.2 Global Discussions
Admin users can now create global discussions in “My Discussions” or Discussions Widget. Global discussions are by default visible to all users. The audience of a discussion can be restricted to certain groups or users.

When a global discussion is created, it is possible to make it read-only immediately. This can be useful for making system announcements.

The “Discussion Started”, and “Message Added” e-mail Notifications are available for Global Discussions, the system default notification setting is respected (admin > preferences > notifications).

It is not possible to mention in global discussions.

6.4.3 Global Discussions counter
A new option was added to General Preferences “Include indirectly visible private Discussions for PM/Admin”. This option allows filtering out indirect Discussion for Admin and PM users.
An indirect discussion is a discussion in which the PM/Admin was not explicitly added as a participant.
6.4.4 Event handling for adding and/or removing Participants

Removing and/or Adding of Participants from or to a private discussion thread is now written in the Project/Document History as well as taken into account when sending e-mail notifications. Both these events are driven by “Discussion Modified” event type configuration in the parent Project/Document. Only “Participant(s) Added” event potentially (based on Discussion Modified” event type configuration) generates an e-mail notification messages to be sent out.

6.4.5 Default Participants

Admin can now configure who will be the default participants for a new Discussion thread. Based on this setting, the initial participant list will be prepopulated with default participants whenever a new Discussion thread is created. Discussion Section in General Preferences has new options to configure this setting.

Default Participants:
- Everyone with access to current Project/Document/Task
- No Participants: the ‘visible to’ field will be empty when creating a new discussion and becomes a required field.

6.5 Attribute Category Improvements

6.5.1 Attribute Category Reports

With the 18.1 release, we will now be able to show Attribute Label defined in Attributes page in Attribute Category Report. Prior to this release, report showed only Attribute Name. This is applicable only for Basic Attributes, for Document Reference attributes, Attribute Name is shown. Users will now be able to download the reports in DOCX format also. This is the new export format introduced in 18.1. Jasper Reports do not support background images for DOCX output format. If a template contains background image, when the report is generated, images will not be available.

Report parameters section has been added to display report template name, Content language and Reference property values.

6.5.2 Filtered Document References to export in Report of Document or Project Attributes

While downloading report for Document or Project Attributes, user gets options to choose Reference Property Filters to filter Referenced Documents to keep in the report.

6.5.3 Bulk operations on Referenced Documents

With advanced use of document reference attributes, a single document can be referenced multiple-times from various other documents on pages like Project/Document Attribute Details, Project Creation Form or Task Execution Page. To speed up and improve working in such a situation the “bulk operations” on documents referenced by a document reference attributes were introduced in this version.

Supported operations are:
- 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).

If the user performs one of the above actions with a referenced document and the very same document version is referenced from other document reference attributes on the page, the
user is asked with a dialog if the operation should be performed on the selected document only or all the same documents in the given context. This feature is by default off, but can be turned on separately for each document reference attribute in its rendering configuration on corresponding attribute category configuration page.

6.5.4 Deep Copy of Referenced Documents

When there is a need to create a variation of already done design or copy predefined documents from a template project, where document reference attributes are used to relate individual documents in a logical structure, this is now greatly simplified and sped up by utilizing the new “Copy with Local References” or “Copy with All References” functions. These functions let you copy the selected document and all documents that are referenced from it multiple levels deep just by one click (that's why this feature is sometimes called “deep copy”). Along with the documents all their attributes (including values) are copied as well.

Here is the difference between the two functions:

- “Copy with Local References” copies the selected document and all its descendant documents referenced by it as long as the descendant documents are from the same project as the first (selected) document.
- “Copy with All References” copies the selected document and all its descendant documents no matter from what project they are.

The second function can be useful also to back-up a design with all its dependencies and supporting documents.

Deep copy can be turned on in document sources configuration dialog for these document sources:

- Saved Search, Copy operation
- New (Document Template)
- Copy from Project

6.6 Packaging Content Management

6.6.1 HTML5Viewer improvements for PCM

HTML5Viewer will now be able to show referenced images, barcodes, symbols, table content documents along with Text Content Document. Text Content widget is now extended to show other dynamic content of the Artwork.

Prior to 18.1 release Text Content locale to language mapping had to be done manually by users in Viewer. Now if either project/document attribute category contains hardcoded attributes “LOCALE_XX” then locale mapping will be automatically taken from these attributes. User will be able to see the annotations around the text statements on artwork once viewer is loaded. If no locale mapping is available, then user has to manually set this once viewer is loaded under “locale to language mapping” in “Content” widget.

6.6.2 Permission model improvements for PCM

"ADD_LANGUAGE" is the new permission added in PCM permission model. In previous WebCenter versions permission model, only Content Manager can add new language in the Content document. With this new permission, normal user can add language in the content document with role assigned “ADD LANGUAGE” Permission.

6.6.3 Auto Resolve improvements for PCM

The Language statement’s smart text will be resolved automatically on save of the document. User doesn’t have to manually resolve the text statements.

6.6.4 GS1 Export improvements for PCM

User will now be able to select reference scope filter while exporting GS1. With this new feature user will be able to selectively export referenced documents to GS1 e.g. when exporting from a Product Content Sheet.
For example, Export all referenced documents that have 500g, chocolate as reference scope filter. If document/project attributes has locale information (attribute name should be LOCALE_XX where XX is integer 0, 1, 2...), “Export to GS1” popup will be pre-populated with the same information. Incase locale information is not defined, then as in previous versions, user will have to select locale id to language mapping. This feature is supported only in the manual “Export to GS1”.

When exporting a POA, if the referenced documents have “EXPECTED_NUMBER_OF_OCCURENCES” reference property, then GS1 file will export this data for every dynamic element (Text Content, Table, Barcode, and Graphics). If this reference property is not available, then GS1 will have “1” as value for this field.

When exporting a POA, if the instance id's are not provided for the referenced documents, then WebCenter will auto generate unique instance id.

### 6.6.5 Smart Reference with Current Language selection

Smart Reference became smart enough to know the language of current element, where smart name is available. This helps to show the content in the language of current element.

### 6.6.6 Inherit content for PCM

In the content widget, there is a checkbox to enable/disable follow languages to get the content. If the option to inherit content is enabled, then there is a dropdown to select the source to inherit the content namely none, default, or any master language to follow.

### 6.6.7 Invariant Content can have only one master language

Content documents can have only one master language, when content is invariant. Content which has more than one master is no longer considered as invariant. Existing invariant content (prior to 18.1) which has more than one master language will become non-invariant.

### 6.6.8 PCM workflow nodes support

#### 6.6.8.1 Import Dynamic Graphic:

- Now supports multiple project names in document template project field. This can be either smart name field that resolves to multiple project names or pipe separated values.
- Import Dynamic graphic node is capable of identifying images in library based on Image name itself i.e. no need to set image external path in file attribute of Image file, instead of Image name itself enough.

#### 6.6.8.2 Import Dynamic Barcode

Now supports multiple project names in library project field. This can be either smart name field that resolves to multiple project names or pipe separated values.

#### 6.6.8.3 Import Dynamic Text

Now supports multiple project names in document template project field. This can be either smart name field that resolves to multiple project names or pipe separated values.

#### 6.6.8.4 Import Dynamic Table

Now supports multiple project names in document template project field. This can be either smart name field that resolves to multiple project names or pipe separated values.

#### 6.6.8.5 Export to XLIFF Format

Export to XLIFF format now has a new output pin named as “No Files”. If there are no content to be added for export to XLIFF, then instead of generating empty file, now output will go to this new pin.

#### 6.6.8.6 Update Text/Table Document

Under settings tab a new option is available –
• Inherit Content from
This option will allow user to set “Inherit Content From” property of Text/Table content document.

New “Action” has been introduced to allow inherit functionality in Workflow Node. User has more flexibility to decide on what elements must be updated/added/removed/inherited based on current value/new values. A new column “Condition” has been introduced in both update text/table document where user used to add/update/remove elements. This column has 4 values if action is add/update –
• Always
• New value is not empty
• Current value is not empty/not available
• Current value is empty and new value is not empty
“Condition” column has 2 values if action is “remove”
• Always
• Current value is empty
“Condition” column has 4 values if action is “Inherit”
• Always
• Current value is empty
• Current value is not available
• Current value is empty/not available

6.6.8.7 Import Text/Table/Barcode/Graphics nodes can import new property
Artworks tagged using Dynamic Content will now also import new property of dynamic elements – expected number of occurrences. This will be again be used when exporting the artwork to GS1.

6.6.9 Export to XLIFF Improvements for PCM
Now user gets one more option to “Export Statement(s) only if Target language is not signed off”. With this new option, for any text content document, if target language is already signed off, then the text content document will not be added to the XLIFF file. Additionally if there are no text content documents to export to XLIFF, then instead of empty file, user will now get an alert message stating “No text content document(s) available to Export to XLIFF”

6.6.10 PCM Licenses improvement
Now it is allowed to have more PCM licenses than the sum of all named user licenses. In case the number of PCM licenses is lower than the sum of all named user licenses, a clear warning message is shown on the user overview page indicating that the PCM features will not be available.
In the troubleshooting tool, the number of installed PCM licenses is shown in the list of available modules.

6.6.11 Content document copy operation improvements
New general preference option “When Copying a Content document” introduced in the Packaging Content Management section. When copying a Text/Table Content document, comments can be cleared or retained based on user chosen option in the preference settings. These settings will also be respected by workflow node – Copy/Move documents.

6.6.12 CHILI Preview Dashboard improvements
In the Side-by-Side Preview with a CHILI document, it is now possible to Save the Attributes without modifying the CHILI Document. Before, it was only possible to Save as Draft or to Save as New Version.
6.6.13 Sorting of languages for Text Content
Now in text content basic page, the languages will be sorted by language index mentioned in the language list.

6.6.14 Compare Two Different Version of Text Content
Now we can compare two different version of a Text Content Document in basic page view’s compare tab.

6.7 Dashboard Improvements
6.7.1 Dashboard UX improvements
Efforts have been made to increase the usability of dashboards.

6.7.1.1 Live editing
You can now immediately see the result when making changes to any block. The idea is to keep the appearance of the build mode of the dashboard as close as possible to the final result. The gallery is moved to the left-side of the dashboard, and the configuration panel of the selected block is shown to the right-side of the dashboard.

In the bottom-left of the page, there is a button to switch from “build” mode to “preview” mode and back. In preview mode, the selection of blocks is turned off, so it is possible to interact with the content of the blocks in the dashboard.
6.7.1.2 Collapsible section
This block allows the user to collapse or expand one or more blocks. Also, all layout blocks (Column Layouts, Columns and List Layouts) now have an option to make them collapsible.

6.7.1.3 Bulk configuration of blocks
When editing the dashboard, you can now select multiple blocks and apply changes to all of them at once. Selecting/de-selecting one block is done by clicking anywhere on the block. Selecting multiple blocks is done by:
- clicking on the selection icon in the top-right of the other blocks,
- holding `cmd/control` and clicking anywhere on other blocks,
- holding `shift` and clicking anywhere on the second block to select the second block and all blocks in between the two blocks.
6.7.1.4 Duplicate blocks
You can now duplicate blocks in the dashboard builder by clicking on the duplicate icon in the top-right of the block. This is useful when you have a block that is already configured, and you want to create a similar block that has almost the same configuration as the existing block. Duplicating also works on layout blocks (containing other blocks). All child blocks will also be duplicated. This allows for fast layout creation in the dashboard.

6.7.1.5 Easy Configuration of Column Layout
You can now easily configure the columns with simple drag & drop operations. Rearranging columns has never been easier with drag and drop. When dropping a block in between two columns a new column will be automatically inserted.
6.7.1.6 Gallery improvements
The gallery is now located to the left of the dashboard. The gallery opens when hovering over the “+” icon. When filtering to search for blocks in the gallery now always searches through the blocks in all categories. It is clearly shown to which category they belong (My Work / My Work (Custom) in the screenshot.

6.7.1.7 Background Color, Spacing and Padding
You can now set the background color of dashboards. This enables more immersive experiences for users. The background color can also be set on certain blocks like List and Column Layouts and Rich Text Blocks and Search Facet Blocks. All layout block and some other block have the Spacing and/or Padding parameter, which makes it possible to create nice dashboards that fits your needs.

6.7.1.8 Save as copy
Under more options in the side bar on the left there is an option to save the dashboard as a copy. Save as copy will create a new dashboard with current dashboard setup.

6.7.1.9 Dashboard Editor Keyboard Shortcuts
- Ctrl + s: Save the dashboard
- Ctrl + z: Undo
- Ctrl + y: Redo
- Ctrl + click: Multi select blocks (see Bulk configuration of blocks)
- Shift + click: Multi select blocks (see Bulk configuration of 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.
- Esc: Close the gallery

6.7.2 Global list of dashboards
In the Admin menu there is now a global list of dashboards. These dashboards can be used as:
- menu items (via the menu builder),
- the start page (via the general/personal preferences),
- a landing page of a project (via the landing page configuration in the template).
- the default landing page of all projects (via the general settings)
- configuration of Todo Feed, Selection Details block or Dashboard block

6.7.2.1 Import/Export of Global Dashboards
It is possible to import/export a (list of) Global Dashboard(s). Exporting can be done by navigating to admin > Preferences > Dashboards and selecting the Dashboards that need to be exported and clicking the “Export” button. This will generate an XML/Zip containing the full configuration of the Dashboard that can be used to migrate the Dashboard configuration to another WebCenter installation.
Importing can be done by navigating to admin > Preferences > Dashboards and clicking the import button.

6.7.2.2 Example Dashboards
There are 5 example dashboards installed by default:
- EXAMPLE_CONTACT: example contact page which contains the “what’s new” video and links to the documentation
- EXAMPLE_WELCOME: example welcome page with information about what’s new in WebCenter 18.1 and links to training material.
- EXAMPLE_PROJECT: example of a Project Dashboard containing Project information, a Todo Feed and Discussions.
- EXAMPLE_DOCUMENT: used for the Todo Feed in EXAMPLE_PROJECT
- EXAMPLE_TASK: used for the Todo Feed in EXAMPLE_PROJECT

Note that running the database script overwrites all changes made to these Dashboards. Use the ‘Save As…’ option to make use of these Dashboards as a starting point for your own Dashboards.

6.7.3 Dashboard for Welcome/Contact page
In WebCenter 18.1, you can use a Dashboard to replace the default Welcome and/or Contact pages. In previous versions, the content of these pages could be replaced by a custom HTML page (static text customization) you would upload on the Customizations page. Now, you can replace these pages by simply adding Dashboards named respectively WELCOME and CONTACT (fixed names). This allows for easier access and maintenance of these pages as well as providing access to all new Dashboard widgets and features allowing you to create more effectively landing pages.
Replacing the Welcome and Contact pages by Dashboards will replace the current static text or default pages set up for all Users of the system (not just the current instance).
In General Preferences or in My Preferences a Dashboard can be selected for the Start page
6.7.4 Dashboards for different contexts
In WebCenter 18.1 it is possible to create dashboards for Project, Documents and Tasks/Approvals. In the dashboard builder there is an option to change the context of the Dashboard that you are building. Based on the selected context the gallery is filled with different blocks.

6.7.4.1 Dashboard Context Simulator
With the context simulator in the Dashboard builder it is possible to view the Dashboard for a selected Project, Document or Task.

6.7.4.2 Project Dashboards and the ‘switch to classic view’ option
As mentioned in section 6.11.2 it is possible to configure a Dashboard as landing page of a Project. When a Dashboard is configured as landing page of the Project the Dashboard will be shown full screen (without the project header). To be able to switch to the ‘normal’ mode there is a button on top of the page. It is possible to disable this button in the configuration of the Dashboard.

6.7.4.3 Existing blocks adapt to the current context
When a Discussion block or a My Todo List block is used in a Project, Document or Task dashboard it will only show the relevant information for that Project, Document or Task. If you would like to see all your Discussions in the system on your Project Dashboard then disable the option “Show Discussions in Context” in the configuration panel of the block.
6.7.5 New blocks in Dashboards

6.7.5.1 Project/Document/Task & Approval information blocks

Depending on the context of the Dashboard there are information blocks available in the gallery that show information about the Project, Document, Task or Approval. All properties where you can search on 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.

Next to those blocks a few other blocks are available:

- **Project context:**
  - **Thumbnail:** Shows the thumbnail of the project
  - **Project header:** A preconfigured block with the most important information of a project
  - **Project Attributes:** Shows a view of the Attribute Category of the Project (read only)

- **Document context:**
  - **Thumbnail:** Shows the thumbnail of the Document.
    The block can be configured to show the Document Thumbnail or the Document Version Thumbnail. There is also an option to show the trimmed version of the Document Version Thumbnail which doesn’t show the white borders on the shortest side of the thumbnail.
  - **Approval setup:** Show the Approval Setup of the Document.
  - **Document Attributes:** Shows a view of the Attribute Category of the Project (read only)

- **Task/Approval context:**
  - **Thumbnail:** Shows the thumbnail of the Document or the Task icon.
  - **Task Specifications:** Shows a view of the Task Specifications (read only)

6.7.5.2 Document Actions, Task Actions and Approval Buttons

- **Approval Buttons:**
  - The block is available in Document and Task/Approval context. It is a preconfigured block that shows an Approve, Reject and Comment button if there is a pending Approval for the logged in User.

- **Document Actions:**
  - The block is available in Document and Task/Approval context.
    With this block it is possible 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. It will show 2 buttons for Tasks:
    - Execute Task: which opens the Task Execution Page
    - Go to Project: which opens the Project
6.7.5.3 ToDo feed
With the ToDo feed it is now possible to show your Tasks and Approvals in a custom way. You can configure a Dashboard to show your Approvals and your Tasks. In this way you can build your own layout and use the information blocks to show the relevant information of your Todo items. Use the action buttons to be able to execute actions on the Tasks and Approvals. The Approvals and Tasks will be shown in a nice card style layout.
When the Todo Feed is used in a Project Dashboard it will show you your pending Tasks and Approval in the Project.

6.7.5.4 Saved Search block & Selection Details
The Saved Search block shows a Saved Search in the Dashboards. The context of the Dashboard is used to resolve the smartnames of the Saved Search.
The Selection Details block can be connected to the Saved Search block or the Search Results block in a Search Dashboard. The block will show a Dashboard for each selected item in the Search Results.

6.7.5.5 Dashboard block
The Dashboard block shows a selected Dashboard which enables you to reuse a configuration in different dashboards. It is not recommended to use a lot of those blocks in a single Dashboard because we foresee a lower performance than when the blocks are directly added to the Dashboard.

6.7.6 Dashboard Layout
There are 2 possible layouts for the main layout of your Dashboard:
1. **Default**: The main layout of your Dashboard is a List Layout
2. **Scrollable Columns**: The main layout of your Dashboard is a Column Layout.

The Scrollable Columns enables you to scroll every column in the Dashboard separately which is for instance very useful when using a Selection Details block and Saved Search block next to each other.

When the dashboard has a Project, Document or Task and Approval context it is possible to apply conditional formatting on the background of the dashboard. There is a button available in the dashboard settings which will open a similar popup as in Search. Conditional formatting of the Dashboard behaves the same as conditional formatting of Cards and Rows in Search.
6.8 Viewer Improvements

6.8.1 CAD_REFERENCE extensions

The CAD_REFERENCE document reference attribute is used to be able to link structural documents to a graphical file. The reference category that is attached to this attribute is used to save alignment information such as orientation and offsets. For more info see: Knowledge Base Article KB166823974

To support the new functionality in 18.1, several new reference properties are introduced. The attributes themselves come pre-installed but they require to be manually added to the reference category.

This is the total list of attributes (including the new) that should be added as a reference property:

- CAD_OFFSET_X
- CAD_OFFSET_Y
- CAD_ORIENTATION
- (New!) CAD_PRINTABLE_PART
- (New!) CAD_PRINTABLE_PART_SIDE
- (New!) CAD_FINISHING_PROFILE

Ensure that all attributes are present, in order to be able to continue to save alignment information in the HTML5 viewer.
6.8.2 3D Viewer Updated
The 3D Viewer has been updated. A big improvement has been made in the performance of preparing the file for viewing. This will have a significant impact on loading a 3D model for the first time in the Viewer. Next to that, the data transferred between the server and the client has also been reduced, resulting in better performance when network conditions are bad.

6.8.3 Support for new Digital Film View format
A new Esko RIP bitmap file formats ".view" is now supported both as single graphics files and grouped in a Digital Film ZIP archive. For LENX files that cannot be viewed directly, it is recommended to configure the RIP to create .view files for inspection e.g. in the WebCenter Viewer.

6.8.4 Viewable components
Component type documents can now be opened in the viewer when they have a document reference attribute containing at least one document. A newly created widget will display the tree of attached documents and allow you to easily navigate between the attached documents.

If the component has a CAD_REFERENCE attribute containing a 3D viewable file, then it displays the 3D model when the component becomes the current selected document.

6.8.5 Previewing artwork on 3D
It's now possible to preview artwork on 3D models within the HTML5 viewer. This can be achieved by using the CAD_REFERENCE attribute to link a Collada to a graphic file. The Collada file can have multiple “printable parts” defined that allow you to specify where to place the graphic on the 3D model. The selected “printable part” is then stored in the CAD_PRINTABLE_PART and CAD_PRINTABLE_PART_SIDE document reference attribute property for further use.

When all graphic files and Collada are combined in a viewable component, then the viewer will apply all graphics at once on the Collada. This may be a precursor to how the final product would look like.

6.8.6 3D Visualizer quality
Next to the printable part, it's also possible to specify a “finishing profile”. The generated 3D model contains all the specified visual effects as described in the finishing profile.

All finishing profiles should have a .stf file extension and are be stored either in a project called “StudioManager”, or in the project of the Current Document. The generated 3D model will be rendered in much higher quality, and so it is a more resource intensive process compared to not specifying a finishing profile.

6.8.7 2.5D
You can also preview your artwork file without having a Collada file. The built-in “curved sheet” is always available in the structured document selector and also be used to see how your artwork would look like with its finishing operations in a 3D environment.

6.8.8 Loading more documents
The document selector has been upgraded to also be able to load in more documents once the viewer has already opened. The documents are grouped by project and can be filtered on Project Name and Document Name.
6.8.9 Text Selection Tool Improvements
Several improvements have been made to text selection in the Viewer. From now on, it is possible to select text in a PDF (.pdf) or an Adobe Illustrator (.ai) document, without the need of extra steps during “Checking and Registering”. This is limited to text stored as a text stream in the PDF though; outlined text cannot be selected. Next to that, we also made some improvements to the tools themselves. These improvements are also available for text selection on an SVG perspective.
- It is now possible to search for text within the document. All hits will be highlighted and you can zoom to and jump between them.
- There is a new tool available to detect the font and fond size used on a piece of text.
- There is a new tool to find all text below a certain font size. All hits will be highlighted and you can zoom to and jump between them.

6.9 Document details Improvements

6.9.1 Document Version Thumbnail
When opening a document details page for a non-latest version of a document, a “document version thumbnail” is shown in place of the standard document thumbnail. Version thumbnails are available only for (viewable) Graphics and Artios Design/Manufacturing documents. For other document types and non-viewable document versions, the standard document thumbnail is shown.

6.10 CAD Improvements

6.10.1 3D Collada View in Document Details
The document type specific Document Details “Information” section has been extended with a “3D View (Collada)” tab for the ArtiosCAD Design, Canvas and 3D document types. This is an alternative to the already existing “3D View (VRML)” that has become less useful with decreasing browser support for the VRML format. In the Collada View, a 3D model is shown that can be navigated with the mouse controls (like the WebCenter HTML5 3D Viewer).

The Collada viewer is fully HTML5 native and does not require any browser plugins to be installed. If no 3D View can be created, because there are no folding angles in the design, an error message is shown.

6.10.2 Calculated Attributes
Starting WebCenter 18.1 it is possible to use calculated attributes in WebCenter without saving the file first in ArtiosCAD. This can be done by having a default attribute category (with calculated attributes) for ArtiosCAD documents. The values of those attributes will be set during the upload of the document.

6.11 Run a Standard Improvements

6.11.1 Support for distance attributes
Distance attributes can now be used to specify the dimensions when running a standard in both the imperial and metric system. This also means that the users using the imperial system can enable the “Fraction if imperial” option in the attribute category to be able to use fractions when specifying the dimension. Note that existing setups will have to be manually updated to use the distance attribute type for the L, D, W attributes in the attribute categories used to run a standard.

6.11.2 Grain Direction
It is now possible to set the Grain direction of the design created by running a Standard in WebCenter. This can be done by using the GRAIN attribute in your attribute category. The
supported values for this attribute are “vertical”, “horizontal” and “standard”. When using “standard”, the grain direction will be the same as in the Standard. When the attribute value is empty/not specified, the grain direction will be set to “vertical”.

6.11.3 Print side
It is now possible to set the print side of the design created by running a Standard in WebCenter. This can be done by using the SIDE attribute in your attribute category. The supported values for this attribute are “inside”, “outside” and “standard”. When using “standard”, the print side will be the same as in the Standard. When the attribute value is empty/not specified, the print side will be set to “outside”.

6.12 Workflow Improvements

6.12.1 Connection to Automation Engine
There are improvements done to the reliability of the communication to Automation Engine in WebCenter 18.1.

6.12.1.1 WebCenter Sync Workflow Node
This Sync Workflow node in WebCenter will now wait on the answer from Automation Engine before continuing. In case there is an error in the update/creation of the Job, an error message will be shown.

6.12.1.2 Canceling a Workflow in WebCenter
When an in WebCenter 18.1 created workflow is waiting on a Submit Workflow node, and you cancel its workflow, the corresponding workflow in Automation Engine is canceled.

6.12.1.3 Force a WebCenter Workflow node to an Output Pin
A user with Change Task rights can now force a node to an output pin. When such a user right clicks on the (blue) token of a running workflow node, 2 options become visible:
- Force to Completed pin: this will put the token on the green completed pin.
- Force to Error pin: this will put the token on the red error pin.
When clicking one of the options, a confirmation window appears. The action is logged in the project history.

This force action is supported in 3 workflow nodes:
- Submit Workflow:
  o The token is put on respectively the Workflow OK or Workflow Error output pin.
  o The workflow is canceled on the AE side (if still running and only for Workflows created since 18.1)
- Sync Workflow (since we now wait on the answer)
- Wait

Forcing a node to an output pin can for example be useful when the feedback from Automation Engine could not be received, some correcting actions are done manually, and you want the WebCenter workflow to continue.

6.12.2 Workflow Engine Queuing Strategy
The workflow engine queuing strategy was changed to make more optimal use of the existing caches. This should lead to performance improvements on highly concurrent workflow systems where a lot of workflows run in parallel.
6.12.3 Run Report node

Use this workflow node to generate report for incoming documents / projects/ any custom report. You can also generate one merged report for all the incoming documents. You can specify the target location of the exported PDF document including the Target Project, Target Folder and Document Name.

6.12.4 Create Graphics Placeholders node

You can use this node to create graphics placeholders to represent print area information available in Esko Collada document. Each print area will be associated to the input document with document references. Placeholders can later when replaced with actual printable parts (graphics document) allow you to preview the combine artwork in 3D.

6.12.5 Sync CHILI Variables node

This WF node will sync CHILI variables with Text (PCM Text Content documents) and Image content referenced document for matching CHILI variables.

6.12.6 Wait for View files

The Wait for View files workflow node is introduced to make sure you have view files available before for example starting an Approval Cycle. Another use case is to detect problems or warnings in the view file generation (e.g. a font that got replaced).

During execution, the node will wait for the view files to become available for the incoming document versions and then continue over one of the output pins according to the view files status of these document version(s):

- If the view files are available or if the document is not viewable, the document will be put on the Succeeded output pin.
- If the view files are available but they contain a warning (the Task Details of the view file generation has the text “Task(s) generated warnings”), the document will be put on the Warning output pin.
- If the view file generation failed, the document will be put on the Failed output pin.

The node will fail when there are no input documents.

If the view files were deleted (flushed) for an incoming document version, the node will re-start the view file generation and wait until it’s done and follow the above logic.

If there are multiple documents in the incoming token, the node will wait until the status of all the document versions is known, and then put all the succeeded ones (at that moment) together in one token on the Succeeded output pin, the warning ones on the Warning output pin, etc.

6.12.7 Send Notification Node

The send notification node got an extra smartname Temporary Document Preview (Viewable 2D Documents only) in the “Links” category. This smartname resolves during execution to an image tag with a link to a (non-authenticated) Document Preview (limited in time). The smartname is only visible if the feature is enabled according to the security settings (see Image thumbnails and download links in Approval e-mail notifications). If you use it when the setting is disabled or on e.g. 3D documents, the smartname will not resolve (not shown).

6.13 Project Member Management Improvements

6.13.1 Role assignments

In WebCenter 18.1 it is possible to activate a deactivated user when assigning him/her to a role. When assigning users to a role the dropdown will show all deactivated users that you can reactivate:

- For administrators can activate all deactivate users, so for those type of users all deactivated will be shown.
• For PM’s with create User rights, those type of users can only activate the User(s) created by him/her. Thus, only the deactivated users created by him/her will be shown.

6.14 Group Task Manager Improvements
It is now possible to filter tasks in My Group's Tasks page also on Role. All Roles assigned to Tasks displayed on the page will be available for filtering in the "Task assigned to" selector. A new "Task assigned to" filter selection "Group or Role" shows all Tasks not assigned directly to a Group User member of the selected Group. This filter selection is the default when the page is opened.

6.15 Group Management Improvements
The UX when adding a new user to a Group has been drastically improved. When adding new members to a Group in WebCenter it is now possible to filter on first name, last name, user name, and email of the User, the name or legal name of the Company of the user or the name of the Location of the User.

6.16 User Management Improvements

6.16.1 Bulk deactivation of Users in WebCenter
We’ve introduced the possibility the deactivate Users in bulk from the Users Overview page. This can be done by Administrators and User Creators by navigating to the Users Overview/ My Users respectively. They can then make a selection of all the Users that can be deactivated and the click the “Deactivate User(s)” button to persist the changes.

6.17 E-mail notification Improvements
The e-mail notifications are now by default HTML notifications. The plain text notifications are still available in the e-mail notification folder.

6.17.1 Image thumbnails and download links in Approval e-mail notifications
In the Admin section, Security page, the function group, “E-Mail Notifications and Download Link” has two ON/OFF option “Allow large Document preview (approval e-mail notifications)” and “Allow non-authenticated download of Documents (approval e-mail notifications)”

Allow large Document preview (approval e-mail notifications)
When turned ON, approval related notification emails will contain a large preview image for graphics and CAD document types. When turned OFF, the preview will no longer be shown in new notifications and previously generated emails will no longer be able to show the referenced preview image.

Allow non-authenticated download of Documents (approval e-mail notifications)
When turned ON, a download link button "Download Document" will be added to the default approval emails generated by WebCenter. When turned OFF, the button will no longer be added to new notifications and clicking the button in previously generated emails will result in an error message being shown.
E-Mail Notifications and Download Link

- Allow Project Members with Download permission to e-mail a link for non-authenticated download of a Document
- Allow large document preview (approval e-mail notifications)
- Allow non-authenticated download of Documents (approval e-mail notifications)

The link will be valid for 14 days.

The Administrator User can change the number of days the preview image/download link is valid. Default is 14 days.

6.17.2 Attribute change notification

In the Attribute (and the task specification) change e-mail notification, we have enhanced the display of attribute values.

- Now the “Date and Time” attribute will be displayed in proper date format (in the earlier versions it was shown as timestamp in milliseconds).
- Added support for rendering “Text (Right to left)” attributes in the “Right to Left” format. Note that the alignment of a “Right to Left” text in the UI is still totally dependent on the user’s e-mail application/browser.

6.18 Audit trail Improvements

6.18.1 Project Creation audit trail

When a new project is created in WebCenter 18.1 a project creation event will always be logged in the audit trail.

The new audit trail record will always contain the basic information about the newly created project like the Project name, Project description, customer, customer location and Project Manager.

Just like in previous versions other properties set during the creation of the Project will be covered by the already existing events.

6.18.2 Document audit trail improvements

In WebCenter 18.1 the information provided in the document uploaded event was extended to also include the description of the document. Similarly, the document uploaded event was extended to include the version comment. When a document was copied from another project to this project, the source project is now mentioned in the document uploaded event.

The changes done to the attributes of a document when uploading the document are also tracked in the project history (under the attribute changed event type).

6.18.3 Task audit trail improvements

The task created event was extended to also log the following information:

- Assigned to
- Lead time
- Due Date
- Estimated Date
- Description

6.18.4 Group/Role audit trail

Since WebCenter 18.1 a Group/Role audit trail was added. This audit trail can be consulted by administrators to see which actions were performed on a group and by whom.

The following actions are tracked in the audit trail:

- For Groups:
Group Created
Group Information Changed (renaming of the Group/ changes to visibility setting of the Group)
Group converted to Role
Group deleted
User added to Group
User removed from Group
Group View Rights changed (changes to the list of PM’s/ Project Creators who can view the Group)
Group Manager Changed

• For Roles:
  Role Created
  Role Information Changed (renaming of the Role/ changes to visibility setting of the Role)
  Role deleted
  Role View Rights changed (changes to the list of PM’s/ Project Creators who can view the Role)

6.19 PDF Approval Stamp Improvements

6.19.1 Support for Project and Document Attributes in Approval Information header

A new option has been added to allow listing selected Project or Document attributes of Text or Date/Time type in the header part of the Approval Information page(s) merged into the PDF document when this option is enabled.
The attribute list (Project or Document) is configured by entering a comma separated list of attribute IDs. Non-supported attribute types are ignored.
The PDF Download Options configuration page is extended to cover all existing settings.

6.20 Custom Weekend Settings

Since WebCenter 18.1, it is possible to change the weekend days from the default Saturday and Sunday to Friday and Saturday. This setting will be taken into account when calculating due dates for Document Approvals, Tasks through lead times and the duration/Time Left in the search on Duration/Time Left.

Switching the weekend to Friday and Saturday must be done by configuring both the App and Web servers.

Note that the Task Scheduler functionality does not support custom weekend days. The Task scheduler will always assume that the Weekend days are Saturday and Sunday.

6.21 Security Improvements

6.21.1 Retype old password when changing the password

WebCenter now enforces user to retype the old password when changing the password, the password change will be accepted only when old password passes the validation.

6.21.2 Enforce two component signature when approving documents

The Administrator can extend the “retype password when submitting approval” functionality with a need to also re-enter the username as means of supporting a two-component security measure.
This takes into account PCM related approval. Matching functionality is also available for the completion of tasks – this is configured on individual Task Types separately.
6.21.3 Disable user credential fields auto-completion
The Administrator can disable (via Admin > Preferences > Passwords) web browser auto-completion functionality for username and password field values for the logged in User (if those were saved using the browser's native 'password manager' tool in the past).

6.21.4 Log out user when authentication gets blocked
During the password validation if user exceeds the consecutive failed logins allowed in the System, the user will be logged out of the application immediately. It is applicable in all the pages where password is required to perform an action.

- Password change
- Approval (including PCM related Approval)
- Task

6.21.5 Improved support for TLSv1.2 connections
As of WebCenter 18.1, we improved the support of using TLSv1.2 secured connections to external servers. The connections to following servers now support TLSv1.2:

- Chili
- MediaBeacon
- DB server
- SMTP server

Note: to be able to use TLSv1.2 to connect to your SMTP server, the option “Use TLSv1.2” should be turned on in the E-Mail Environment Setup page.

6.22 Site Service page extensions

6.22.1 Web Server log file rotation
Web server log files are now split into day-encompassing blocks in the same way that the Application server log files are. This means that shortly after midnight each day all the logs recorded the previous day on the Web server are zipped into a single ZIP archive with the timestamp of the day in the archive name for easier troubleshooting for the administrator. This logic adds all the following log file types on the Web server into the target archive:

- catalina.log
- SDK.log
- localhost_access.log
- localhost.log

Note that some of those log file types may not always exist for that particular day – i.e. the access log file is only written if a servlet error occurred during that time period on the Web server.

6.22.2 Shared log file age limit
Both the Application and Web server log files now share the age-limit. The length of time (in number of days) the log file archives be stored on the system can be set. Log file archives older than the set value will be removed shortly after midnight each day.

6.23 Troubleshooting Tool improvements

6.23.1 New check for the View Server configuration
As described in the section about Installer changes, you now also can indicate on the Web Server whether the View Server is externally deployed.
To make sure that there are no issues with the configuration, the Troubleshooting Tool was extended with a test that will check whether the View Server deployment is configured correctly.
6.23.2 New check for the Weekend Setting
Weekend Settings will indicate the weekend setting in Web and Application servers. This weekend setting is considered while calculating due dates for approvals and tasks. The weekend setting is set on both
In case there is a discrepancy in weekend setting in Web and Application server, an appropriate error message is shown.

6.23.3 Added support for localhost test execution
Starting from WebCenter 18.1 it is possible to 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.

6.24 SDK Improvements
CreateUser.jsp
WebCenter 18.1 it is possible to deactivate a user using the CreateUser.jsp call by setting the new parameter “deactivateuser” to 1. Using this parameter also allows a new User to get created in an initial inactive state.

6.24.1 RunWcReport.jsp
When running a custom report from an SDK, the RunWcReport.jsp call was extended to allow specifying values for the report parameters too. It is also possible to define the output project and folder.

6.24.2 SetDocumentThumbnail.jsp
A new SDK call SetDocumentThumbnail.jsp is introduced to set thumbnail for a WebCenter document. New thumbnail image file needs to be passed as parameter “thumbnail”. It is also possible to clear out existing thumbnail by keeping “thumbnailoption” parameter value to “0”.

6.24.3 AutoTextReference.jsp
This SDK call can be used to identify similar TextContent files (text comparison is done as simple text and not rich-text) in library project. Once a similar document is found in library project either Reference is created to library document or SmartText is created to library document based on user parameter. This SDK will take Artwork docversionid which has textcontent documents as its reference documents.

6.24.4 CreateDiscussion.jsp and PostDiscussionMessage.jsp
Two new SDK calls are introduced for Discussions.
CreateDiscussion.jsp allows you to create a Discussion at Project, Document, Task or Global level. It is possible to create read only Discussions and to define participants for the Discussion.
PostDiscussionMessage.jsp allows you to post a new Message to an existing Discussion.

6.25 Installer changes
6.25.1 Internal/external View Server deployment configuration on Web Server
When an “advanced” installation mode is chosen in the UI of the WebCenter installer one of the following dialogs let the user to choose how to deploy the ViewServer component (HTML5 Viewer) on the Application server.
While this was already in place when installing the Application server (where it is deployed) the dialog will now also be shown when installing the Web Server and the User has to choose the same mode as for the Application server (when installing both, only one choice is needed) in order to configure the system properly for running the HTML5 Viewer afterwards.

A special check is made on the Admin > Troubleshooting Tool page to indicate whether the View Server deployment configuration is properly configured.

6.25.2 SAML SSO plugin deployment
WebCenter installs SAML SSO plugin automatically. Any existing version of the plugin files that is in place prior to the installation is replaced with the most recent version as provided by the WebCenter installer.
6.26 WebCenter platform changes
The platform on which WebCenter 18.1 is running was upgraded during this version. The application server has been upgraded to Wildfly 12 and the web server has been upgraded to Tomcat 8.5. Other than that, we’ve also switched from Oracle JDK to Open JDK. These changes will not have an effect on the performance/behavior of WebCenter.

6.26.1 Logging improvements
The Tomcat server log file rotation mechanism has been implemented to follow the same behavior as the JBoss server. This means that every day at 00:20 the log files of that day will be gathered and stored as a zip. This should heavily reduce the space used by the log files on the web server. Just like on JBoss it is possible to configure how many days the log files should be kept. If a log zip is older than the specified amount of days, it will be removed.

Notes:
- The SDK log file is now also rolled over daily and is now also put into the Tomcat log directory.
- It is not possible to force the localhost.log and localhost.access.log to roll over at 00:00 which means that a new zip will be created to store the data the next day, when a new entry is written to those log files.

On the JBoss side, because the switch we made to the new Application server, the boot.log file is no longer used. Issues during the boot of WebCenter will now be logged in the server.log / SEVERE.log file.

6.27 SAML Plugin v1.1.4
Some fixes have been done to the SAML plugin.
- The SAML plugin will no longer send the “force authentication” flag with every authentication request. Most Identity Providers do not read this flag, so for those nothing changes. For Identity Providers that do support this flag, sending the “force authentication” flag effectively prevents “Single Sign On” since the user will be asked to log in every time. This was never the intention.
- Functionality to automatically re-download the SAML metadata if the metadata is provided by a URL has been disabled. The functionality was not working consistently and could cause a memory leak in the module.
7. Known issues and limitations

7.1 First Search Index rebuild

When an update to a new major version of WebCenter is done, a full search index rebuild is needed. If the system is containing a large number of projects, document and tasks, this index rebuild will take significant time. During the index rebuild, only partial search results will be available and some performance impact will be felt for all users. Please make sure to schedule the time of the update to minimize the negative effect of the index rebuild.

Note also that the first search index rebuild after upgrading to 18.1 from 16.1 or earlier can take considerably longer than a standard index rebuild as it might need to regenerate all CAD file related search perspectives in the Filestore.

7.2 Automation Engine approval connection

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

The hotfixes can be downloaded from the Esko software site:

<table>
<thead>
<tr>
<th>Automation Engine version</th>
<th>Hotfix name</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1.1</td>
<td>HF_201801047_20181212_AE-WCR_18_1</td>
</tr>
<tr>
<td>18.0</td>
<td>HF_201806059_20181212_AE-WCR_18_1</td>
</tr>
<tr>
<td>18.0.1</td>
<td>HF_201811018_20181212_AE-WCR_18_1</td>
</tr>
</tbody>
</table>

Older versions of Automation Engine are not officially supported.

7.3 Collada format support

New functionality to add graphics dynamically to Collada structures in the Viewer is limited to Collada files produced by the Esko Studio application.

7.4 Collada Viewing in Internet Explorer

When combining PDF artwork and Collada structure in the WebCenter Viewer, timeouts and error messages can be experienced in Internet Explorer. This is caused by slow JavaScript and WebGL execution in this browser. Please use a more modern browser like Chrome, Firefox or Edge to get best experience for complex 3D viewing.

7.5 Project Attributes Report and Text Content documents

The Project Attributes report will not work if Text Content documents are linked in as document references directly in project attributes.

7.6 Version Thumbnail

The version thumbnail visible in Dashboards, Document Details (non-latest version) and Approval emails is only available for 2D viewable document types (Graphics and CAD). When the document version is not viewable, the standard document thumbnail (same for all versions) will be shown.
8. Additional Upgrade notes

8.1 Cleaning up old search indexes

If upgrading from WebCenter 16.0 or older, some potentially big folders will be left on the file system which will no longer be used. After WebCenter 18.1 is installed these folders can be deleted to save space. Only folders having a name starting with “00001_” in the search index directory (usually “C:\Artios\WebCenter\searchindex”) should be removed. All the folders starting with “00000_” should be kept.
9. Solved customer issues

9.1 Prevent List documents from having excessive amount of versions

When a customer has documents attached to a list and the customer frequently sends new versions of the document to WebCenter, it can happen that we hit the maximum number of versions. A solution is included in 18.1 which will auto-purge the document versions of a document that is attached to a list when the number of versions reaches 30,000 versions.

9.2 List of Resolved Customer issues in WebCenter 18.1

<table>
<thead>
<tr>
<th>JIRA Number</th>
<th>CS Number</th>
<th>Custom field (Release Notes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCR-24594</td>
<td>CS00955969</td>
<td>&quot;Upload New Document&quot; row in Documents Table now accepts drag &amp; drop of files from file system.</td>
</tr>
<tr>
<td>WCR-25775</td>
<td>CS00974819</td>
<td>A required checkbox in attribute category from now on actually means it has to be checked (default value 'false' is not considered a non-empty value in this case anymore).</td>
</tr>
<tr>
<td>WCR-26043</td>
<td>CS00980938</td>
<td>Fix thumbnail enlargement of documents that are smaller by dimensions than their previous version.</td>
</tr>
<tr>
<td>WCR-26117</td>
<td>CS00982534</td>
<td>Possible to tab through multiple select dropdowns in a task or attribute category.</td>
</tr>
<tr>
<td>WCR-26913</td>
<td>CS01005024</td>
<td>When invalid values are selected in cascading dropdown with allow multiple values, a message will be shown, asking the user whether or not the related values should be cleared, instead of just giving an error and not clearing anything.</td>
</tr>
<tr>
<td>WCR-27053</td>
<td>CS01010292</td>
<td>More robust estimation of non-conform narrow bar.</td>
</tr>
<tr>
<td>WCR-27432</td>
<td>CS01017480</td>
<td>It is possible to set a delegation period of exactly one day by specifying the same date for start and end date.</td>
</tr>
<tr>
<td>WCR-27748</td>
<td>CS01017716</td>
<td>The GetDocumentHistory.jsp SDK call now returns information about the delegate who submitted the approval action.</td>
</tr>
<tr>
<td>WCR-27899</td>
<td>CS01023370</td>
<td>Extra encoding has been applied when resolving smart-names in JSON context.</td>
</tr>
<tr>
<td>WCR-27914</td>
<td>CS01024775</td>
<td>Fix issue related to xml to JSON conversion. Made a strict check to always keep language code as string.</td>
</tr>
<tr>
<td>WCR-27927</td>
<td>CS01025385</td>
<td>Fixed issue where the project menu went missing when completing a task from a custom saved search project menu.</td>
</tr>
<tr>
<td>WCR-27967</td>
<td>CS01025504</td>
<td>Added information to indicate that changing Project thumbnails is not possible if the document is published from Automation Engine and the view files are created on AE.</td>
</tr>
<tr>
<td>WCR-28202</td>
<td>CS01028702</td>
<td>Only custom (Jasper) reports are available at the attribute category page (built in Project history and Find Lost Documents are excluded now).</td>
</tr>
<tr>
<td>WCR-28205</td>
<td>CS01029954</td>
<td>Risk of server instability when estimating various UPC-A barcodes.</td>
</tr>
</tbody>
</table>
| WCR-28353 | CS01034360 | The support for approval with annotations for viewable documents with delegation was improved. Following situations are now handled correctly:

1) When the viewer preference "Require Approval Comments on Viewable Documents" is set to User Annotation in General Preferences and a delegate tries to reject a document it will be checked whether either the delegate or the delegator has made an annotation to the document. If that's the case the delegate will be able to reject the document if such an annotation cannot be found a warning will be shown indicating that the user should make an annotation.

2) When the option "Require review state on all annotations" of an approval stage is set to Current Approver:

WebCenter will check whether either the delegate or the delegator has reviewed all annotations. This means that one of the users has to review all annotations.

| WCR-28354 | CS01034907 | Fix problem that one power licenses is found and therefore no base licenses are active.

| WCR-28379 | CS01034822 | Fix read-only annotations not being visible when in side by side comparison mode.
Fix annotation popups being shown on the wrong document when comparing.

| WCR-28380 | CS01035843 | Provide Task error in AE when glyphs are missing in PDF document

| WCR-28405 | CS01031393 | "Upload New Version" button of document actions in Document References table is no more invisible even if properly configured.

| WCR-28518 | CS01037890 | Fix issue related to XML to JSON conversion. Made a strict check to always keep language code as string.

| WCR-28525 | CS01037676 | While creating a project from a template, the project got a due date, even if there was no due date set in the template. Also clearing the due date of a template would not work, and a date would appear once the project information page reloads. This behavior only started after someone set a due date of a task on the task information page or the copy task page. The bug was introduced with the addition of linking due dates to attributes in 18.0.

| WCR-28527 | CS01029562 | WebCenter was hanging during concurrent creation/updates of tasks because of a "transaction/lock" problem

| WCR-28556 | CS01038942 | When exporting Search Results to Excel there was a bug which caused the order of the columns to change after entering the search setup page and searching again. This bug only occurred for "System Order" and only in some browsers like Chrome and Safari. This is now fixed.

| WCR-28618 | CS01040178 | Visibility rules will now be triggered when changing a Document Reference Attribute

| WCR-28635 | CS01041508 | Fix attribute dropdowns tied to a list from being hidden under the sticky header bar.

| WCR-28662 | CS01042905 | The groups list of a user in the system was not in alphabetical order anymore.

| WCR-28949 | CS01034336 | GetAndLoadProject.jsp SDK call now works even if the caller doesn't have view permission to all folders of specified project.

| WCR-29015 | CS01048121 | Saving of the user profile now works correctly if the User was unblocked before saving.
<table>
<thead>
<tr>
<th>WCR</th>
<th>CS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCR-29123</td>
<td>CS01049936</td>
<td>Added checklogoff() call in the finally block to always close the session.</td>
</tr>
<tr>
<td>WCR-29128</td>
<td>CS01050571</td>
<td>Fix facet labels not correctly responding to user interface customization.</td>
</tr>
<tr>
<td>WCR-29185</td>
<td>CS01052067</td>
<td>Rotated ITF Barcodes could show wrong magnification and BWR</td>
</tr>
<tr>
<td>WCR-29314</td>
<td>CS01052516</td>
<td>You could get an error &quot;Error while loading data: Could not find element: xxx&quot; when opening the Select Document node after importing the workflow with the Select Document node using a Select from xxx Document Reference option because the mapping ID -&gt; Name -&gt; ID doesn't happen with export/import.</td>
</tr>
<tr>
<td>WCR-29393</td>
<td>CS01053183</td>
<td>When selecting visibility for a Document Creation property in Attribute Category, it will now show the standard options &quot;Visible&quot; and &quot;Hidden&quot;.</td>
</tr>
<tr>
<td>WCR-29396</td>
<td>CS01053180</td>
<td>In the Attribute Category Editor, Attribute Categories will have less jumping issues when switching the selection between an empty and non-empty cell.</td>
</tr>
<tr>
<td>WCR-29440</td>
<td>CS01052145</td>
<td>Fix displaying annotations on reference document when choosing the reference document mode during comparison.</td>
</tr>
<tr>
<td>WCR-29462</td>
<td>CS01053797</td>
<td>Fix discrepancy between approval information in Approval tab and Action History tab.</td>
</tr>
<tr>
<td>WCR-29535</td>
<td>CS01056281</td>
<td>When loading the target Project using ID, deleted Projects were passed and the Document was uploaded &gt; fixed this behavior for both the public and private (ECAD) SDK call</td>
</tr>
<tr>
<td>WCR-29549</td>
<td>CS01053487</td>
<td>Non basic ASCII characters in the user name are shown as ? in the My Delegated Work overview</td>
</tr>
<tr>
<td>WCR-29571</td>
<td>CS01055141</td>
<td>A possible XSS vulnerability in My Work is solved. (the XSS vulnerability enabled users to only affect themselves or users that they have full control of)</td>
</tr>
<tr>
<td>WCR-29592</td>
<td>CS01057717</td>
<td>When having added the first 20 groups to a Project/Template, there is an option to load the next 20 groups.</td>
</tr>
<tr>
<td>WCR-29603</td>
<td>CS01056257</td>
<td>Fix for Project Folder customization. Added support for counting Project Documents with visibility in mind for a non-PM/non-Admin members of the Project.</td>
</tr>
<tr>
<td>WCR-29655</td>
<td>CS01058126</td>
<td>Disable drag and drop in discussions to avoid erroneous behavior.</td>
</tr>
<tr>
<td>WCR-29707</td>
<td>CS01058502</td>
<td>Fixed issue to avoid the page from scrolling up automatically after scrolling down (Chrome 69 and up).</td>
</tr>
<tr>
<td>WCR-29730</td>
<td>CS01058807</td>
<td>Fix situation where it was not possible to approve a document within the viewer when required attributes were present in the viewer view.</td>
</tr>
<tr>
<td>WCR-29750</td>
<td>CS01057825</td>
<td>Found and fixed some nasty concurrency issues. The pages with document tables/references involved should not freeze on you anymore when completing a task or creating a project.</td>
</tr>
<tr>
<td>WCR-29914</td>
<td>CS01060824</td>
<td>Issue was fixed where translations of specifications did not happen when importing or using copy-paste functionality.</td>
</tr>
<tr>
<td>WCR-29940</td>
<td>CS01061276</td>
<td>Fixed missing translations in create Group wizard</td>
</tr>
<tr>
<td>WCR-29947</td>
<td>CS01061289</td>
<td>When using lists in a search design panel, you will not have unexpected behavior caused by button functionality.</td>
</tr>
<tr>
<td>WCR-30065</td>
<td>CS01063117</td>
<td>Found and fixed some nasty concurrency issues. The pages with document tables/references involved should not freeze on you anymore when completing a task or creating a project.</td>
</tr>
<tr>
<td>WCR-30067</td>
<td>CS01057037</td>
<td>Found and fixed some nasty concurrency issues. The pages with document tables/references involved should not freeze on you anymore.</td>
</tr>
<tr>
<td>WCR-30075</td>
<td>CS01063439</td>
<td>Estimating Datamatrix could cause server thread to be stuck.</td>
</tr>
<tr>
<td>Issue</td>
<td>ID</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>WCR-30078</td>
<td>CS01063618 Fix annotations disappearing when comparing documents in viewer</td>
</tr>
<tr>
<td></td>
<td>WCR-30158</td>
<td>CS01061889 Not possible to upload a default menu as a new one.</td>
</tr>
<tr>
<td></td>
<td>WCR-30163</td>
<td>CS01064266 When pushing rich text to the chili editor, newlines are now pushed as well.</td>
</tr>
<tr>
<td></td>
<td>WCR-30441</td>
<td>CS01056662 When adding attributes with a translated label in the attribute category or task type specifications, the labels are translated right away. Previously, a save was required.</td>
</tr>
<tr>
<td></td>
<td>WCR-30443</td>
<td>CS01065538 Fixed issue where having search results with some linked document where the user does not have permissions on all projects causes problems from the second run of the search. (Showing the correct number of results but no actual results show up)</td>
</tr>
<tr>
<td></td>
<td>WCR-30444</td>
<td>CS01058897 Fixed issue where user could still see attribute views of groups from which he was deleted</td>
</tr>
<tr>
<td></td>
<td>WCR-30523</td>
<td>CS01071318 Approval Setup: The option for &quot;When User rejects&quot; for stages that were not started, was ALWAYS showing &quot;Stop Approval cycle after every approver decided&quot; regardless the option saved in the database.</td>
</tr>
<tr>
<td></td>
<td>WCR-30553</td>
<td>CS01068557 After submitting an approval action on a document, the document still remains in the My Approvals My Work section. This could happen for approval cycles started before upgrading to 18.0, where the approval type was OneOfRole or OneOfGroup.</td>
</tr>
<tr>
<td></td>
<td>WCR-30554</td>
<td>CS01072995 Fixed that when a normal user goes straight to the tasks overview page of a project, the task documents (with certain view permissions) are not shown the first time. After a page refresh they are shown.</td>
</tr>
<tr>
<td></td>
<td>WCR-30686</td>
<td>CS01062868 We make sure that even already expanded and then collapsed attribute categories of referenced documents are not forgotten while repainting the parent attribute category (often caused by rules defined for attributes).</td>
</tr>
<tr>
<td></td>
<td>WCR-30868</td>
<td>CS01075995 Workflow approval, upload new version of a document while the approval is in waiting for workflow, new stage to be started with the option to continue approval on a new version, approvals on the last stage on the previous document version were not inherited along.</td>
</tr>
<tr>
<td></td>
<td>WCR-30922</td>
<td>CS01069065 The &quot;edit next version&quot; functionality is now also usable in the viewer popup showing approval information.</td>
</tr>
<tr>
<td></td>
<td>WCR-30942</td>
<td>CS01079106 Session was not closed when selection action 'Export project' in the 'Integrate with WebCenter' node in Automation Engine.</td>
</tr>
<tr>
<td></td>
<td>WCR-31060</td>
<td>CS01080997 Improved reliability of document rows duplication within documents table.</td>
</tr>
<tr>
<td></td>
<td>WCR-31139</td>
<td>CS01052240 Exporting a task type with a workflow containing an Execute JavaScript node with code containing a self-closing tag (= smart-name format e.g. &quot;&lt;p/&gt;&quot;) did not work as the smart-name &quot;&lt;p/&gt;&quot; could not be found. This is now ignored.</td>
</tr>
<tr>
<td></td>
<td>WCR-31164</td>
<td>CS01082982 When deleting a document version, the approval cycle on the previous version is stopped after starting the approval cycle.</td>
</tr>
<tr>
<td></td>
<td>WCR-31201</td>
<td>CS01083697 Jumping issue in Attribute Category resolved.</td>
</tr>
<tr>
<td></td>
<td>WCR-31307</td>
<td>CS01063644 If the system security setting Allow Conditional approval in Approval Setup is turned off, a template for example with an approval setup can still have the option on from before. If you then create a project, the option would still be turned on. Previously it would completely hide this option in the</td>
</tr>
</tbody>
</table>
Fix attribute category fields being incorrectly marked as "empty" in the HTML5 viewer.

When default landing page for attributes with a view is configured, the attributes page will maintain the view when switching between different menu levels in a project.

CAD files with lines composed of consecutive arcs and Beziers no longer have rendering artifacts.

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<table>
<thead>
<tr>
<th>Issue ID</th>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCR-33065</td>
<td>CS01112683</td>
<td>CreateProject SDK call.</td>
</tr>
<tr>
<td>WCR-33108</td>
<td>CS01114468</td>
<td>[Viewer] Fix displaying the pages in document selector of older document versions, when overwritten with newer documents that have a different amount of pages.</td>
</tr>
<tr>
<td>WCR-33233</td>
<td>CS01114188</td>
<td>It is now possible to use your LDAP password when approving on behalf of a delegator. LDAP can now also be used as a fall back mechanism when signed approval is activated.</td>
</tr>
<tr>
<td>WCR-33286</td>
<td>CS01115329</td>
<td>[Viewer] Fix loading in pages in document selector of older document versions that are overwritten with newer versions</td>
</tr>
<tr>
<td>WCR-33292</td>
<td>CS01118749</td>
<td>Corrected handling of custom Viewer Annotation colors (set using SDK)</td>
</tr>
<tr>
<td>WCR-33314</td>
<td>CS01119417</td>
<td>ARD files that contain nicks are now properly displayed in the HTML5 viewer</td>
</tr>
<tr>
<td>WCR-33386</td>
<td>CS01121172</td>
<td>Solved the issue that &quot;Upload&quot; (&quot;Browse&quot;) document source to add a document to document reference attribute/specification kept indicating 'No File Selected' even if the file was present (and uploaded correctly).</td>
</tr>
<tr>
<td>WCR-33386</td>
<td>CS01121172</td>
<td>Two workflow nodes running in parallel could have problems during resolving of smart-names (e.g. ArrayIndexOutOfBoundsException, NullPointerException) because there was cross talk during the smart-name resolving resulting in e.g. random concatenated values.</td>
</tr>
<tr>
<td>WCR-33394</td>
<td>CS01116731</td>
<td>Due to double clean up, smart-name resolution was adding extra &lt;p&gt; tags when &lt;b&gt; tags were appearing. This is rectified and fixed now</td>
</tr>
<tr>
<td>WCR-33431</td>
<td>CS01096603</td>
<td>Use shorter file names in the ZIP file.</td>
</tr>
<tr>
<td>WCR-33810</td>
<td>CS01125664</td>
<td>Customer issue: HTML 5 viewer data blocked by strict (non-default) content setting in Tomcat</td>
</tr>
<tr>
<td>WCR-33827</td>
<td>CS01127302</td>
<td>Visualization problem fixed with &quot;</td>
</tr>
<tr>
<td>WCR-33828</td>
<td>CS01126354</td>
<td>When uploading a new version and starting from a stage that was already completed before, ensure that the approval starts from the correct stage.</td>
</tr>
<tr>
<td>WCR-34012</td>
<td>CS01131157</td>
<td>[Attribute category] Fix quotes not properly being escaped when used as a rule compare value.</td>
</tr>
<tr>
<td>WCR-26363</td>
<td>CS00976281</td>
<td>Improved the pagination issue that occurred when using attributes with visibility rules under Document reference attributes was resolved.</td>
</tr>
<tr>
<td>WCR-31905</td>
<td>CS01085667</td>
<td>Fixed an issue where Restricted sets were shown as restricted set in the document rows of document references, even if the underlying category was read-only.</td>
</tr>
<tr>
<td>WCR-33177</td>
<td>CS01116541</td>
<td>Improved the stability in Attribute Category page.</td>
</tr>
<tr>
<td>WCR-33399</td>
<td>CS01120331</td>
<td>When the current task assignee is invalid because of the task type's Allowed Assignee setting, the Assign To Role button to re-assign the task to the allowed assignee was not always working</td>
</tr>
<tr>
<td>WCR-33826</td>
<td>CS01122602</td>
<td>An issue is fixed where the user could be automatically logged out by the system before it was completely logged in which could result in login errors of the Workflow user during the Create Project workflow node.</td>
</tr>
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</table>