WebCenter 18.0 Release Notes

1. Introduction

This document gives an overview of the new features and changes in WebCenter 18.0. It only covers the changes since WebCenter 16.1.1.

If you are updating from WebCenter 16.1.1 or earlier versions, we advise your reading the release notes of all versions between your current version and WebCenter 18.0. You can find these on the documentation page of WebCenter:
https://www.esko.com/en/Support/Product?id=WebCenter&ver=16.1

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

1.1 Highlights of the 18.0 Release

Highlights of the WebCenter 18.0 release include:
- Permanent **Delegation** and **Out of Office**
- **Workflow** controlled **Approval** setup
- Flexible and powerful **Reasons for Rejection**
- Linking of Due Dates to **Project Milestones**
- Completely updated **Discussions framework**
- Integrated **2D/3D HTML5 Viewer** with lots of new functionality
- Configuration of **My Work** as a **Dashboard** with powerful new sections
- Valuable **Form Builder** extensions to accelerate building and change
- **Security** and **Audit Trail** improvements
- New generic **Component** document type
- **Date/Time triggers** and (synchronous) **script** execution in the **Rule Engine**
- Support for **Localization** of custom labels in forms and dashboards
- Better tools for **managing Companies** and **Locations**
- and numerous new **Search** and **Operational Reporting** features

The **Packaging Content Management** module has been extended with
- Support for **Barcode**, **Symbol** and **Image** content types
- Advanced **Product Content Sheet** (Copy Sheet) functionality
- **Configurable Tabular** text elements
- Text elements **Embedded** in other Text elements
- and several **UX improvements**

2. Contents

3. Release Content

The Esko Software Suite for WebCenter 18.0 contains:
- Platform 16 WebCenter DVD that includes WebCenter 18.0 and ArtiosCAD 16.1.1 Enterprise installer [1)2)3)]
- Platform 16 Engines Software Installation DVD with Automation Engine 16.1.1 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 16.1.1 Enterprise build 940 or later is mandatory for WebCenter 18.0 (on the application server only).*
2) *An update of the License Manager (installed from the ArtiosCAD installer) is mandatory when updating from WebCenter 16.1.1 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 requires the WebCenter 18 licenses. You need to install the new ArtiosCAD 16.1.1 and the new License servers, local License Manager and Network License Manager. No functional change has been done 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.x.

Read also the Installation Guide and System Requirements. See https://www.esko.com/en/support/product?id=WebCenter.

5. Knowledge Base

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

Esko Knowledge Base (all products): https://www.esko.com/en/Support/Documentation/

All articles related to WebCenter:
https://www.esko.com/en/Support/SearchResult?product=WebCenter&Keyword=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 18.0

6.1 Delegation (Out of Office)

In WebCenter 18.0 we add the possibility to delegate a user's work to other WebCenter users. This change eases collaboration in situations where a user with the work is assigned is not available.

6.1.1 Terminology used

Delegate: person to whom the work is delegated.
Delegator: person who is delegating his work to someone else.
Active Delegation: period during which the delegate can take up the work of the delegator.

6.1.2 Setting up Delegations

There are two different setups for delegation:
- The setup of possible delegates, this is an admin only setup.
- The setup of the active delegation.

6.1.2.1 Setup of possible delegates

Delegation uses a permission based system to determine whether or not a user can take up the work of another user. The system ensures that it is impossible to get a higher permission level through delegation. In summary:
- An admin cannot delegate his/her work to normal users or Project Managers (PMs)
- A PM cannot delegate his/her work to normal users

Next to those basic rules, admins can specify to whom a specific user can delegate his work. This can be configured on the system level in the general preferences or on a per user basis to have more control.

6.1.2.2 Setup of active delegations

This setup can be done by three types of users.
- The user himself
- The user owner (the Admin or PM with Add User rights, who created the user)
- Any administrator

Depending on the type of user this configuration can be done via the My WebCenter menu item (user himself) or via the profile of the user (Admins / PMs with Add User rights)

When setting up an active delegation, some information has to be specified.
- The delegate: person to whom the work is delegated.
- The start date: the date on which the delegation becomes active.
- The end date (optional): the date on which the delegation expires. When an end date is not specified, the delegation will be permanently active (until it is removed or an end date is specified).
- A comment (optional): A text field that can be used to specify extra information. This comment will be visible to the delegate.
- An option to specify whether or not e-mail notifications should be forwarded to the delegate.

During the configuration, you have the option to notify all the delegates for who (part of) the configuration was changed. On top of that, you can configure to not receive e-mail notifications during periods that delegation is active.

6.1.3 Executing delegated work

In the current delegation model, we use the concept of impersonation. Before you can take up any delegated work you first must log in with your own credentials. When clicking the delegation icon in the top-level menu, you can see an overview of the tasks and/or approvals that are directly assigned to each delegator.
Clicking the Act As button logs you in to the workspace of the selected delegator.
The same overview of the amount of tasks and/or approvals can also be shown in a popup when a user to who work is delegated logs in. From this popup, the delegate can immediately log in to the workspace of the delegator.

Once you are logged in to the workspace of the delegator, you are impersonating that user. This means that you have the same permissions and see the same projects as the delegator.

Whenever the delegate performs an action as the delegator the action is tracked in the project history or user history leaving evidence of both the delegate and delegator users.

The login of the delegate as the delegator is tracked explicitly via the login tracking framework.

6.1.4 Hiding menu items for delegates

In the menu builder it is possible to specify whether a menu item should be visible to a delegate or not. This can be configured in the "Visible To" section of a menu item. At this location a new checkbox was added "Hide for delegates", enabling this checkbox will hide the menu item whenever a delegate is performing work for the user.
In the default menu this checkbox is enabled for following menu items:
- My Profile
- My Password
- My Delegates

Since these specific pages are handling user sensitive data, these pages are blocked whenever a delegate is trying to access them.

6.2 Discussion Improvements

In WebCenter 18.0 Discussions are completely reworked.

6.2.1 Discussion data migration

To prevent any data loss, all Discussion threads created in previous WebCenter versions are migrated to the new data model so that they still can be read and updated.

The migration process is performed automatically after the Application Server is started for the first time after a server update to WebCenter 18.0.
Depending on the amount of Discussion data to be migrated, this process may take a considerable time (though normally much faster than the full search index update also needed after a major update).

After migration all existing discussions are automatically marked as unread for all users. A user can easily mark all discussions as read by opening the My Discussions page and click "Mark all as Read" in the filter menu.

Note: Performing batch operations like "Mark all Discussions as Read" on a large amount of discussions can take a while to perform and the system will also need a moment to reflect the new updated state – especially the "unread Discussions count" indicated on the discussion icon in the top right menu bar might be inaccurate for a small period of time after executing a batch operation on a large set of Discussions.

6.2.2 Limit the audience of a Discussion

While creating a new Discussion, it is possible to select a list of participants. The Users, Groups and Roles selected as participants will be able to see the Discussion. If anyone is selected as participant the Discussion is considered as public. A public Discussion is visible to everyone who is a member of the Project or has View rights to the Document or Task to which the discussion is linked.

6.2.3 Merged view of Discussions in a Project

The Discussions Tab of the Project gives an overview of all Discussion in the Project including the Discussions on the Documents in the Project and Discussions on the Tasks in the Project. There are different filters to search through or to limit down the list of Discussions.

6.2.4 Different context options for Task Discussions

In the Task Type setup, new options are added for Discussions. It is possible to select the context in which a Discussion on a task created from the Task Type will be created. The following options are available:

- **Current Task**: Discussions are created in the Task itself.
- **Parent Workflow:** Discussions are created in the Parent Workflow of the Task. The Discussions are visible in Every Task in the Workflow with this setting.
- **Root Workflow:** Discussions are created in the top level Workflow. The Discussions are visible in Every Task in the Workflow with this setting.
- **Project:** Discussions are created at the level of the Project in which the task sits. All Project Discussions are visible in the Task.

Besides the context there is an option to add the Discussions on the Documents linked in the Task to the list of visible discussions.

6.2.5 Mentioning

It is possible to mention User, Groups or Roles in a Message by starting a new word with '@'. Only User, Groups or Roles which have access to the Discussion can be mentioned. The User, Group or Role that is mentioned gets a notification by email.
It is also possible to mention Projects or Documents by starting a word with '#'. A User can only mention Projects where he/she is member of and Documents on which he/she has View rights.

6.2.6 Watching

A User can "Watch" or "Unwatch" a Discussion. Watching is considered as a personal User setting of the User to indicate Discussions where he/she is interested in.

6.2.7 Unread messages/threads

WebCenter keeps track of which messages a user has read. The discussion counter in the project and document menu indicates unread messages. It is possible to filter on discussions with unread messages.

6.2.8 Discussions in the Viewer

The HTML5 viewer now has a Discussion Widget which shows the discussions of the opened document. All the normal discussion functionality is available in the viewer. It is possible to disable the Viewer Discussion widget in General Preferences.

6.2.9 My Discussions

A new menu icon "My Discussions" is added. The icon indicates the number of unread discussions in the system visible to the current user. Clicking the icon opens the My Discussions page which gives an overview of all discussions the user is involved in.

6.2.10 Notifications

There are new types of notifications added for Discussions which are configurable system-wide and on Project level:

- Discussion Started
- Discussion Deleted
- Message Added
- Message Deleted

The Involved People for these notification types are set the list of Users who are watching the Discussion.

6.3 My Work Dashboard

The My Work functionality has been reworked and now uses Dashboards. This enables you to create advanced, mobile friendly My Work pages.

On top of the existing My Work sections, you can now also add Image Spinner, Counter, Discussions and Rich Text blocks to your My Work page.

6.3.1 Configuration of My Work Dashboard

Configuration of the My Work page has been moved to the page itself. The pencil icon in the top-right corner opens the dashboard editor (same GUI as for the search dashboards introduced in WebCenter 16.1).

6.3.2 My Todo List

A new My Work block was introduced to give you a merged overview of Approvals and Tasks. Items in the Todo List can be grouped by Due Date.

You can configure this block to show only Approvals, only Tasks or both Approvals and Tasks.

It is possible to have more than one of these blocks with different filters shown at the same time.

6.3.3 Projects filter in Approvals to Follow Up section

A new filter "Projects" was added to the Approvals to Follow Up section. The filter defaults to "All" projects (as in earlier versions of WebCenter), but have a setting for showing documents in "Active Only" projects.

6.3.4 Discussion Block

The Discussion Blocks gives you an overview of all discussions in the system (similar to My Discussions).

6.4 HTML5 Viewer

Collada files and other files that support 3D can now be opened with the usual 2D HTML5 viewer. This is a part of our ongoing efforts to unify the viewers within WebCenter.

From within the Viewer, it is possible to approve or reject a 3D Document in the same way as you would approve or reject a Graphics or CAD Document.

6.4.1 Unified Viewer for 2D and 3D documents

The HTML5 Graphics/CAD viewer has been merged with the 3D Collada Viewer to create a much improved user experience when opening a list of both 2D and 3D documents.

For documents with both 2D and 3D views, new controls allow switching between the two in the main viewer window or even show them side by side.

6.4.2 Display a linked 3D Collada asset with a Graphics file

If a Collada file is linked to a graphics asset through the CAD_REFERENCE document reference, it will be made available in the viewer together with the graphics document.

This feature allows enhancing the graphics viewing experience with e.g. a 3D Collada model that is created outside WebCenter.

6.4.3 Compare 3D documents

It is also possible to compare two 3D Documents. When the current page is a 3D Document, the 'Compare To' selector becomes available and shows the other 3D Documents. The available compare modes are View Current Version, *View Reference Version, View Both – Blinking* and *View Both – Side by Side.* When both versions are shown it is possible to 'lock' the camera angle. When the camera is locked and an object is rotated then the other object is also automatically rotated with the same amount. A "low performance" client option is added

that waits to synchronize the 3D models in real-time in order to lower the performance impact on e.g. mobile devices.

6.4.4 Annotate 3D documents

It is now possible to add 2D annotations directly on a 3D view of a document. If the 3D document is opened as a view on a 2D document, it will be saved together with the normal annotations of that document.

If annotations are made on a 3D (Collada) document opened directly in the viewer, the annotations will be stored directly with this document version.

In the viewer, all annotations will show up in the Annotations list. To make an existing 3D annotation show up in the 3D viewer (or 3D window if both 2D and 3D available), simply click it in the Annotations list. This will change the view angle of the 3D model to what it was when the annotation was made and show the annotation markup on top of the model.

Like with other documents, the annotation report page gives an overview of the 3D view annotations with accurate thumbnails.

6.4.5 Compare Viewable Other (SVG) documents

It is now possible to compare 2 different "Viewable Other" (SVG) documents or document versions with each other as well as comparing SVG documents with standard Graphics documents. The supported compare modes are blinking and side-by-side.

This feature allows comparing e.g. two PowerPoint presentations or a PowerPoint with a PDF graphics document.

6.4.6 Document selector improvements

Buttons have been added to allow you to easily navigate back and forward through the list of loaded documents.

The document selector dropdown will now also group multiple versions of the same document together in a sublevel, to get a better overview.

6.4.7 Option to not keep the session open

There is now a general preference that allows an administrator to specify if a user's session should expire when the user is not active in the viewer. If the session is expired, then the user is greeted with a popup that allows him login on another tab. Once the user has been authenticated then he can continue his work where he left off.

6.4.8 Block approval when attribute category validation fails

Approving a document inside the viewer will now no longer be possible if the document has an attribute category with a Viewer view and the validation of that attribute category fails. When approving on behalf of a role, the validation of the corresponding role Viewer view is used if found, otherwise the general Viewer view will fail.

The validation will block approval if a required attribute is not filled in or if a validation JavaScript button returns an error.

The document attributes panel (with the relevant view selected) will be shown automatically if the validation fails.

This functionality makes it possible to make a document approval checklist (per approval role) in the Viewer.

6.4.9 Hide approval outside of viewer

A new option is introduced under admin > Preferences > Security named "Hide approval outside of viewer". Enabling this option results in all approve/reject actions to be hidden everywhere except for the viewer. This ensures that users are only able to approve or reject documents from within the viewers.

6.4.10 Show approval setup in the viewer

Users that have change approval rights can now access and edit the approval setup from within the viewer. This can be used for example to easily add a new approver.

6.4.11 Always show annotation popups

A new annotation setting has been introduced that forces annotation popups to be always visible. This will happen regardless of the "pinned" status of the annotation.

6.4.12 Fit view to selected annotation

"Fit View to Selected Annotation" is a new setting that has been introduced to the annotation widget. When this option is enabled and an annotation is selected then the viewer will automatically change the screen to fit this annotation.

6.4.13 Java Collada Viewer has been removed

The Java Collada Viewer has been removed in favor of the HTML5 Collada viewer. The relevant settings have also been removed from "My Preferences" and the general admin preferences page.

6.5 Approval – Workflow integration

Approval stages can now be better integrated in workflows. This is valuable for example, if people want to add checkpoint tasks in an approval cycle, route documents to specific stages based on previous stage results, or assign roles only in between stages. To accomplish this, two new workflow nodes are available.

6.5.1 Start Approval Stage node

The Start Approval Stage node allows setting up an approval stage similar to a stage on the approval setup page. You can add approvers through a searchable dropdown of all visible users, groups and roles in the system and you can define stage settings like Due Date (similar to tasks), Allow Conditional Approval, When One User Rejects and Require Review Stage on all Annotations.
You can also (re-)define approval rule settings per stage like (custom) e-mail notification settings and the approval master.

When executed, the node will insert and start the specified stage with all its settings on the incoming document version(s). The node will wait until the document version(s) got approved/rejected for that stage and put the document on the output pin that represents the final approval status for that stage (Approved, Approved with conditions, Rejected). Afterwards, you can route it to a task, another stage, etc.

The workflow feedback shows whether the node is waiting for approval and on which documents. If a document version is deleted while the node is waiting, it will put the document on the error pin with the message "Document version is deleted".

Note that one token with multiple documents can become multiple tokens on the output pins. As soon as the final approval status for the stage of one of the incoming documents is known, it continues over one of the output pins.

If there are no input documents or if a document already has an ongoing approval cycle the node will fail with an error message.

Roles for a particular stage only have to be assigned when that stage starts. If a role in the stage setup is not assigned when the stage starts, an error will be shown.

During the stage approval, a workflow driven approval cycle can be stopped, modified (only adding or removing approvers in that stage) and started again by users with the appropriate rights.

6.5.2 Upload new version during the approval

Just like with traditional approval cycle, people can upload a new version when the approval process is ongoing.

When the workflow is on an ongoing approval stage, it depends on the stage setting 'When a new version is uploaded' what will happen when uploading a new version:

- Approval restarts from Current version.
  This is the same option as in the traditional approval: the approval setup is copied and the status of the previous versions is inherited. The approval starts at the current stage.
- Approval continues.
  This is the same option as in the traditional approval: the approval setup and submitted approvals are inherited to the new version and the approval continues.
- Go to New Version Pin.
  When this option is selected, the document will go to the output pin. This can be used to allow the user to decide what to do with the document, for instance, you can have a manual task where the user can fill out specifications and based on these specifications, the documents' approval can be (re)started or not.

The new version can also be uploaded when the approval is in a 'waiting for workflow' state (meaning that approval is required, but there workflow is pending completion of a manual task). In that case, the approval of the new version is also 'waiting for workflow'. When entering a new approval stage or the finish approval stage, the "upload new version" setting is evaluate as if the document's new version was uploaded when being in this stage.

6.5.3 Finish Approval Cycle node

As you might not always know the amount of stages up front, a separate workflow step has to be added to decide when the approval for a particular document is finished. The Finish Approval Cycle node does this job.

Double clicking the Finish Approval Cycle node, allows setting up the parameters:
- E-mail notifications:
  - No notifications: no e-mail notifications for Approval Cycle Finished will be sent out.
  - Default notifications: the first custom/none e-mail notifications setup (in the order folder approval setup > project notifications setup > system notifications setup) will be taken
  - Custom notifications: choice to send e-mail notifications to the Project Manager, Involved People and/or Project Members:
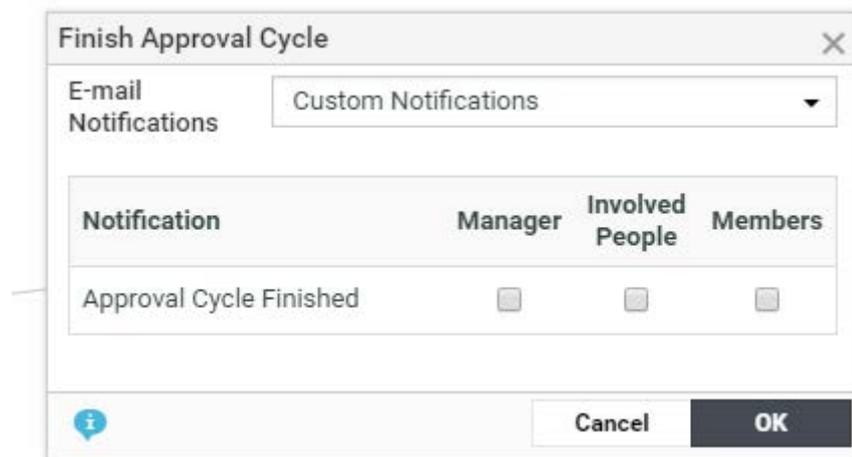
When executed, the node will finish the approval cycle on the incoming documents and send out e-mail notifications according to the setup. It puts the documents on the output pin that represents the final approval status of that document (Approved, Approved with conditions, Rejected).

The final approval status of the document is the same as when a traditional approval cycle would finish. In a workflow where the rejected pin of a Start Approval Stage node is

connected to another Start Approval Stage node, the rejections are not taken into account when calculating the final approval status. This is in line with the Continue Approval Cycle Anyway option in staged approval where previous stages are only seen as a review stage.

Documents with similar approval statuses (e.g. 2 documents arriving in one token with final approval status Approved) will travel together (as one token) over the output pins. Only the error output pin will be split per document (to see the error for that document).

Users with Change Approval rights can also manually finish a workflow driven approval cycle from the document approval setup page by using the Finish Approval Cycle button. This button is only visible when the cycle state is "Waiting for Workflow". This is useful if your workflow failed or is canceled and the finish approval cycle node will never be executed. The execution part is similar to the Finish Approval Cycle workflow node. The finish approval cycle notification settings are taken from the last stage settings.

6.5.4 New approval state "Waiting for Workflow"

When the approval on a document was started by a workflow and the stage finishes, the approval cycle goes into a new state: "Waiting for Workflow". This means that the workflow is managing what happens next to the approval. For example the workflow might add a manual task after the stage to do role assignments. When the approval is waiting for a workflow, a

workflow icon is visible in place of the approval status.

On the My Work homepage, in the "My Approvals to Follow Up" section, you can now filter for the "Waiting for Workflow" status as well.

6.5.5 Document Approval Setup for workflow managed approval

When a document has an approval stage started by a workflow, the document approval setup page becomes read only. An icon in the stage header indicates the stage is started by a workflow. You can navigate to the workflow by clicking on the icon.

6.6 Approval Improvements

6.6.1 Approval Audit Trail improvements

When starting an approval cycle where roles/groups were added with the option "All of Role"/ "All of Group", the original role/group is being tracked in the approval setup after the approval is started. In the approval setup, as well as in the document history and project history, the original role and/or group approval is stated when submitting the approval.

6.6.2 Reasons for Rejection

7. On the Admin General Preferences page, a WebCenter list can be selected to enable Reason(s) for Rejection. With this configured, when a user rejects a document, he needs to select one or more reason(s) from the configured list to indicate why he rejects the document. The list of reasons can depend on the template/role/stage of the approval cycle and they can be grouped by a category. It is also possible to set the minimum number of required reasons and the maximum number of allowed reasons. For more info on how to set up the Reason(s) for Rejection list, see KB201428804: WebCenter - How to set up Reason(s) for Rejection.

The Reasons for Rejection are shown on all places where the approval comments are shown. For example on the My Work section My Recently Approvals, the document details approval page and the document action history. The Reason(s) for Rejection can be logged in the project history and can also be included in the e-mail notifications for Document Rejected and User Submitted Approval Status.

When reporting on the (rejected) documents in search, the reason for rejection can be shown as a search results column and we allow filtering and faceting on the reason for rejection

and/or on the category of the reason for rejection. Both reasons for the current version or any version in the document can be shown as columns and it is possible to sort on these columns.

7.1.1.1 Routing on Reasons for Rejection

The workflow router can route on the reasons for rejection of the most recent approval stage.

7.1.1.2 Reporting on Reasons for Rejection

See Reason for Rejection for details.

7.1.2 Approving for multiple Roles

If you are included multiple times in the same approval stage, for different roles, you can now specify for which role you want to approve. This functionality is also available for rejecting and commenting. This means you can approve as one role, but reject as another role.

7.1.3 Inherit Previously Submitted Approvals

It is now possible to configure document approval to inherit approvals submitted on a previous version. The approval stage setup has a new option, "Inherit Previously Submitted Approvals". If set, when starting a stage, previous submitted approvals on this stage (in a previous version or in a previously started stage of this version) will be inherited. This means that people who approved in this stage (when stage name matches) will not be asked to approve again.

7.2 Workflow (Editor) Improvements

7.2.1 Removal of the Workflow Editor Java Applet

The Workflow Editor Java Applet was already deprecated since WebCenter 16.1. In WebCenter 18.0, you no longer have a choice: the HTML5 Workflow Editor will be used when opening a Workflow. All options regarding the choice between the HTML5 Workflow Editor and the Java Applet Workflow Editor are removed as well.

7.2.2 Stepping into a sub-workflow

It is possible to easily see the state of an in progress sub-workflow. You can right click on an in progress workflow node to step into it. The sub-workflow's canvas will slide over the parent. A little trace of the parent is left behind so the user can still go back. It is also possible to use the back and forward buttons of the browser to slide sub-workflows in and out of its parent.

7.2.3 New SmartNames

To build for example custom URLs in the Send Notification node, you have now WebCenter ID smartnames available:
- In the Project category: Project ID
- In the Document category: Document ID and Document Version ID.
- In the new Task category: Workflow ID and for the Task nodes also Current Task ID

7.2.4 Execute JavaScript node API extensions

The WebCenter JS API now allows reading/writing task specifications. This is possible through the already existing Task object:
- getSpecification(specificationName): gets a specification object to get/set the value from.
- getSpecifications(): gets all task specifications.

It is also possible to directly access the workflow specifications through a new method on the API object:
- API.getTask(): this is the workflow task where the node is running in.

This is for example useful if you want to save calculated values of the JavaScript Workflow node (temporarily) in workflow specifications, so you later can pick them up through SmartNames in other nodes.

See WebCenter JavaScript API documentation for more info.

7.2.5 Copy Document Attribute Values Node

Use this node to copy document attribute values from a source document to one or more target documents. There are two sections (tabs) in the setup: General and Document Reference. In the first part, the source document is specified from the list of incoming documents (using the workflow Mark functionality). In the Document Reference part, it is possible to specify a document reference attribute to which references from document attributes found in the source document, but not present in the target document, are copied.

This node will copy all non-empty document attributes including document references from a source document to one or more target documents with their respective reference properties.

7.2.6 Create Project Node Improvements

When updating a project with the Create Project node, you often want to leave certain fields untouched (like Project Manager, Project Status, Project Due Date, Customer, and Location). When you previously removed any of the smartnames and left the field empty when clicking OK in the parameter panel, next time when you re-opened the parameter panel, the smartnames would re-appear. This now got fixed. Only the first time when you add the node to the canvas, the smartnames get added.

For the Project Status dropdown, there is now also an "empty" option having the same effect as leaving any of the other fields empty (keeping the current project status of your updated project).

The same has been applied to the task node (when updating an existing task).

7.2.7 Start Approval Stage Node

This new node is part of the Approval – Workflow integration.
See Start Approval Stage node section for details.

7.2.8 Finish Approval Cycle node

This new node is part of Approval – Workflow integration.
See Finish Approval Cycle node section for details.

7.2.9 JDF over JMF improvements

WebCenter can now connect to an RFC7230 compliant web server (e.g. create a job or start a workflow).

7.3 Task Type Improvements

7.3.1 Saving a copy of the task type

An option for saving a copy of the task type is provided on the task type details page. User is prompted to provide new name for task he wants to make a copy. A copy of existing task is created with new name that is provided by user. This operation will copy all the details of existing task type. Create of the task will be the user who copied the task.

7.4 Rule Engine Improvements

7.4.1 Executing JavaScript Rule Actions

In the Rules Setup of a template, next to the 'Start task' action, there is now an 'Execute JavaScript' action. This action will execute a JavaScript script in the context of the project derived from the template. The JavaScript scripts are found under Preferences -> JavaScript Rule Actions, in the admin menu. In these scripts you can use the same WebCenter JavaScript API as in the Execute JavaScript Workflow Node except for the API.getTask() method as there is no task context in this case.

7.4.2 Date/Time Reached Triggers

When setting up a rule in a template, a new trigger type Date/Time Reached can be chosen. This trigger allows executing actions on all derived projects of a template when the server time passes the resolved timestamp.

There are 2 options:

- **Specific Date:** the actions will be executed on the specific date and time. This can be useful for executing bulk actions on all derived projects e.g. in the weekend.
- **Date in Project:** the actions will be executed on the selected Project Due Date or Date/Time attribute plus or minus an offset of days and/or hours. The calculation is done in working days/hours.

Date/Time reached triggers have to be calculated for all derived projects, so this can potentially take a while when saving the rules.

7.5 Program Management Improvements

7.5.1 Introducing "Project Status Due Dates" for project milestones

This version introduces a new type of Due Date: the "Project Status Due Date". This Due Date is linked to a certain Project Status and represents the time when a certain milestone of the project should be reached. Note that this is a planning milestone; there is no automatic change to the project status happening when the milestone is reached. These new Due Dates are used to assist in visualizing the planning of the project. See "Visualizing Planning based on Project Status Due Dates".

7.5.2 Linking Due Dates to Date/Time Attributes in Project

It is now possible to link Due Dates to Date/Time Attributes in the project. All Date (Date-Time) attributes in the Project can be used to set up this link, but the value comes when using the Date/Time attributes that represent the (milestone) planning of the project. Next to picking a Date/Time attribute, you can also specific an offset. This offset value will be added (or subtracted) from the Date/Time attribute value. For instance, you could set the due date of a document approval to the attribute value "Final Approval Date" – 2 days.

Once the link is set up, the due dates will follow the attribute value. So, if the planning in the project changes afterwards, all the linked due dates will follow.

7.5.2.1 Linking Approval Due Dates

One place where you can link Due Dates to Project Date/Time Attributes is in Approval.
The link can be setup on a project/folder/document approval rule. Date/Time attributes can be used as the final approval date, or can be set as due date per stage.
When the attribute value changes, the due date of approval cycle using this attribute as due date, are updated. This update will also update ongoing approvals. In the case where an ongoing approval's due date is changed, a dedicated notification can be send to the pending approvers.

7.5.2.2 Linking Task Due Dates

Similarly as for approval dates, a Date/Time attribute with optionally an offset can be set up as task due date. When the attribute changes, the task due date is updated. This also works for ongoing tasks.

In the task type, a default attribute link can be set up. This can be overruled when creating/editing/copying a task if the new task type option "Allow changing Task Due Date Link" is checked.
If there are tasks with due dates linked to attributes, the due date cannot be changed via the Change Due Date button or the Task Scheduler.

7.5.2.3 Linking Project Due Dates

Similarly as for approval and task dates, a Date/Time attribute with optionally an offset can be set up as project due date. When the attribute changes, the project due date is updated.

In a template, a default attribute link can be set up for the project due date. Afterwards (in the project), this link can only be changed by administrators, but users or the project manager (PM) can change the related attribute to change the project due date. If there was no link setup, the PM or an administrator can still set a fixed due date.

7.5.2.4 Linking Project Status Due Dates

As mentioned above, a new type of Due Dates was introduced. The only way to use these new Due Dates is to link them to Project Date/Time Attributes.

On the project/template Configure > Project Statuses page, an administrator can set up a link to a Date/Time Attribute of the Project's/Template's Attribute Category with optionally an offset (days/hours). The value of this Date/Time Attribute then indicates the Due Date of that Project Status/Project Stage (milestone).

7.5.3 Visualizing Planning based on Project Status Due Dates

The new "Project Status Due Dates" are used to represent the planning of the project. These Due Dates are linked to Date/Time Attributes in the Project and can also be visualized.

7.5.3.1 Project Calendar in Search

The Calendar View in search has been extended to be able to show the Planning based on Project Status Due Dates.
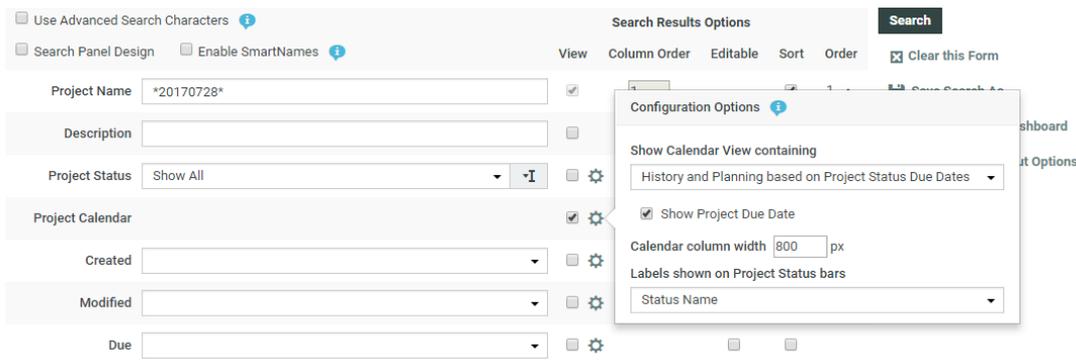
Planning based on existing tasks (in Task Scheduler) does not work well with Workflow created tasks as it will not affect not-yet-created tasks. Planning based on Project Status Due Dates does not have this limitation as both existing and future tasks can be linked to a selected Date/Time (milestone) attribute and will have a changed due-date when the value of the milestone is changed.

The Calendar View has several general improvements; more information about this can be found in the Calendar View Improvements in Search section.

7.5.4 Prevent direct changes to Project Status

By default, WebCenter allow a project manager, to change the project status to any status that is configured to be available in the project. However, in a strict project workflow, it is often not wanted that the project status can be changed outside the workflow. To support this, there is a new option in the Template, Configuration > Project Statuses page. Here, an admin user can specify whether the project status can be manually changed by the project manager.

If set to true (ON, default value) the project manager can change the project status to any configured value. This is the behavior of WebCenter 16.1 and earlier. When the option is false (OFF), the project manager cannot set the project status anymore in the project header (and also not in the project information page). This restriction also applies to the SDK.

The project status can still be changed by administrators and workflows.

7.6 Dashboard Improvements

7.6.1 Image Spinner Block

This new type of block is added to the dashboard builder. The image spinner block provides the possibility to show a selection of images, one after another. The image spinner cycles though the results of a configured saved document search.

7.6.2 Mobile Support

The Column Layout has been improved to better support mobile devices. By defining minimum widths on columns, the columns will reflow to a new row if there is not enough space to fit horizontally. This enables you to make dashboards that are responsive and mobile friendly.

7.6.3 Support for Internationalization

The dashboard now supports Internationalization. You can define translations for block titles, counter labels and rich text fields.

7.7 New Component Document type

The Component document type is added in WebCenter to give an optimized document type for holding only a set of meta-data. This can be to represent a non-file packaging component like a Copy Sheet or a Barcode, but also as an alternative to a project or a placeholder document for holding a packaging (part) specification.

The Component document type share most properties with other document types, but there is a few exceptions. These are the main properties that make a Component differ from other documents:
- Components do not have a document file. Downloading a component will lead to creation of an empty (0 bytes) file.
- When uploading a new version to a Component document, the document type will change depending of the extension of the uploaded document.
- Opening a Component will open a view of the Default attribute category.

The typical use of components will be using a library of document templates where appropriate attribute category and extension is already set.

7.7.1 Upload new version to Component document

When uploading a new version to a Component document, the document type will change depending of the extension of the uploaded document.
The extension of the Component document name can be used to limit what can be uploaded as a new version. If no extension is used, any document can be uploaded. In the latter case, the extension of the uploaded file will be added to the document name.

7.7.2 Open a Component for View or Edit

Opening a component will open a simple view of the documents metadata. User, depending on document change rights, will be able to change the attributes of the document and save the result (no new version will be created). All users will have a Return button that will go back to the page from where the component was opened.

7.8 Search Improvements

7.8.1 Custom Values and Order for facets

It is possible to customize the labels and colors used in facet graph, facet list and facet counter bar.

You can define the sequence of displayed values and only show specific values.

7.8.2 Internationalize Labels for Search

In Search you can enter different labels for columns in the search results by entering a new name in the label field in the search setup design panel.

In WebCenter 18.0, you can also internationalize such a custom label. The design panel now looks like this:

Notice the new "globe" button.

While you can still enter text as you could before, you can now also insert new or existing internationalization SmartNames.

If you click on the globe icon you get a popup where you can search through the existing translated labels or add a new one:

Once you add it, it will be shown as a SmartName in the label field and a popup will open where you can add or edit the translations.

Once you are happy you click on "Ok".
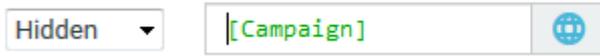
When the label is shown the SmartName will be replaced with the translation in the language of the user.

Note that you can also use the "suggestion" feature to insert existing labels. Just type "[" in the field and start typing the translation and suggestions will start appearing.

As is the case for the menu builder, customized translations are saved in the custom language files in the custom folder. Import/export of Saved Searches will transfer the SmartName but not the translations linked to it. When doing migration of a setup from one system to another the files in the custom folder will also need to be copied to get the correct translations.

7.8.3 Internationalize Search Title

You can now edit the title of a search. This title will be shown at the top of the page when executing the search. It is shown when the search is used in a main menu, when the search is executed from the list of saved searches or from the search setup page. It replaces the saved search name or the "Search results" text shown in previous versions. The custom search title can be set up and enabled with a checkbox in the result layout options section of the search. The title is also translatable in the same way that the Search Labels are translatable (see above).

7.8.4 Calendar View Improvements in Search

Because the Calendar View in Search can now show the planning in the project based on "Project Status Due Dates", we took the opportunity to improve the Calendar View. Quite a lot of things changed:
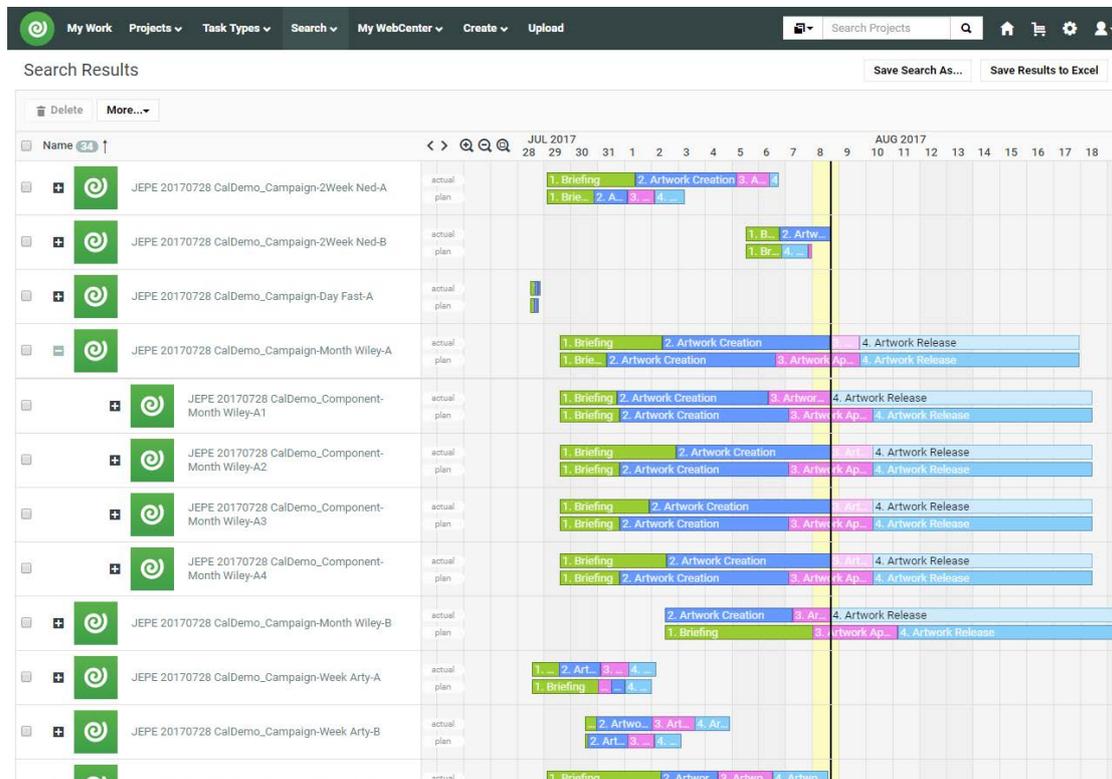
Some highlights:

- From the screenshot you can see it is now possible to simply have the project status name shown on the Project Status bars in the Calendar. Previously you could only show number on it.
- In the screenshot, no due dates are shown. There is now an option to hide the due date making the view cleaner.
- The colors of the Project Status bars are adjusted. The label on the bar is now easily readable when using a dark Project Status color.
- The planning bar is now also shown in the project status colors (before this was shown in grey).
- There is now also a clear indication of what each bar represents, labels in front of the bars mentioning "plan"/"actual".
- We made it easier to recognize weeks by showing the weekends in a grey color. The current day is also highlighted in yellow.
- The header of the Calendar View has also gotten a refresh. It's now easier to see the relevant dates.
- The calendar header will now stay visible when you scroll down the page.
- But maybe the biggest change is the way you interact with it: You can now drag to pan the view in the calendar or scroll to zoom into a certain area of the Calendar.
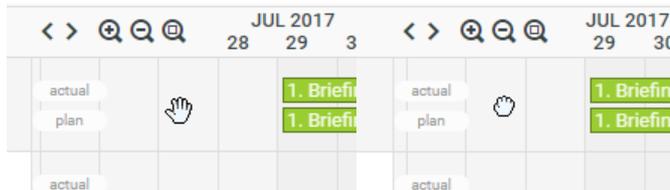
7.8.5 Support for Calendar View in Drilldown Searches

It is now possible use the Project Calendar in drilldown searches. This is very useful to compare the planning of the parent and child projects.

7.8.6 Searching for values which are not filled in

WebCenter 18 introduces a new search keyword, EMPTY. The EMPTY keyword (all uppercase) allows you to search for any documents/projects/tasks where some text attribute or other text property is not filled in. This way, you can for example search for projects that are not derived from a template (so the project template field is EMPTY) or projects/documents/task where a certain attribute/spcification is not filled in (that attribute/specification is EMPTY).
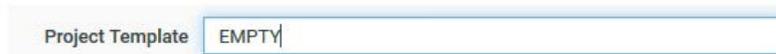
Note that the EMPTY keyword will find all the projects where a specific attribute is not filled in. This means it will also find the projects where the attribute is not even available in the Attribute Category. Keep this in mind when searching with EMPTY and combine with the Attribute Category filter if needed to only find the projects you are looking for.

Currently this functionality is not yet available for date properties/attributes, restricted sets or numeric properties/attributes.

By combining with the OR keyword, you can also search for properties which are empty have a specific value: EMPTY OR some value.

7.8.7 Search Save to Excel from all places

WebCenter now supports Save to Excel from all places where you can display a search and do actions on the results.

The screenshot below shows a custom search in the project details. There is now a small Save to Excel button in the right side of the table header.
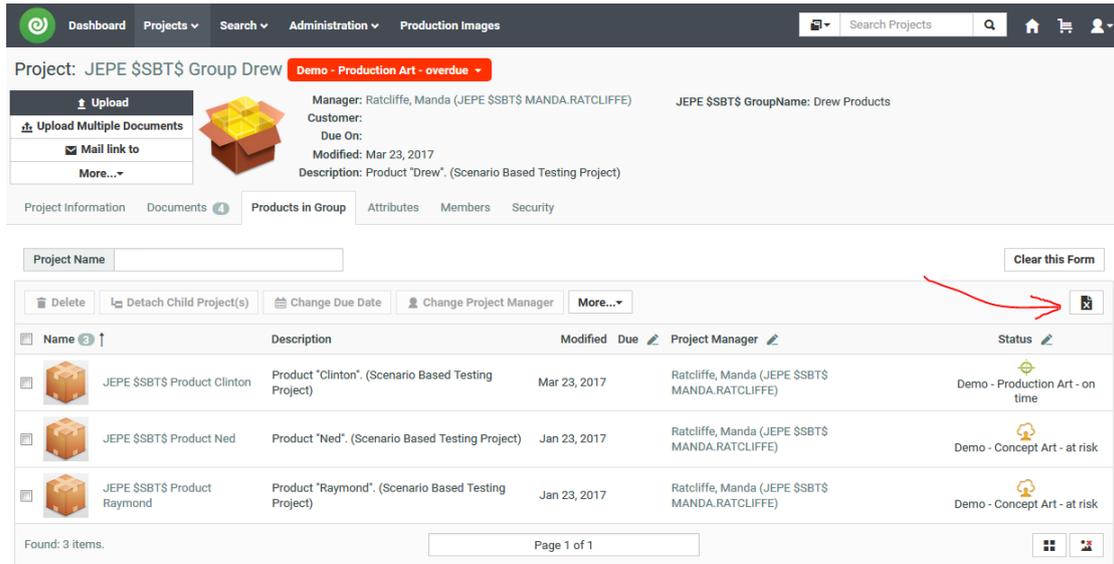
Note that you can still disable this feature in your saved search as you could already before. The only difference is that it will now actually show up in all places when you have it enabled in the saved search.

7.8.8 Save to Excel progress feedback

Downloading an Excel might take some time if the dataset is large. Most of this time is spent on the server to generate the Excel and put all required information in it.

During this time, WebCenter will now show feedback on the progress to indicate when the actual download will start.
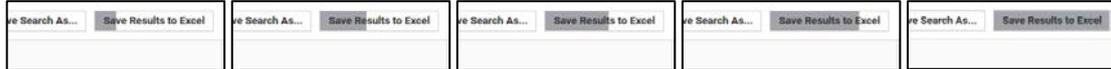
Known limitation: currently this progress indicator is not available in Safari.

7.8.9 Clear this Form available from all places

Next to Save to Excel, we also made the "Clear this Form" functionality available in all places where a saved search with a parameter panel is displayed.

For example, in My Work you get a small clear button:

7.8.10 Document Search Drilldown

Next to the Project Search Drilldown introduced in the previous version, you can now also configure a drilldown in a document search.

As an example, you could have a document search and when you drilldown you see related documents. Or you could have a document search and when you drilldown you see all the tasks linked to that document.

Screenshot: showing the tasks a document is linked to when drilling down on a document.

When you have a document search inside a document search you can select the "Apply Current Column Layout" option to make both searches show up as one table. In case you do this in combination with searches of different document types, the child search might show grey cells for columns that are not supported.

In the setup of the child search, the [Document Version ID] SmartName can be used in places where you can normally filter on document name (the Task Documents field, Document Reference Attribute fields and the new Referenced Documents field – see section 7.8.12.7 below). The advantage of using the Document Version ID SmartName over the Document Name SmartName is that the id is unique for the document, while documents with the same name might exist. If you would for example want to show the tasks which are linked to a document, using the [Document Name] SmartName would not only show the tasks linked to that document but also tasks which are linked to some different document with the same name.

7.8.11 Faceting on Numeric Attributes

In this version, WebCenter supports faceting on all numeric attributes and some other numeric fields.

This means you can facet on float & integer attributes and attributes with units.

Above: examples of faceting on numeric attributes.

All facet components can be used, so you can put these in facet graphs, facet lists or facet counter bars.

To set it up, an admin can simply add one such component to the Search Dashboard and pick a numeric attribute as the facet and define which ranges he wants to show in the facet component. Adding these ranges is required. Without them the facet will not show any values. The ranges will be shown in the defined order.

The setup of the ranges can be seen in the screenshot below. The user can either define the left or the right boundary of the range or both. A label will be automatically generated, but a different label can be choen. A color can be chosen to for a given range in facet graphs, facet counter bars or facet lists (see also the "Custom Values and Order for facets" section).

Note that for attributes with units, a conversion from Metric to or from Imperial will be done. The generated label will adapt and show the values according to the unit preference of the user. Note that only automatically generated labels will change when the unit changes. If the admin has provided a custom label, nothing will change.
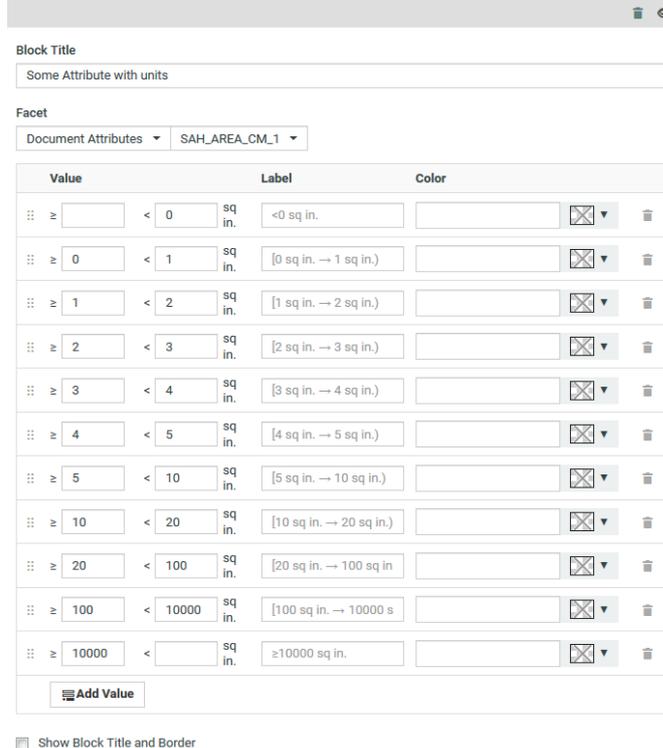
7.8.12 Faceting on Numeric and Text Document Metadata

Next to faceting on numeric attributes, we also enabled faceting on some of the document metadata. Most of the standard metadata fields are now available for faceting. You can now facet on Length, Width, Depth and Board Name for ArtiosCAD Design or Manufacturing documents. You can facet on Horizontal/Vertical resolution and width/height for Images etc. New search criteria

7.8.12.1 Reason for Rejection

It is possible to search for Reason for Rejection. There are two options available:
- Reason(s) for Rejection – searching only the latest version
- Reason(s) for Rejection - Any Version – searching all versions

Both fields support 3 different options:
1. Default (search both reason category and reason value)
2. Category
3. Reason

Faceting is supported for all 6 combinations allowing for valuable reporting on rejection reasons.

7.8.12.2 Document Creation Date

The document creation date is now also available as a document search criterion. You can search on it, make it visible in the results, use it in a facet graph, etc.

7.8.12.3 Version Count

Version Count is now available as a document search criterion.
You can search on it and make it visible in the results.
It is also possible to facet on this field. More details on how to set it up can be found in the "Faceting on Numeric Attributes" section above.

7.8.12.4 Approval Version Count

Approval Version Count is now available as a document search criterion.
This criterion searches the number of Document Version(s) on which an Approval Cycle was started.
You can search on it and make it visible in the results.
It is possible to facet on this field making it a valuable "first time right" reporting option.

7.8.12.5 Document Version Size

The Version Size criterion is available for all document types. It allows searching, sorting and faceting on the size (in bytes) of document versions that are referenced from a project (typically the latest uploaded version).
More details on how to set up faceting can be found in the "Faceting on Numeric Attributes" section above.

7.8.12.6 Last Version Comment

Last Version Comment is now available as a document search criterion.

7.8.12.7 Referenced Documents

In the referenced documents field, you search on any document reference attribute/specification of a project/document/task. Instead of having to pick a specific document reference attribute/specification, you can simply search through all of them.
This field cannot be made visible. If you want to make the information visible, you will have to make the specific document reference attributes/specifications visible.
It is also not possible to search for EMPTY in this field.

The main use of this field is probably with SmartNames. A search which has a [Document Version ID] SmartName in this field can be used in document details menu to replace the "References" tab with a search. This will allow for more configurability of the "References" page. Alternatively, you can also use this in a document drilldown search. More details on the [Document Version ID] SmartName and Document Search Drilldown can be found in section 7.8.10.

7.8.13 Other Search Improvements

7.8.13.1 Added "before/after now" as filter options for date criteria so you can look for "overdue tasks"

All dates in search (except for the ones which can only be in the past) now have a new filter option, "before now" in the dropdown. This option allows you for example to find all tasks which are overdue (Due before now). Before you could only use "before today" which was not showing the items which already became overdue today.
Next to "before now" there is also and "after now" option and some other options related to this under the "more options" item.

7.8.13.2 Search Results Save to Excel in Imperial Units

When saving Search Results to Excel, the results are always in metric. This is still the default behavior, but it is now possible to configure this behavior inside a saved search. In the layout options there is a new option that allows you to now also export the results in Excel in imperial Units or set it to follow the user preferences.

7.8.13.3 Search Results Save to Excel with configured column order

In previous versions of WebCenter, the order of columns for Search Results saved to Excel was not configurable and always the same. E.g. for a project search, the "Project Manager" always came after "Description" and before "Modified", "Created" or "Due". Attribute columns were always the last columns and Roles came right before that. A similar order exists for document and task searches.

In WebCenter 18.0 however, we introduced a new option to change this behavior:

Now you can choose to have "Save Search Results" functionality use the configured column order. When you choose this option, the order of the columns in the Excel will be the same as the order of the columns on the Search Results page. Everything will follow the same configured order. This is now the default for new searches.

Existing saved searches will have the new option set to "Use System Order". That way the order of the columns in the exported Excel will stay the same as before.

7.8.13.4 Extended Project Status Color Label support

The Project Status "Color label" option is now also available in document and task searches. It can now also be used together with the Project Calendar.

7.8.13.5 Indication of Saved Searches with a Dashboard

Saved Searches which have a Search Dashboard configured are indicated with a dashboard icon on the saved search overview page.

7.8.13.6 Improved support for exporting Text Content statements in Excel from Search

When exporting search results of a text content search to Excel, the Excel will now show rich text formatting.

Known limitation:
Rich text is only supported when exporting search results with less than 2500 results. The rich text formatting will not appear when exporting more rows. In that case the Excel will show the text without styling.

7.8.13.7 Support for showing the time of the "Project Due/Modified/Created date" in the Search Results

In WebCenter 18.0 we also added an option to show the time in the search results for the "Project Due/Modified/Created dates". An admin can find this option on the Project Search Setup Page for each of these dates under the "additional configuration" for those rows.
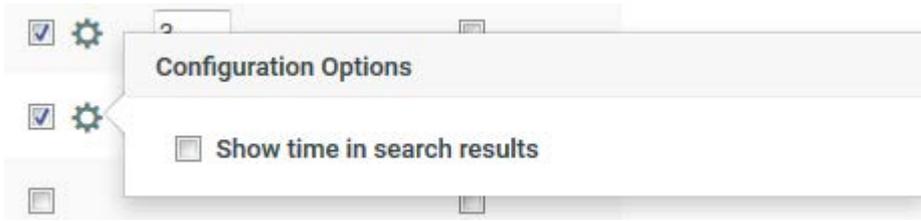
7.8.13.8 Making "inks" and "characteristics" visible in the design panel

It is now possible to make "inks" and "characteristics" visible in the design panel so you can filter on them from the Search Results page.

7.8.13.9 Default drilldown option

To set up drilldown in Search, you generally have to select a saved search. Often however, in a project search, you simply want to drilldown on child projects. In WebCenter 18.0, we introduced a default Built-in Search for the drilldown which is now visible in the UI. This default searches on the child projects in a project search and on the documents that reference the document in a document search.

Project Search drilldown setup:
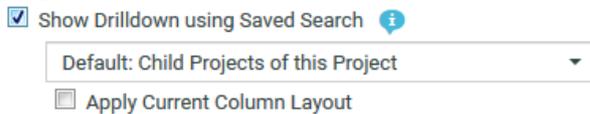
Document Search drilldown setup:
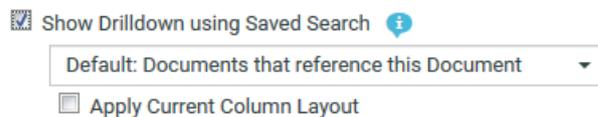
7.8.13.10 Improved dropdown with available filters

In the filter design panel in Search, you can set up a list of available filters. Selecting such a filter in the dropdown on the Search Results page would make the filter visible so you could use it to find what you are looking for.

In WebCenter 18.0 we improved this dropdown. The items in that list are now grouped in categories and you can now search on it by typing part of the name. This is especially useful for long lists of attributes.
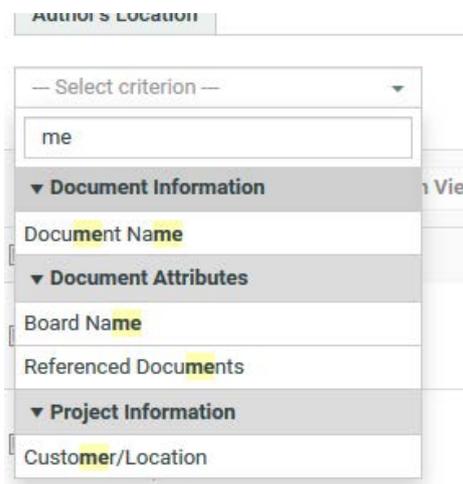
7.9 Search Crawler Improvements

In this version we have further improved the stability of the Search Crawler.

7.9.1 Search Crawling and Database outages

The Search Crawler will now be able to handle a range of database connection problems. This will be especially helpful on systems with unstable connections to the database. If the crawler cannot connect to the database at some point during indexing, it will detect this and put the crawling on hold until it can connect to the database again. Once the database is running again the search crawler will continue where it left off.

7.9.2 General Search Crawler stability improvements

Extra checks put in place to avoid that Search Crawler gets into a state from where it cannot recover. Previously certain critical errors meant the Search Crawler stopped working altogether and the servers processes had to be restarted. With the changes made, the Search Crawler will be able to recover in all situations. Once it recovers, it will continue processing the crawling queue.

7.10 Project Details Improvements

7.10.1 Project Template and Project Source

The project information page has been extended to show both the Project Template and the Project Source of the project.
Contrary to previous version the Project Template field will now show the original template from which the project is created. The Project Source field will keep track of the project / template from which the project was copied.

An example to explain this: the following Projects are in the system: P1, P2, P3, P4, P5 and Template T1.
- P1 is created from T1
- P2 is created from P1
- P3 is created from P2
- P4 is created from Blank
- P5 is created from P4

Project / Template	Project Template	Project Source
T1	None	None
P1	T1	T1
P2	T1	P1
P3	T1	P2
P4	None	None
P5	None	P4

7.10.2 Project Creation Document Rendering setup

You can now configure the rendering details for the document section of the Project creation page. To do this, the Project Configure section has been extended with a new tab to setup the Document Rendering.

7.10.3 Upload documents by drag and drop

It is now possible to upload documents to a project by dragging and dropping files from your file browser to the documents table or folders of a project.

7.10.4 Java Multiple Upload applet has been removed

The Java applet, that was used to upload multiple documents at once, has been removed in favor of the HTML5 uploader. The relevant options on the "My Preferences" and the general admin preferences page have also been removed.

7.10.5 Add member improvements

Adding new members to a project has been made much easier by allowing users to be created directly from the Project Creation, Add Members and Manage Roles pages. The user experience is now the same as used for the dynamically invitation of new document approvers, added in WebCenter 16.1.

7.10.6 Document Owner improvements

In WebCenter 18 all actions to add a new document to a project (copy, move, upload, …) will have the person performing the action as the owner of the document.

7.11 Project History Improvements

In WebCenter 18.0 a lot of changes were done in the Project History area. The main goals of these changes are:
1. Improve usability and readability of the comments logged in the Project History.
2. Add the logging of other events to the Project History.

7.11.1 Added new events

WebCenter 18.0 includes some new events that are being tracked in the Project History.
- Approval Stopped: keep track of when an approval cycle is stopped and by whom.
- Approval Setup changed: keep track of any changes made to an approval setup (the changes of the project/folder approval setup will be logged under Project Info changed / Project Folder changed).
- Project Folder changed: keep track of any changes made to a Folder.
- Project Member removed: keep track of any removal of Users in a Project.
- Document downloaded: keep track of who downloaded a Document.
- Task Document(s) changed: keep track of changes to the Documents of a task.
- Task Checklist changed: keep track of any changes done to the Checklist of a task.

7.11.2 Added extra information

In WebCenter18.0 some of the existing events (events that were added before this version) were extended with extra information e.g. the folder to which a document is uploaded was added into the history message, the role/group to which a user was assigned when approving was added …

7.11.3 Continued messages

In previous versions of WebCenter whenever the maximum amount of characters supported was exceeded, the messages were split into multiple lines and a "(cont x)" prefix was added to the message.
In WebCenter 18.0 all messages belonging to a specific event are concatenated together automatically which greatly improves readability of longer messages.
Note: This improvement is also made in the User History.

7.11.4 Improved readability

Readability is improved by adding extra formatting to history messages. This means that extra line breaks are added to split longer message over multiple lines.

7.11.5 Event date/time stamps

All records in the project history that are triggered by the same event will always show the exact same date/time stamp. This makes it easy to group history records to a single event.

7.11.6 Improved consistency in the Project History

Consistency in the Project History was improved.

- Messages related to document events, show the document version / revision in a consistent manner.
- The format in which user(s) are displayed in the Project History is made consistent.
- The names of the events are now the same on all pages in WebCenter.

7.12 Authentication and Digital Signature Improvements

7.12.1 More complexity settings for WebCenter passwords

Administrators now have even more control over which passwords are accepted by the system for WebCenter managed passwords (Basic authentication). When the complex password option is turned on in Admin > Passwords, the administrator can configure two new options:

- Minimum password length (default 8 characters) can be used to specify the minimum number of characters that can make up the password of a user in WebCenter. The allowed values are 6 to 16. Important: making changes to this option will expire all the passwords in the system.
- Enforced password history (default 1) reflects the number of passwords that are remembered by WebCenter. A WebCenter user can only reuse an old password when it does not match any of the remembered passwords. The value entered should be between 1 and 20.

7.12.2 Require password when completing tasks

From WebCenter 18.0 onwards it will be possible to specify for each task type whether the password must be retyped when completing the task.
When this option is enabled the user, who is completing the task will always have to re-enter his/her password when he/she is completing a task in WebCenter.

Whenever a task is completed after entering the password, this will clearly be visible in WebCenter by a signature icon.
The project history was also extended to state that the task was completed with signature.

7.12.3 Approval with Signature

When a document approval action (Approve/Reject actions) is done with signature (password), then the Project history will clearly indicate that the approval is done with a signature.

For PCM Text Content or Table Content documents, if a language approval is done with signature (password), then the document action history will clearly indicate that the approval is done with a signature.

This indication is only applicable for the newly submitted approval actions from WebCenter 18.0 onwards.

7.12.4 PDF Approval Stamp Improvements

It is now possible to specify whether the Approval Stamp – an extra section with detailed approval information for PDF documents with performed approval actions, should be added to the PDF in portrait (default) or landscape mode. This information will only be added to a downloaded PDF when the option is turned on.
When there is an approval role/group set as approval user (approver of type "All of Role/All of Group"), the original role/group is added to the PDF approval stamp when downloading the document.

7.12.5 Digitally Signatures for SAML users

When a user authenticates over SAML SSO, WebCenter does not know the password of the user. Only the Identity Provider of the user's organization can check the password of the user. This poses a problem when the digital signature of that user is required in order sign an approval or to complete a task. In previous versions of WebCenter, no password re-type would therefore be asked for SAML authenticated users.

WebCenter 18.0 offers a better solution through the new "Allow alternative password" option. When this global option is enabled, WebCenter allows users to sign approvals or tasks with their Basic Authentication or LDAP Authentication passwords rather than their SAML password. When a user provides a password, WebCenter will check if it's a valid password for one of the other configured authentication instances for that user.

If the user has no authentication instance configured that can validate a provided password, the user will be prevented from completing his task or approval when this is required. With this feature enabled there's a guarantee that the user digitally signed the approval or task when this was required.

The following two tables indicate when WebCenter requests digital signatures for task completion and approvals under different configurations:

Approval of Documents			
	(Login through Basic) **Only Basic Password**	(Login through SAML) **Only SAML Password**	(Login through SAML) **SAML Password and Basic Password**
Password Approval Required Alternative Password Allowed	Ask Basic Password	Can not approve	Ask Basic Password
NO Password Approval Required **NO** Alternative Password Allowed	No password asked	No password asked	No password asked
Password Approval Required **NO** Alternative Password Allowed	Ask Basic Password	No password asked	No password asked
NO Password Approval Required Alternative Password Allowed	No password asked	No password asked	No password asked

Completion of Tasks			
	(Login through Basic) **Only Basic Password**	(Login through SAML) **Only SAML Password**	(Login through SAML) **SAML Password and Basic Password**
Task Password Required Alternative Password Allowed	Ask Basic Password	Can not complete	Ask Basic Password
NO Task Password Required **NO** Alternative Password Allowed	No password asked	No password asked	No password asked
Task Password Required **NO** Alternative Password Allowed	Ask Basic Password	No password asked	No password asked
NO Task Password Required Alternative Password Allowed	No password asked	No password asked	No password asked

7.13 Attribute Category improvements

7.13.1 Hide Time from Date/Time Attributes

In the details panel of a Date/Time Attribute on the Attribute Category Edit Page, there is now an option "Hide Time". When this option is checked, only the date will be shown. When unchecked, both date and time are shown.

7.13.2 Apply Row Span to an Attribute

For each cell in the Attribute Category, there is now an option Row Span. This option allows having an Attribute span over multiple rows as shown in the example below:

Briefing		Due Date	📅
		Title	
		Budget	
		Reason	
Show Rich Text Controls		Resources	

7.13.3 Style Rules

It is now possible to have a style based on a Rule. The style rules work in the same way as visibility rules and the configuration part is largely the same. The only difference is that depending on the outcome, a Style can now be selected instead of the visibility option.
Example: if <Condition> then the cell style is **Green**, else, the cell style is **Red**.

7.13.4 Use JavaScript in Visibility/Style Rules

When creating a rule for visibility or styles, it is now possible to add a piece of JavaScript to have more freedom. This way, it is possible to e.g. calculate the outcome based on multiple values.
The JavaScript rules uses the same syntax as the JavaScript buttons, e.g. you can use att['attName'] to access a specific attribute.

7.13.5 Chained Visibility/Style Rules

When creating a rule for style or visibility, you can create another sub-rule instead of specifying a Style or Visibility option. This way, you can create rules that have more than two possible outcomes.
Example:
Rule: if <Condition> then the cell is **Hidden**, else, execute **SubRule**
SubRule: if <Condition> then the cell is **Required**, else, the cell is **Editable**

7.13.6 Changes in "Keep session alive"

When the "Keep session alive when user is inactive" flag is checked in the Attribute Category, the session will never expire when a user has an attribute Category open.
When it is unchecked, the page will check the activity of the user. As long as keyboard actions or mouse movement are detected, the session will be kept alive.
When the session has expired and the user returns to his screen, a popup will be shown, telling the user that the session expired and giving the option to log in again.

7.13.7 Multi-language labels

It's now possible to give a localized label to an Attribute. That label can be given multiple translations. The appropriate translation will then be used to display the label to the user based on his preferred language.

When an Attribute is added to an Attribute Category, the label with translations will automatically be applied in the Category. However, it is also possible to overwrite that label in the Category. When overwriting the label in the Category, it is possible again to define it in different languages.

A similar translation feature is also introduced in Search. More details about the multi-language labels can be found in the section "Internationalize Labels for Search".

7.13.8 Select and apply settings to multiple Attributes at once

When editing the Attribute Category, it is possible to select multiple attributes using the CTRL and the SHIFT keys. When multiple cells are selected, it is possible to edit the common details for all of the selected cells.
Depending on the type of the selected cells, it will be possible to change the *label position*, the *Style*, the *Style Rule* and the *Visibility Rule*.
It is also possible to add or delete multiple cells at once and to move multiple selected Attributes together.

7.13.9 Copy-Paste Support when editing a form

When editing the Attribute Category, it is possible to copy your selection to the clipboard by either using the generally known keyboard shortcuts (Ctrl/Cmd+C, Ctrl/Cmd+X, Ctrl/Cmd+V), or by using a context menu (right click).

You can paste a copied selection in either another view of the same category, or in another category. It is possible to copy cells between Attribute Categories and Tasks, and it is even possible to paste the content on another system (with the limitation of Document Source Configuration of Document Reference Attributes, which can only be copied on the same system).

When pasting the Attributes in your Attribute Category or Task, the Category will detect any conflicts and give the user the appropriate options to handle them.

7.13.10 Update referenced Document(s) to latest version

It is now possible to easily update the references for outdated documents version to point to latest version of the documents. The attribute category render configuration has an option to enable or disable this feature. If enabled, a user with change permission will be able to update a reference to the most recent version of a document with a click of a button.

7.13.11 Multilevel JavaScript buttons

In WebCenter 18, the JavaScript Buttons in the Attribute Category have been extended to give access to attributes in the Attribute Categories of referenced Documents.

To access the attributes of the Attribute Category of a referenced Document, use the newly introduced operator docref["Document Reference Attribute Name"].

This operator returns a JavaScript object with following properties:
- count – Number of documents referenced by the selected Document Reference
- docbyname("Name of the Document") or docbypos(Position of the   document) – Returns a JavaScript object representing the Attribute Category of the selected Document.

Properties of the Attribute Category object of the selected Document:
- att["attribute name"] – Get the value of the specified attribute.
- setatt("attribute name", "value") – Set the value of the specified attribute
- prop["reference property name"] – Get the value of the referenced property
- setprop("reference property name", "value") – Set the value of the referenced property
- docref["Document Reference Attribute Name"] – See above, this property allows to go to the Attribute Category of a referenced Document.

Another operator that was introduced for this functionality is "parent". It allows you to work with the parent Attribute Category (Category from where current Document is being referenced).

It returns a similar JavaScript object as "docref" with the following properties:
- att["attribute name"] – Get the value of the specified attribute.
- setatt("attribute name", "value") – Set the value of the specified attribute
- docref["Document Reference Attribute Name"] – See above, this property allows to go to the Attribute Category of a referenced Document.
- parent – This property allows to go to the parent Attribute Category (Category from where current Document is being referenced).

Using both operators in combination makes it possible to iterate over the whole tree of Attribute Categories of referenced Documents.

Notes:
- It is not possible to change the value of Document reference attributes
- It is not possible to access / change attributes that are not loaded on the page at the time the JavaScript Button is executed.

- The expected result of the JavaScript logic should not be dependent on the order in which the JavaScript Buttons are executed.

7.14 Form Document Table Improvements

7.14.1 Expand or collapse columns

Tables of referenced documents can be very complex to view especially when configured to show multiple wide columns. To avoid this situation and to improve visibility, the "Expand or Collapse columns" feature is provided. User can focus on the columns he/she wants to work with by collapsing all unwanted columns.

7.14.2 Option to open document references in new tab

Document references can now be configured to open the referenced document in the same or a new tab.

7.15 Company/Location Merger

An administrator can now easily merge companies and/or locations.

The Company merger can be found in the "Companies" section in WebCenter. On this page, a new "Merge Companies" button is introduced. Merging companies together will also update all references from the old companies to the new one in WebCenter.

The Location merger is can be found in the "Locations" tab of a company. On this page, a new "Merge Locations" button was introduced. Merging locations together will also update all references from the old locations to the new one in WebCenter.

Known limitations:
- The merging companies or locations functionality does not update the search index. After merging companies and locations is done, a re-index should be scheduled to keep document and project search working as expected. If no re-index is done after using the merge functionality, search will not be able to find all existing documents/projects by the new company/location name.
- Changes done to the Project customer by merging companies/locations together will not be tracked in the Project History of the affected Project(s).

7.16 Download ArtiosCAD BOM reports from WebCenter

7.16.1 ArtiosCAD supporting WebCenter BOM reports

The ArtiosCAD Enterprise version installed with WebCenter 18 supports download of ArtiosCAD (Project) Bill of Materials reports. Refer to the ArtiosCAD Enterprise documentation on details of how to enable this type of output format for use within WebCenter.

7.16.2 Non-cached ArtiosCAD Download formats

To support dynamic ArtiosCAD download formats (download formats depending on WebCenter document meta-data or project data), the WebCenter configuration has been extended with an option to not cache specific download formats.

Examples of dynamic download formats where turning caching off could be needed are Bill of Materials reports and reports that are based on meta-data that can be edited directly in WebCenter (without uploading a new CAD file version).

The CAD Download Formats for a given document version are by default generated and cached in the system when first downloaded by a user. Subsequent users downloading the same download format will get the same cached file (so no re-generation). The caching

behavior is controlled per CAD document type and download format. Cached downloads will be faster, but will not adapt to any changes made in e.g. document or project meta-data after the download was cached for that document version. If this is a problem, it is possible to turn caching off for this format (re-generate on each download)

To turn caching off or on for a given document type and download format, go to the Admin > CAD > CAD Download Formats page. Each download format has a checkbox "Cache" per CAD document type. There is no Cache option for the ArtiosCAD format (native document) as this format is always available. Changing a Cache checkbox state to off and saving the setup will disable caching and delete (mark for delete by cleanup tool) any cached data for this download format and document type system wide.

7.17 Changes in External Web Connections

Some changes were made to external web connection to improve the security in WebCenter.

7.17.1 *requesturl* parameter no longer available

As of WebCenter 18.0, it is no longer possible to call a URL through External Web Connections without registering them as an External Web Connection configuration. Parameters of a URL can still be added dynamically by using the new parameter *requestparams*.

7.17.2 New parameter *requestparams*

With the new parameter *requestparams*, it is possible to dynamically add parameters to a URL configured in the External Web Connections. When this parameter is added to the calls, the content will be appended to the URL in the parameters section.
The expected format for this value is *parameter1=value1&parameter2=value2&…*
Note that when using *requestparams* in a URL, proper URL encoding should be used.

Example:
We have an External Web Connection *MyConnection* with URL http://action.myservice.com and we call:
GetExternalWebInfo.jsp?ExternalWebConfigName=MyConnection&requestparams=acti on%3Ddosomething%26asrole%3Dmyrole   (URL encoded "action=dosomething&asrole=myrole")

This will make a call to:
http://action.myservice.com?action=dosomething&asrole=myrole

7.18 Asset Management (Platform for Brands) Improvements

7.18.1 Video View, Approve and Annotate

When importing Video files from a video enabled MediaBeacon (DAM) server in a Platform for Brands configuration, it is possible to view them directly in the WebCenter HTML5 Viewer. As with any Document, it is possible to use navigation and measure tools and you can approve this video document directly from the viewer.

A progress bar and some extra controls like play, pause, fast forward, etc. are added to browse through the video. Some of these actions are also available through hotkeys.

It is possible to create annotations in a video. These will be linked to a certain frame or time interval within the video. When playing the video, the annotations will only be displayed at the correct time. When selecting the annotation in the Annotation Widget, the video will jump to the time linked to the annotation. To get a quick indication of where in the video annotations were placed, the annotations are also displayed in the video's time line. The annotation report for video documents has thumbnails of the frames to which annotations were added.

A new widget for key frames is added to give you an overview of the complete video. You will see previews of certain points in time in the video and will be able to navigate there by clicking that preview.

If MediaBeacon is configured to generate multiple sizes for the video then you can also switch between the available qualities.

7.18.2 Asset link information

The document details page of a document will now show more information if the document originates from an external Document Asset Management system. The general information tab will show the name of the external system (with hyperlink) and the ID of the original document on this external system. This is also indicated by an icon next to the name.

7.19 Packaging Content Management Improvements

7.19.1 Side by Side Display of multiple languages.

When displaying the master and translation languages for Text Content documents in a documents table, the table can be configured to display all or a selected set of available languages side by side in the table.
This can be configured in the **Edit Render Configuration** pop-up window by an admin user. Select the **Show Side by Side** check box to turn this option on.

7.19.2 Add/Remove languages from the Text Content widget.
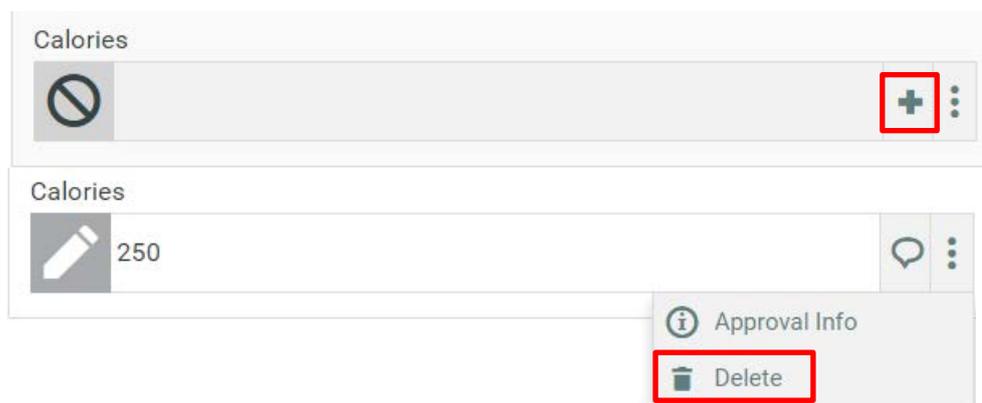
A user with the right permissions can now add or remove a language to a Text Content or Table Content document directly from the Text Content widget (by clicking on the '+' or 'Delete' buttons).

7.19.3 XLIFF Import Node/Manual Improvements

The XLIFF Import node gives more detailed feedback when failing to import translations. Similarly, when a user imports an XLIFF file manually, a new feedback page is shown where the user can take additional actions before completing the import action.

7.19.4 XLIFF Support for Comments

It is now possible to include text statement comments in the exported XLIFF file. This will help translation agencies know whether a statement needs any special handling. Similarly, if an imported XLIFF document contains additional new comments, they will be added to the appropriate language when importing.

7.19.5 Table Content Grid Layout

With the new Grid Layout and Grid Preview feature in Table Content, it is possible to create your own custom tables with multiple languages. Hence you are no longer limited to the static (FDA) previews that ship with WebCenter by default. This new grid layout allows you to:

- Define the number of columns and rows for the table
- Edit cells and rows using Drag and Drop

7.19.6 Import Dynamic Graphic Node

A new workflow node, Import Dynamic Graphic makes it possible to extract Dynamic Art images and symbols from a Dynamic Art tagged PDF or Adobe Illustrator document. The node will search for these (proxy) images and symbols or, if not found, create a placeholder for them. As a result, the artwork file will reference the matching/created images and symbols. As part of the packaging update flow, these images and symbols can be replaced/added/removed and later exported to a GS1 XML file to be imported back into Adobe Illustrator using the Esko Dynamic Content plug-in.

7.19.7 GS1 Export support for Graphic Documents

The GS1 Export function has been extended to also generate GS1 XML for Graphic Documents (Images and Symbols) that are referenced through document references from the (exported) artwork file.

7.19.8 Import Dynamic Barcode Node

A new workflow node, Import Dynamic Barcode extracts Dynamic Art barcodes from a Dynamic Art tagged PDF or Adobe Illustrator document. The node will create a placeholder document for the barcode and assign the barcode information to attributes of this placeholder document. As part of the packaging update flow, this barcode document can be modified/replaced/added/removed and the information can be exported back to a GS1 XML file to be imported back into Adobe Illustrator with the Esko Dynamic Content plug-in.

7.19.9 GS1 Export support for Barcodes

The GS1 Export functionality has been extended to also generate GS1 XML for Barcode documents that are referenced through document references from the selected artwork file. A document is designated as a Barcode document if it contains the following hardcoded Barcode attributes: BARCODE_TYPE, BARCODE_BASECODE and optional BARCODE_COMPOSITE_COMPONENT.

7.19.10 SmartText in Text Content Documents

SmartText is new way of re-using an already existing text statement in other text statements. This is mainly useful, when creating a Text Statement that contains multiple text statements.

Following is an example of a Warning Statements paragraph:

Stop the use and ask the doctor if:
- Symptoms worsen or last for more than a week
- You have high fever or headache that doesn't go away
- You cough up thick yellow and green mucus
- You develop a rash

In this example there are multiple individual statements that make up one larger statement on a package. Each of these simple statements can be contained in an individual Text Content document and can be re-used in multiple other Text Content documents. SmarText variables are very similar to inline text SmartName variables. They are static variables (colored blue) that can be inserted anywhere in formatted text.

The example of the Warning Statements paragraph above could be constructed like this:

> **Stop the use and ask the doctor** if:
> - [Symptoms worse …]
> - [You have high fev…]
> - [You cough up thic…]
> - [You develop a rash]

7.19.11 Auto Suggest Smart Text

While typing in a Text Content widget, you can now configure WebCenter to analyze the text typed so far, search through already existing text documents and suggest to reuse these statements using SmartText. You can configure from which set of Text Content documents suggestions are made by specifying a Saved Search.

7.19.12 Additional Permission for Editor Role

In previous releases, a user with "Editor" permissions couldn't edit Translation text before the Master Language text was signed-off. To make the collation of text more flexible, it is now possible to edit the Translation text even when the Master Language text is not signed-off yet.

7.19.13 Comment Modal

The way you comment on Text Statements has been improved. Clicking on the comment icon now opens a modal popup where the user can add any number of comments and view already added comments. These comments are saved when document is saved.

7.19.14 New SmartNames in Workflow

The following new Text/Table SmartNames are now available in workflows:

- Content Status - This is overall status of the content document.
- Language Status – This is the status of a particular language
- Text Content Value – This SmartName, applicable only for Text Content documents, resolves into the actual text content value.
- Table Content Value – This SmartName applicable only for Table Content documents, resolves into the actual table element value.

7.19.15 Product Content Sheet

A Product Content Sheet (PCS) is a high-level document that describes the contents of multiple related products and their components. A Product Content Sheet can be applicable to multiple related artworks/products. Contents are often reused (text, recipes, images ...) between products and artworks and hence they are managed using a content sheet to avoid having duplicate documents. The intended uses of the individual content pieces in the content sheet are stated using Reference Property Filters. Reference Property Filters determines the context in which the content of the document can be used. The Reference Property Filters are applied to properties that are either part of document or project attributes

The table below shows an example of how to specify the contents for multiple products and distinguish them by adding Reference Property Filters. The table shows contents being referenced to PCS where Output, Size, Flavor are the Reference Property Filters.

Document Name	Output	Size	Flavor	Master Content
Marketing	Single		Chocolate	"Get yourself warm with

Copy 1	Pack			Chocolate"
Product Variant 3	MultiPack			"Contains both Strawberry and Chocolate"
Marketing Copy 3			Chocolate | Strawberry	"Sweetest taste ever!"
Serving Size 3		500g		"500g"
Recipe 1			Chocolate	<Recipe for the chocolate flavored>
NFT 1	Single Pack	100g	Chocolate	<NFT for the 100g chocolate flavored>

To identify the contents for the Multipack package that contains both 500g Chocolate and Strawberry products for a campaign, following are the Reference Property Filters:

Output	Size	Flavor
MultiPack	500g	Chocolate | Strawberry

And following referenced contents are found matching for the product:

Document Name	Output	Size	Flavor	Master Content
Product Variant 3	MultiPack			"Contains both Strawberry and Chocolate"
Serving Size 3		Multi Pack Size 1		"500g"
Marketing Copy 3			Chocolate | Strawberry	"Sweetest taste ever!"
Recipe 1			Chocolate	<Recipe for the chocolate flavored>

7.20 Customization and Look and Feel improvements

7.20.1 Use Fixed Navigation Header

There now an option to keep the navigation menu fixed to the top of the screen (rather than scrolling away when moving down a long page).

7.20.2 New default thumbnails

A set of new, modern default document and project thumbnails have been added. The new thumbnails are store in SVG (vector) format to ensure perfect rendering at any size.

7.20.3 Notification Look and Feel

We have reworked the Look and Feel of the notification customization example. To enable the fresh look and feel for notifications, copy the contents of the example folder to custom folder (see customization guide).

You can customize colors and styles in customize.xsl.
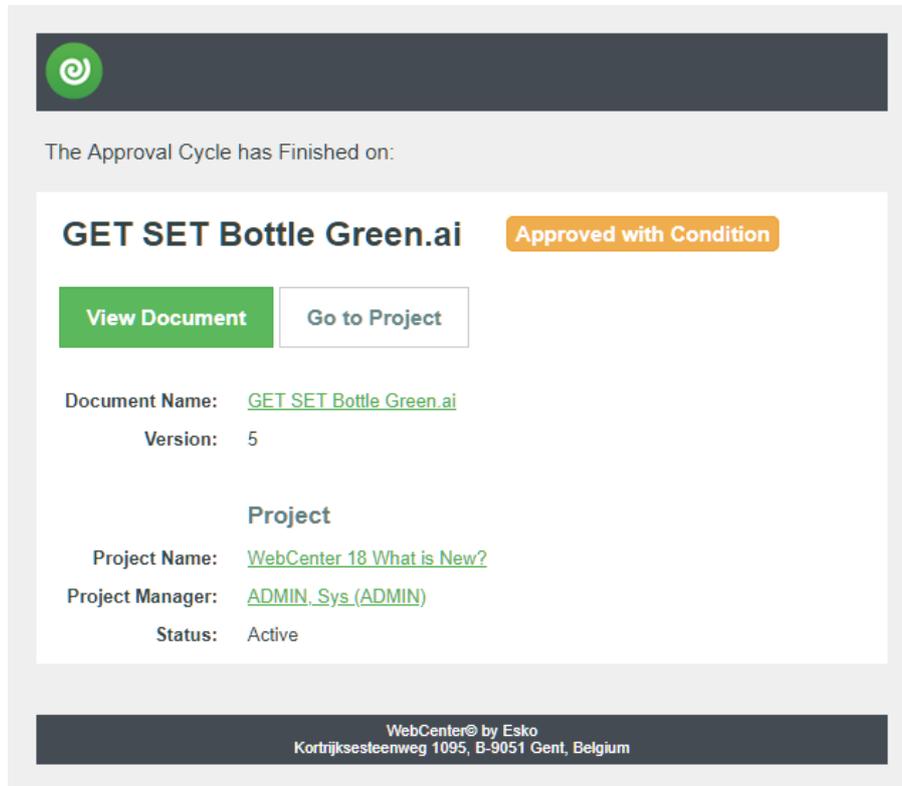
7.21 WebCenter Reports Improvements

7.21.1 Attribute Category Page Report

Attribute Category Page Report is a new feature introduced in Document and Project attribute category page for reports. With this new feature, it is possible to download attribute category data to e.g. a PDF format report. By-default "Sample Attribute Category Excel(built-in)" and "Sample Attribute Category PDF(built-in) are available. To enable these reports to be used as default attribute category report, download any of these two reports and upload them with name "Default Attribute Category Report". With this change, all Attribute Category pages will now have a download link next to print button. To have more customized report with new fields update the Sample Attribute Category built-in reports using the Jasper reporting framework also used for the standard WebCenter report.

7.21.2 Create Reports using Custom Data Source

WebCenter reports previously only supported the WebCenter Database (reporting views) as the source for reporting data. With custom data source support, it will be possible to generate reports from customized data sources. For more information on how to create report with custom data source, refer to the document "How to Create Custom Reports".

7.22 CHILI Improvements

7.22.1 Option to use HTML5 Editor

On the CHILI configuration page, there is now an option to use the CHILI HTML5 Editor. By default, this is disabled. When enabled, CHILI documents will be opened in the HTML5 Editor for all users.

7.23 WebCenter Migration Improvements

7.23.1 Migration of Project Characteristics

When exporting a project or project template, the project characteristics are exported along with other project information. Upon import, the characteristics are restored on the target system. When the characteristic does not exist on the target system, it gets created automatically.

7.24 SDK Changes

7.24.1 New Search SDK call

There is now an SDK call to run searches. The SDK call allows you to:
- run saved or basic searches
- use all the filters in Search through URL parameters
- change columns of the result or use different sorting
- export search results to XML, JSON or Excel format
- request results in a (XML or JSON) table with specified columns and cells formatted in the same way as the WebCenter UI. (allowing for easy integrations)
- request results in any of the supported formats for a list of specified IDs (instead of actually searching)

Important Note: like for (Saved) Searches run from the UI, the results of this Search SDK call will be based on the search index. If a search re-crawl is ongoing or if some documents that were recently changed are not yet indexed, the result of this SDK call might contain results that are not up-to-date. Indexing happens asynchronously which means search does not necessary reflect the current state of the system. If the results need to be correct in all situations (e.g. as part of a workflow), this call is not recommended.

More details can be found in the SDK documentation.

7.24.2 Run a Saved Search in the WebCenter UI with filter pre-filled

Next to the new Search SDK call, the dosavedsearch.jsp call which is used to run saved searches in the WebCenter user interface also has a few new parameters.

These parameters can be used by integrations to run searches in WebCenter user interface with some slightly changed filters. E.g. clicking on some link in some external system could run a saved search in WebCenter with some additional attribute filter filled in or some additional column visible.

The supported parameters allow you to change any filter in the search, change the columns and the sorting. The parameters use the same syntax as the Search SDK call. More details can be found in the SDK documentation.

7.24.3 UpdateProjectTask.jsp extensions

The UpdateProjectTask.jsp SDK call has new parameters to be able to complete (check) and "un-complete" (uncheck) checklist items in specified task. The task is auto-completed (if configured to do so) when all checklist items are completed via SDK call in the same way as it would happen when changed from WebCenter UI. The new parameters are:
- dochecklistitemid or dochecklistitemname

- undochecklistitemid or undochecklistitemname

The Automation Engine Integrate with WebCenter ticket is updated with these new options as well (no Automation Engine update needed to get the new options).

7.24.4 CreateGroup.jsp extensions

It is now possible to create not only groups, but also roles using CreateGroup.jsp SDK call.
For this, a new parameter is "rolename" is added.
Roles visibility is applied the same way as for groups.
The Automation Engine Integrate with WebCenter ticket is updated with this new option.

7.24.5 InviteMemberToProject.jsp extensions

The returned XML of InviteMemberToProject.jsp is extended with a <role_name> element next to the <role_id> for all project members assigned to a role. That makes it easier to find out who is in predefined roles with fixed names like the "_REQUESTOR" role.

7.24.6 UpdateProjectMember.jsp now available in Automation Engine

The already existing SDK call UpdateProjectMember.jsp, created to do permission changes on existing project members, is now available in the Automation Engine Integrate with WebCenter ticket.

7.24.7 DocumentAction.jsp extensions

A new parameter "docdescription" to DocumentAction.jsp allows this SDK call to change document description when a document is copied or renamed. The main use case is with document templates, where the template document has often just a generic description, which should be changed when the document is copied into an active project. The rename option is added to cover other potential use cases as well.
The Automation Engine Integrate with WebCenter ticket is updated with this new option.

7.24.8 UploadDocument.jsp extensions

UploadDocument.jsp now supports auto-naming of "on-the-fly" created project. It also allow specifying a list of new parameters to set additional project details:

- customercompanyid
- customerlocationid
- ismanagergroup
- managerid
- projectnamesuffix
- projectattributes

All the new parameters were added to support all project auto-naming options available also in the CreateProject.jsp SDK call. That however doesn't mean that the use of these parameters is restricted to the auto-naming use case. They are equally valid whenever a new project is created as part of upload of a document.
Note: the "projectattributes" parameter doesn't support setting document references in this version.
The Automation Engine Integrate with WebCenter ticket is updated with these new options.

7.24.9 CreateProjectTask.jsp extensions

The "taskname" parameter is no longer mandatory in the CreateProjectTask.jsp SDK call as it now supports auto-naming of newly created tasks based on task type name (working as in the WebCenter UI).
The corresponding action in Automation Engine Integrate with WebCenter ticket was updated accordingly.

7.25 Installer improvements

7.25.1 Re-deployment of Tomcat web instances and customizations during upgrade installation

NOTE: The feature described requires a WebCenter 18.0+ uninstallation to happen first in order to become effective. When upgrading from an older WebCenter version there will be no back-up executed via the installer tool, thus no automatic re-deployment – as described below - will be possible yet.

Backup phase (during uninstallation)
When uninstalling WebCenter Web server the installer inspects the list of Tomcat web instances and records names of all custom WebCenter instances while backing up 'custom' folder (used to store all Web server based customizations of a given instance including the default one - *WebCenter_Inst*).
Common App Data root folder is used to store the customization files backup on the target Web server host. The default path on most Windows server would be → C:\ProgramData\Esko\WebCenter\WebInstanceCustomData. This folder is the root and each WebCenter web instance custom folder files (that was backed up) is stored under a subfolder that takes the name of the appropriate instance.
The list of web instances that were found – and can be later re-deployed – is stored in the registry among the other WebCenter "upgrade values".

Re-deploy phase (during upgrade installation)
When performing an upgrade installation of a WebCenter Web server on the same host the installer gives the User the following options (if evidence of a previous backup is found in the registry – see above – if not, those controls are not show during installation):

- Redeploy web instances with customizations: default option; will re-deploy the custom instances marked during the previous uninstallation as well as their "custom" folders backup
- Redeploy web instances without customizations: will re-deploy the custom instances marked during the previous uninstallation but will not retain the backed-up "custom" folders
- Do not redeploy automatically: will not do any re-deployment of custom instances and their "custom" folder backup

7.26 Performance improvements

In WebCenter 18 we did some efforts to increase the performance.

7.26.1 Permission checks

Pages showing lists of projects, tasks or documents in different projects or folders are shown potentially need to do a large amount of complex permission checks. In WebCenter 18.0, improvements were made to make those permission checks faster. The improvements will be noticeable for non-Admin users in pages like Search Results and various My Work sections. Performance tests indicate that the improvements made can have a significant positive impact on overall system performance.

8. Known issues and limitations

8.1 First Search Index rebuild

As with every upgrade, full search index rebuild needs to happen after upgrading to WebCenter 18.0 from WebCenter 16.1.x or earlier. Note however that **the first search index rebuild after upgrading to 18.0 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.

8.2 WebCenter iOS App limitations

The WebCenter iOS App has known limitations when connecting to WebCenter 14.0.2 or earlier. These are described in KB185607215: WebCenter - Which versions of WebCenter are supported by the WebCenter iOS App for iPhone/iPad.

8.3 Export/Import of document reference properties

When Exporting and Importing a project or project template with document references having document reference properties, these properties are not maintained.

See also Knowledge Base article: <u>KB76723149: WebCenter - How to import / export setups</u> <u>or configurations from one server to another</u>

8.4 Login tracking Export for Named User Licenses

When login tracking details are saved to Excel, the data shows concurrent license model headers for named user license model.

8.5 Inherit Previously Submitted Approvals does not work with page lists

The ability to inherit approvals submitted as part of the new Approval Workflow functionality described in section 7.1.3 is not supported for Pagelist type documents.

8.6 Company and Location merger limitations

See **Known limitations** paragraph in section 7.15

9. Additional Upgrade notes

9.1 Cleaning up old search indexes

As with every upgrade, a full search index rebuild is required after upgrading to WebCenter 18.0. 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 18.0 is installed (can be before the index rebuild) these folders can be deleted to save space. Only folders having a name starting with "00001_" in the directory "C:\Artios\WebCenter\searchindex" should be removed. All the folders starting with "00000_" should be kept.
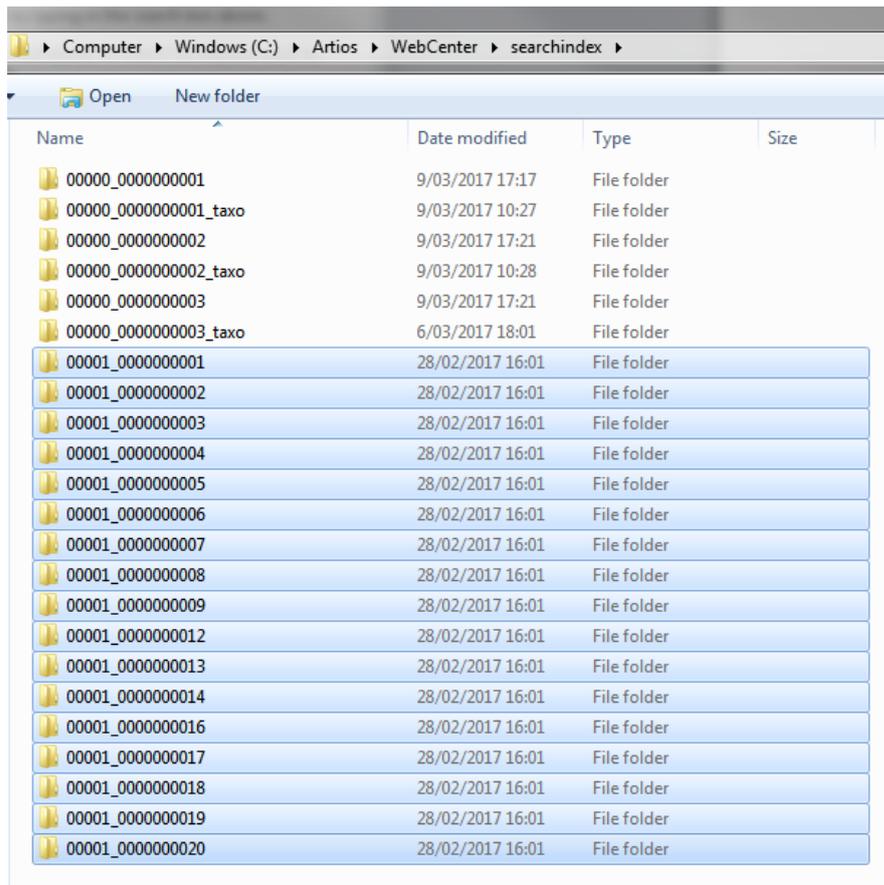
10. Solved customer issues

JIRA Number	CS Number	Description
WCR-26165	CS00983300	When a saved search is placed into the My Work section, the menu item at top right "Clear this form" is removed.
WCR-26121	CS00981682	Searching for the name of a group in role assignments in project search does not work.
WCR-26081	CS00977455	Workflow task with restricted assignee can't complete automatically.
WCR-25983	CS00975192	Enter/Return key has no more undesired effects on Task Execution page.
WCR-25955	CS00977361	Deadlock could occur during session timeout, blocking releasing of licenses in concurrent license model.
WCR-25492	CS00971924	A Submit Workflow node to a Workflow Connection over a tunnel could still show the error "No interceptor found for class com.esko.webcenter.ejb.util.ExceptionProtector in org.jboss.ejb3.singleton.aop.impl.context.LegacySingleton BeanContex"
WCR-25483	CS00969056	Performance issue with searches with documents linked to a lot of projects (slow permission checks).
WCR-25420	CS00966728	Usage of certain characters from the extended Unicode set (> 0xFFFF) in annotations (like some smileys) would cause the annotations to no longer load and the annotation overview page to error out.
WCR-25128 WCR-25955	CS00957910 CS00977361	Problem with license calculation in the server.
WCR-25025	CS00956504	Some logic changed for filling out values at the load time of Attribute Categories, reducing the number of calls to the list and preventing the clearing of values.

WCR-24965	CS00961633	The following JavaScript libraries were updated: - jquery to 2.2.4 - jquery-migrate to 1.4.1 - jquery-bgiframe to 3.0.1
WCR-24961	CS00961168	Search on documents was not working as expected for some inks.
WCR-24656	CS00956951	The group name size was extended to 256 in 16.1, but this was not reflected in the migration utility. So it was not possible to import groups with a name longer than 25 characters.
WCR-24597 WCR-23558 WCR-22673	CS00955986 CS00941968 CS00923105	Searching for groups in roles give no results on search result page.
WCR-24595	CS00954112	Performance issues solved for project creation when using autonaming.
WCR-24569	CS00947075	The HTML5 Viewer now supports all line types for CAD files
WCR-24529	CS00952867	The ajax error 0 is fixed in 18.0 The ajax 0 error is harmless and seems to be caused by a slow list call that didn't finish when submitting the page (this will not affect data).
WCR-24523	CS00954831	Searching with a date range with one date no longer works
WCR-24501	CS00953491	Task name resolution fails due to © character in deleted tasks
WCR-24437	CS00952549	Fixed issue with "Save Search Results" button not being visible when starting with no results when opening the page and changing some filters in the design panel afterwards to get results.
WCR-24421	CS00951918	If you rename an attribute that is used in a document reference table rendering configuration, the attribute name in the exported xml is not updated even you save the attribute category before exporting.
WCR-24418	CS00908541	If a default assignee was previously configured for a specific Role in the Project creation form, it was invited to a Project (when creating from the Template) even if "Assign roles" option was turned off in the Template.
WCR-24399	CS00951981	When the project is inactive and the document is linked in multiple projects, when opening the viewer, the viewer does not show the approval status of the document. As a consequence, annotations can be set on the document.
WCR-24393	CS00952402	It is no more possible to remove project manager rights from a user that is a project manager of an existing project.
WCR-24075	CS00949335	It is now possible to use URLs with parameters for the Application, Company and Product Line Logo.
WCR-23893	CS00943959	Prevented clicking twice (with seconds to minutes difference between clicks - while the first Excel is still exporting) on the same page on the "Export Search Results" button from returning an Excel which contains duplicate rows.
WCR-23788	CS00943422	Changed call to media beacon to take ACL into account.
WCR-23768	CS00942905	Values selected in multi-select dropdowns are no more randomly cleared when other attribute fields are changed in an attribute category. The multi-select dropdowns are no more randomly displayed in the top left corner of the window, but always below the corresponding attribute field.
WCR-23486	CS00940774	A regular user invited in a project via a group or a role can't upload a new version of a document to the project root folder even though he has the right permissions.

WCR-23480	CS00938392	New behavior: - as checkboxes don't have text at the right side, only the checkbox is clickable - for lists, the labels and images can also be used, but not the space in between
WCR-23451	CS00937441	The task scheduler commit order is changed
WCR-23023	CS00933815	When the user comes back after a session has times out, a popup will be shown and it will give the user the possibility to log on in another tab.
WCR-23002	CS00920989	Document source button(s) in Documents table (DocTableX) are now visible if they should be and don't randomly disappear.
WCR-22957	CS00932610	The HTML5Viewer now handles difference compare correctly for files with more than 15 channels/spot colors. For compare mode the maximum number of spot colors/channels is 31 per file or 63 in total.
WCR-22951	CS00932273	When using an attribute of project.getAPI() that is later on re-used via the getChildren or getParents calls, the values were not correctly read/saved.
WCR-22941	CS00931000	In certain situations, changing a filter in the search design panel without a search button does not automatically rerun the search.
WCR-22940	CS00930823	This fix makes sure that the approval statuses of pagelists shown in the HTML5 viewer retain their correct approval status when switching between pages.
WCR-22865	CS00929189	Duplicate button was shown for Document References on an Attribute Category.
WCR-22847	CS00924895	Some ZAE files were not able to be opened correctly on the Collada viewer.
WCR-22839	CS00926717	If your auto-naming schema resulted in a resolved project name starting with a space, a duplicate key (project name) SQL error is generated for subsequent projects.
WCR-22275 WCR-22274 WCR-21637	CS00920084 CS00918196 CS00911227	Fixed issue with search re-indexing when a project was copied from a chain of more than 100 projects
WCR-22139 WCR-20667	CS00919127 CS00896686	MacOS (Safari) Document Search results not displayed if default layout is Cards
WCR-21987	CS00916291	Staged Approval having only one Stage does not offer the 'name' field.
WCR-21737	CS00904509	Comparison mode in the Viewer shows the wrong difference after aligning the separations.
WCR-21717	CS00914257	Attributes with ":" in the name are not propagated to a project created with the Create Project workflow node.
WCR-21647	CS00912149	New 3d viewer build (client + server). Some Collada files were not correctly processed in the WCR viewer.
WCR-21638	CS00911607	The "Get WebCenter Task(s) Info" action of Integrate with WebCenter shows the options for all types of the action again.
WCR-21634	CS00894324	When syncing a project to Automation Engine, and when projects have customer/location being set, the company/locations were overwritten on the AE side. A new option is introduced to have the companies being created as separate companies on AE when the projects have the same company but different location.
WCR-21571	CS00900956	Project details JavaScript Action Button appears despite Characteristics not matching
WCR-21559	CS00908959	'Saving to Excel' doesn't work from the login tracking basic view page.

WCR-21293	CS00906761	Re-launching a canceled workflow sometimes resulted in multiple (unrelated) tasks being relaunched.
WCR-21150	CS00902210	Fixed a problem where the "select all" checkbox in the search results page is very slow.
WCR-21127 WCR-20636 WCR-19901	CS00896565 CS00893291 CS00881840	Fixed issue with cascading dropdowns in search no longer searching correctly for values containing braces ( ).
WCR-21013	CS00900118	Fixed issue where using a link to go to the document details of a document from a document search results page could (in very rare cases) result in an error "No Search Results".
WCR-21004	CS00902384	Alignment is not correct in the Attribute Category configuration page.
WCR-20949	CS00901285	When a document is copied using document source with document template configured, the attribute values of document template and copied document are again merged instead of replacing the values of copied document attributes by document template's attribute values.
WCR-20716	CS00899206	Stability problem in Barcode estimation solved
WCR-20711	CS00899399	Searching with date range for date attribute gives error.
WCR-20684	CS00894963	An error was displayed in the UI when selecting a value from a cascading dropdown.
WCR-20669	CS00896805	Searching on Approval Completed Date is broken since 16.1
WCR-20666		Fixed issue where clicking "clear this form" in a search with a lot of filters is very slow.
WCR-20649	CS00895669	When moving a document after it was approved to a different project and when deleting the original project, the approval history (who approved and approval comments) are destroyed when running the cleanup tool.
WCR-20310	CS00891621	In an Attribute Category, when a user selected a value from an attribute configured with images and radio buttons, the value was selected but the rest of the values and images linked disappeared.
WCR-20285	CS00890438	During the import Groups/Roles matching names were not handled properly -> would end up with Role/Group that exists being overwritten with the opposite object type (thus the existing one was effectively removed aka transformed into the opposite object type)
WCR-20273	CS00889435	WebCenter web instances that are marked as Main Instance (with Viewable Other configuration) are not accessible after restart if Tomcat is started before JBoss is fully initialized
WCR-20134	CS00886362	Fixed issue where project manager with limited visibility can see all users and groups in system when using the "Change Manager" action from the project list.
WCR-19957	CS00884149	When running the concurrent license model, and when all licenses are in use, the error message "cannot load valid license was generated", leading to confusion with customer that there were no licenses.
WCR-19949	CS00883412	Fixed issue where after setting up a custom label in search for the name field, this custom label was not shown in the "Order By" dropdown on the search results page.
WCR-19882	CS00881736	Outdated jQuery library. Updated for WCR 16.2.
WCR-19875	CS00881452	On Internet Explorer, if you go to an attribute category and click 'Enter' in any attribute field, a new tab opens in the browser. This shouldn't happen.

WCR-19864	CS00880603	When project autoname counter is set to 0, a counter will only be added when there is a name conflict. Instead of looking only at the prefix, it now looks at the complete name uniqueness.
WCR-19836	CS00881065	Fixed automatic naming of tasks used in workflows that had an underscore in their name.
WCR-19775	CS00878761	Fixed an issue that caused the automatic naming of tasks used in workflows to fail in some situations. Automatic naming of tasks is no longer affected by statistical analysis of the query optimizer which should result in a more stable behavior.
WCR-19557	CS00874470	SMTP timeout increased to 120s for read and 30s for connect instead of previously 10s for both
WCR-19464	CS00872526	Fixed issue where searching on "Assigned to me or group I am in" in Task or Project Search would also match unrelated groups with similar names as groups where the user is in.
WCR-19450 WCR-19335 WCR-19002	CS00873424 CS00830703 CS00846755	Document references consistently saved/copied during project creation when the project's attribute category is complex (full of rules and/or JS buttons).
WCR-19425	CS00872247	Optimization was done for tabbing between fields in the attribute category. The issues of losing focus when the changed attribute was in a visibility rule have been fixed.
WCR-19413	CS00872031	Fixed files uploaded through document references not having a correct original disk filename.
WCR-19377	CS00869184	Checkboxes can now also be seen in the read-only mode of the attribute category. However, to make it work, you will need to re-save the attribute category.
WCR-19376	CS00866605	Before 16.2, list value server requests could become too long when selecting a lot of values. This could cause the request to fail because the limit of a GET request was reached. Now, when a request is too large, it is automatically transformed into a POST request.
WCR-19352	CS00869696	When doing bulk operations from search results, you could no longer clear out a restricted set attribute.
WCR-19298	CS00869335	User was not found in the DB after adding the user as the Sales Person and deleted from the UI afterwards.
WCR-19267	CS00868124	The selection of values in a cascading dropdown has been improved to make sure that the value is always selected and to avoid a warning popup when "allow other values" is turned on in the list.
WCR-19022	CS00864915	In 16.2, it is possible again to create visibility rules with attributes that are not included in the view.
WCR-18989	CS00863223	CAD section not shown in the viewer when connection is not fast.
WCR-18970	CS00857710	DocTableX: add option to open document reference in same tab rather than opening a new one
WCR-18950	CS00863249	Fixed issue where the order of the columns in Excel changes when entering some values in the top parameter panel of a search.
WCR-18946	CS00858970	Fixed issue where adding/removing attributes from the setup sometimes introduced two columns with the same order or -1 column order values.
WCR-18940	CS00862430	'Change BOM' and 'Change Task' user permissions not correctly resolved at the folder level. This could result in missing 'Add to BOM', 'Create Task' and 'Start Workflow' actions at the Project documents page, documents table actions.

WCR-18935	CS00861143	Braille estimation made more robust by detecting also dots rendered at dot % lower than 100%
WCR-18923	CS00862431	Annotations made by Users that were deleted were not displayed at the document Action History page
WCR-18862	CS00861476	Delete task when completed for a workflow part of a workflow doesn't output documents
WCR-18652	CS00859334	Fixed issue with some attributes not showing up in the Search Setup Attributes Selection Popup.
WCR-18584	CS00856804	In case a PM user is created via CreateUser.jsp SDK call and the named user license model is used, the number of available users is checked against the number of regular users. So the PM user can be created even though there are no admin/pm licenses left. Once some user tries to login, the system locks (license violation).
WCR-18571	CS00854933	Non Administrator users were not able to select documents from MB (Media Beacon)
WCR-18354	CS00850449	Solved the problem with username and annotations in the viewer.
WCR-18284	CS00844234	ManageDocApproval.jsp SDK call could under some conditions leave open session after it ends. This is no more the case.
WCR-18171	CS00843950	In some cases, a document could end up twice in a user's list of documents to follow up. This can happen when change the approval setup after it has been started.
WCR-18170	CS00833260	File size larger than 2 GB would be shown as 2GB
WCR-18121	CS00841737	Disabled the save buttons of attribute categories on save to prevent duplicate submissions.
WCR-17945	CS00837210	Action dropdown menus no longer appear off screen.
WCR-17877	CS00835029	Braille tool does not read the documents correctly. There is some missing information while reading the file.
WCR-16779	CS00717724	Attribute selection is lost when a value is added on a different attribute.
WCR-10416	CS00565202	Relaunching a canceled workflow sometimes resulted in multiple (unrelated) nodes being relaunched.