

## OpenText™ Documentum™ Content Management for Engineering

### Configuration Guide

Configure Roles, Asset Documents, Control Procedure, Transmittals and Distribution lists, Number Reserve, Work Order, Supplier Document Schedule, Working Copies, Project Package, and Projects in Classic View.

EEGAM250400-CFD-EN-01

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## **OpenText™ Documentum™ Content Management for Engineering Configuration Guide**

EEGAM250400-CFD-EN-01

Rev.: 2025-Aug-06

This documentation has been created for OpenText™ Documentum™ Content Management for Engineering CE 25.4. It is also valid for subsequent software releases unless OpenText has made newer documentation available with the product, on an OpenText website, or by any other means.

### **Open Text Corporation**

275 Frank Tompa Drive, Waterloo, Ontario, Canada, N2L 0A1

Tel: +1-519-888-7111

Toll Free Canada/USA: 1-800-499-6544 International: +800-4996-5440

Fax: +1-519-888-0677

Support: <https://support.opentext.com>

For more information, visit <https://www.opentext.com>

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## Preface

## Overview

This guide describes the default behavior of OpenText Documentum CM for Engineering. OpenText Documentum CM for Engineering is built on the Documentum Content Management client web application and OpenText Documentum CM platform. The guide explains how to use OpenText Documentum CM for Engineering as a template to extend the functionality to applications in your environment. Smart View help explains how to use OpenText Documentum CM for Engineering to complete end-user tasks such as creating an asset document and submitting the document for review and approval.

Documentum Content Management client is a web-based application that enables users to store, retrieve, and manage documents in a Documentum repository. It is highly customizable through a configuration application that does not require programming knowledge. Documentum Content Management consists of the following components:

- OpenText Documentum CM client configuration: The configuration application that enables you to configure settings for security, workflows, document classification, and the client user interface.
- OpenText Documentum CM client: The main application that is used to interact with documents in the repository.

Additional client components that are used in OpenText Documentum CM for Engineering are:

- Documentum D2 Office Integration (O2): Microsoft Office and Outlook properties synchronization for documents and email.
- Documentum D2 PDF Integration (C2): PDF file control for watermarking and controlled printing.

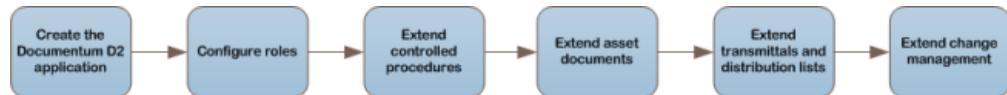


# Chapter 1

## Getting Started

OpenText Documentum CM for Engineering enables organizations to control asset-related documentation, automate workflows critical to plant operations and maintenance activities, and ensure efficiency and compliance with health, safety, environment and other regulatory standards. The OpenText Documentum CM for Engineering application provides base configurations that you can extend to applications in your environment.

The following figure illustrates the process for extending OpenText Documentum CM for Engineering to an application:



For more information about creating applications, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

### 1.1 SmartView Help Landing Page

OpenText Documentum CM for Engineering landing page provides a separate page to invoke SmartView Help. Perform the following steps to configure the AO SmartView help:

1. In client configuration, click **Goto > Menu Smart View** and select **AO Smartview Menu**.
2. In **Contextual menus** section, click **User Menu** and select **Help** from the drop-down list.
3. In **Parameters** section, by default localhost is set for alternate online help server url root. Here, you must update your AO D2 client IP address and port number.

### 1.2 Landing Page

OpenText Documentum CM for Engineering landing page provides navigation link for Operations, Projects, Search, Project Documents, Reports, and Documentation. You can update the landing page to add more shortcuts for your environment. Only user with Doc coordinator role can access the landing page.

For more information about *Widget Communication Channel Reference*, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

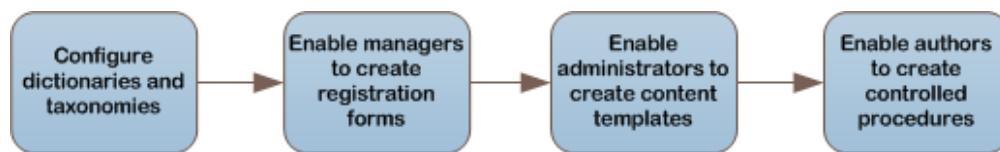
## 1.3 Configure Roles

OpenText Documentum CM for Engineering provides preconfigured roles for users who work with controlled procedure documents, asset documents, transmittals, change management documents, and manage Minor projects. OpenText Documentum CM for Engineering uses a naming convention that consists of a group name prefix and a role to control role-based access and workflow participation. The group name prefix enables you to create multiple extensions of the OpenText Documentum CM for Engineering application in your environment.

## 1.4 Extend Controlled Procedures

After you create the client application in OpenText Documentum CM client configuration, you extend controlled procedures from the OpenText Documentum CM for Engineering application to the new application. Controlled procedures manage strategy and planning documents and operational documents for the utilization and maintenance of assets. Examples of controlled procedure documents include corporate policies, procedures, work instructions, local instructions, and guidelines.

The following figure illustrates the process for extending controlled procedures:



## 1.5 Extend Asset Documents

After you extend controlled procedures, you extend asset documents from the OpenText Documentum CM for Engineering application to your application. OpenText Documentum CM for Engineering are controlled documents and drawing that contain information about assets. Examples of asset documents include construction specifications, design calculations, inspection sheets, and purchase orders.

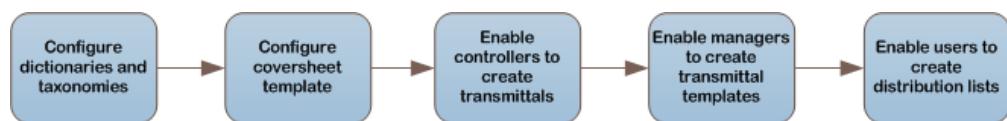
The following figure illustrates the process for extending asset documents:



## 1.6 Extend Transmittals and Distribution Lists

After you extend asset documents, you extend transmittals and distribution lists from the OpenText Documentum CM for Engineering application to your application. A transmittal is a package of documents with an applied distribution and generated coversheet that facilitates secure collaboration with third parties on repair and maintenance activities. Coversheet templates define coversheet branding, layout, and embedded content. Distribution lists define internal or external users receiving a transmittal, and the means of transfer.

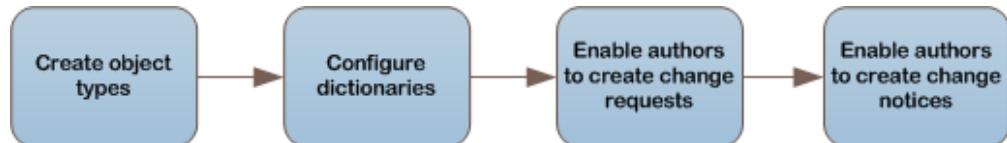
The following figure illustrates the process for extending transmittals and distribution lists:



## 1.7 Extend Change Management

After you extend transmittals and distribution lists, you extend change management functionality from the OpenText Documentum CM for Engineering application to your application. Change management consists of change requests for creating and updating controlled procedure documents and asset documents, and change notices for reviewing and approving document revisions.

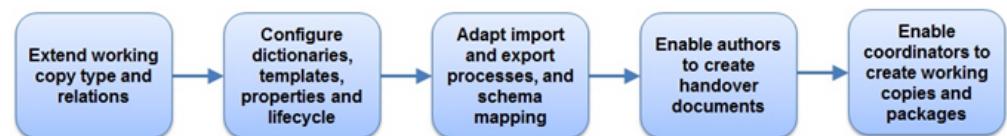
The following figure illustrates the process for extending change management:



## 1.8 Extend Project Revisions

OpenText Documentum CM for Engineering supports project working copy revisions of asset documents. Authors create working copies of existing asset documents and specify the associated project. Document controllers then create project packages sent to external systems and recipients. The sent packages include a generated spreadsheet of mapped asset to project metadata. Revisions import as returned packages of documents and mapped metadata. After you extend change management, you extend project revisions functionality.

The following figure illustrates the process for extending project revisions:



## 1.9 Extend Work Orders and Tasks

OpenText Documentum CM for Engineering provides the creation and assembly of work order tasks and supporting documents. The generated work order task reflects the overall work order, task specifics, included documents and recipients. Task templates enable consistent and rapid generation of common work order tasks. After you extend project revisions, you extend work order and task functionality.

The following figure illustrates the process for extending work orders and tasks:



## 1.10 Extend Field Query

OpenText Documentum CM for Engineering provides the creation and assembly of field query tasks and supporting documents. A field query is an inquiry concerning a piece of equipment, optionally related to a work request or associated product or procedure documentation.

## 1.11 Extend Working Copy Revision

OpenText Documentum CM for Engineering provides the option to create Working Copy Revision which is the exact replica of effective asset document. The working copy revision is shared with a contracted Supplier. The Working Copy Revision support review and approval within the Asset Operations repository.

## 1.12 Extend Project Working Copies

OpenText Documentum CM for Engineering provides the option to create Project Working Copy which is the replica of effective asset document and it is implemented as part of a Project. The Project Working Copy can be categorized as **internal** or **external** based on its use within projects or if it is shared with a contracted Supplier respectively. A Project Working Copy can have multiple revisions within projects. The Project Working Copy support review and approval within the repository.

## 1.13 Create Projects

OpenText Documentum CM for Engineering supports the management of projects in parallel with the management of content for on-going operations. Using the same repository, you can create, review, approve, and share content -- related to on-going operations or Brownfield projects. You can share information between operations and managed projects.

## 1.14 Distribution Matrix

OpenText Documentum CM for Engineering provides Distribution matrix through which Transmittal Manager can distribute a transmittal based on a predefined matrix. The matrix can be set up with a number of conditions so that they can be reused in a number of situations. You can import the distribution matrix details by using a spreadsheet. The spreadsheet provides the details of the distribution matrix and recipient Info.

## 1.15 Document Loading

The Document Loading feature in OpenText Documentum CM for Engineering helps to you to create or update a large number of documents at the same time.

Document Loading involves the following components or tasks:

- **Document Loading Spreadsheet:** Contains the mandatory information required for creating a document in OpenText Documentum CM for Engineering. For example, Storage Type, Path, Creation Profile.
- **Validation Rule:** Defines a unique combination of Object Type, Document Type, Action Type, and Facility to validate each row of the Document Loading spreadsheet.
- **Matching Rule:** Identifies the existing documents in the system that matches the metadata provided in the spreadsheet. The matching rule it also defines what action to take when a match is found, such as create a new major or minor version, overwrite, ignore, or create a new document altogether.
- **Document Loading Templates:** The templates are updated with all necessary column headers and dictionaries. This helps the document loaders to use the templates to load spreadsheets.

## 1.16 Number Reserve

Number reserve feature helps to reserve bulk number of place holder documents that can be shared with third-party applications or vendors.

## 1.17 OpenText Documentum CM for Engineering Localization

Use **AO Localization Messages** dictionary to configure the messages, templates, and error messages. The dictionary follows the following naming conventions for different features:

Feature	Prefix
Working Copy	wc_
Transmittals	TR_
Distribution Matrix	DM_
Packages Handover and Hand back	HO_
Document Loading	DL_

# Chapter 2

## User Roles

This chapter contains instructions for configuring OpenText Documentum CM for Engineering user roles.

### 2.1 OpenText Documentum CM for Engineering User Roles Overview

When you define your user roles, you must follow the convention that all domain roles should be prefixed with the `group_name` value. For example, `acme_hydro_admins` where Acme Hydro is the group name. Documentum imposes a limitation of 32 characters on role names.

The following table describes the preconfigured user roles in OpenText Documentum CM for Engineering:

User Roles	Description
Administrators	Create content templates for controlled procedures and asset documents.
Approvers	Approve Control Category 1 and 2 documents, all controlled procedures, change requests, and change notices.
Auditors	Read-only access to: <ul style="list-style-type: none"><li>• Audit logs</li><li>• Effective, Superseded, and Expired documents</li></ul> Must have a minimum extended privilege of <b>View Audit</b> .
Authors	Create documents and submit them to a workflow. <ul style="list-style-type: none"><li>• Control Categories 1 and 2: Authors cannot be an Approver.</li><li>• Control Category 3: Authors can approve documents and act as Document Coordinators.</li></ul>

User Roles	Description
Document Coordinators	<p>Manage the publication of controlled documents, controlled procedures, change requests, create and manage minor projects.</p> <p>For controlled documents and controlled procedures:</p> <ul style="list-style-type: none"> <li>• Control Category 1: Schedules release dates. Verifies that all members of the To Be Read (TBR) Distribution List have signed off on a document or rejected the task in the <b>Submit to To Be Read recipients</b> workflow before the document becomes Effective.</li> <li>• Control Categories 1 and 2: Releases documents to an Effective state and controls the long-term management of the document. Can submit a document to a workflow.</li> <li>• Control Category 3: Authors can act as Document Coordinators.</li> </ul> <p>For change requests, a change request coordinator group is made a member of this group.</p> <ul style="list-style-type: none"> <li>• Manages all change requests in a particular domain.</li> <li>• The Change Request Coordinator can change Authors, Reviewers, and Approvers for the documents affected by change requests.</li> </ul> <p>For project working copies:</p> <ul style="list-style-type: none"> <li>• Create working copies of asset documents</li> <li>• Create handover packages of project documents</li> </ul>
Managers	<p>Create registration forms and make them effective for the user.</p> <p>You can also setup an Auto Inherit Configuration for the system to auto assign additional attributes based on criteria.</p> <p>Create work order task templates.</p>
Second-Level Approvers	Final approval for Control Category 1 documents and approval of controlled procedures requiring two or more approvals. Controlled Procedures also have third and fourth level approvers.

User Roles	Description
Readers	General consumers with read-only access to Effective versions. These users can also create a change request.
Recipients	Optional. Recipients on the To be Read (TBR) Distribution List are notified when a Control Category 1 document is scheduled to become <b>Effective</b> . They confirm that they have read the document or controlled procedure.  When a Reader requests a printable PDF, they are added to the TBR Distribution List.
Reviewers	Review documents using annotation in formal review workflows and edit documents in editing workflows.
Transmittal Managers	The transmittal managers user group. This group can create and manage transmittals, transmittal templates, distribution lists and distribution matrix.
Transmittal Controllers	The transmittal controllers group. This group can create, edit, send, and make transmittals effective. They can also create distribution list templates.
Transmittal Consumers	The transmittal consumers group. This group can only read transmittals.
Transmittal Auditors	The transmittal auditors group. This group can read and audit transmittals.
Contributor	This is a group the application will auto-assign with relate permission. This role is needed when document is related through <code>dm_relation</code> , the related document's writer can still update the document without encountering access issue.
Work Order Planners	This group can create, edit, and send work order tasks. They can also create work order.
Work Order Managers	This group can create and manage work order task templates.

## 2.2 Creating Users

OpenText Documentum CM for Engineering provides a defined set of user roles.

For more information about creating users in OpenText Directory Services, see *OpenText Directory Services - Installation and Administration Guide (OTDS250200-IWC)*.

## 2.3 Asset Document User Groups

Use Documentum Administrator to create your needed roles and then add users to those roles. The following list describes the user groups needed for OpenText Documentum CM for Engineering Asset Documents. Each group begins with the prefix that represents the group name, for example acme\_hydro\_ for the sample application or ao\_ for the base OpenText Documentum CM for Engineering configuration. Replace this prefix with the prefix representing your group name. For Asset Document registration form users, see “[Registration Form Users](#)” on page 37.

User Group	Description
<group_name>_managers	Managers who can create registration forms for each document that provides default property values. Base configuration: <b>ao_managers</b> .
<group_name>_doc_approvers	Users who can perform approvals for all Asset Documents routed to them. Base configuration: <b>ao_doc_approvers</b> .
<group_name>_doc_auditors	Users who can audit Asset Documents. Base configuration: <b>ao_doc_auditors</b> .
<group_name>_doc_coordinators	Asset Document coordinators. This group is a member of <group_name>_doc_authors. Base configuration: <b>ao_doc_coordinators</b> .
<group_name>_doc_authors	Authors who can create and revise Asset Documents. Base configuration: <b>ao_doc_authors</b> .
<group_name>_doc_qo_approvers	Quality organization users. Base configuration: <b>ao_doc_qo_approvers</b> .
<group_name>_doc_readers	Users who can access Effective versions of Asset Documents. Base configuration: <b>ao_doc_readers</b> .

User Group	Description
<code>&lt;group_name&gt;_doc_recipients</code>	Users who can access <b>Release Pending</b> and <b>Effective</b> versions of Asset Documents. These users can also participate in to-be-read workflows to formally acknowledge reading and understanding new or updated Asset Documents. Base configuration: <b>ao_doc_recipients</b> .
<code>&lt;group_name&gt;_doc_reg_affairs</code>	Regulatory affairs users. Base configuration: <b>ao_doc_reg_affairs</b> .
<code>&lt;group_name&gt;_admins</code>	Administrators who can create content templates and have access to Asset Documents across their lifecycle states. This group is a member of the admin group. Base configuration: <b>ao_admins</b> .
<code>&lt;group_name&gt;_doc_reviewers</code>	Users who can review Asset Documents and content templates that have been designated for review. Base configuration: <b>ao_doc_reviewers</b> .

## 2.4 Controlled Procedure User Groups

You can define access and user permissions for controlled procedure registration forms and controlled procedure documents. For controlled procedures, you can define user access and permissions for:

- authors
- reviewers
- up to four levels of approvers
- document coordinators
- readers
- tbr distribution list
- auditors

For Controlled Procedure registration form users, see “[Registration Form Users](#)” on page 37.

Use Documentum Administrator to create your needed roles and then add users to those roles. The following list describes the user groups needed for OpenText Documentum CM for Engineering Controlled Procedure. Each group begins with the prefix that represents the group name, for example `acme_hydro_` for the sample application or `ao_` for the base OpenText Documentum CM for Engineering configuration. Replace this prefix with the prefix representing your group name.

User Group	Description
<code>&lt;group_name&gt;_proc_managers</code>	The Controlled Procedures Managers group. This group can create registration forms for each controlled procedure that provides default property values. This group is a member of the <code>&lt;group_name&gt;_managers</code> group.  Base configuration: <b>ao_proc_managers</b>
<code>&lt;group_name&gt;_proc_admins</code>	The Controlled Procedures Administrators group. This group can create controlled procedure content templates and have access to controlled procedures across their lifecycle states.  Base configuration: <b>ao_proc_admins</b>
<code>&lt;group_name&gt;_proc_doc_authors</code>	The Controlled Procedures Authors group. This group can create and revise controlled procedures.  Base configuration: <b>ao_proc_doc_authors</b>
<code>&lt;group_name&gt;_proc_doc_reviewers</code>	The Controlled Procedures Reviewers group. This group can review controlled procedure documents and content templates that have been designated for review.  Base configuration: <b>ao_proc_doc_reviewers</b>
<code>&lt;group_name&gt;_proc_l1_approvers</code>	The Controlled Procedures level 1 approvers group. This group can perform first-level approvals for all controlled procedures routed to them.  Base configuration: <b>ao_proc_l1_approvers</b>
<code>&lt;group_name&gt;_proc_l2_approvers</code>	The Controlled Procedures level 2 approvers group. This group can perform second-level approvals for controlled procedures requiring two or more levels of approval.  Base configuration: <b>ao_proc_l2_approvers</b>
<code>&lt;group_name&gt;_proc_l3_approvers</code>	The Controlled Procedures level 3 approvers group. This group can perform third-level approvals for controlled procedures requiring three or four levels of approval.  Base configuration: <b>ao_proc_l3_approvers</b>

User Group	Description
<code>&lt;group_name&gt;_proc_l4_approvers</code>	The Controlled Procedures level 4 approvers group. This group can perform fourth-level approvals for controlled procedures requiring four levels of approval. There are four levels of approvals by default. It is not recommended to create additional levels of approval.  Base configuration: <code>ao_proc_l4_approvers</code>
<code>&lt;group_name&gt;_proc_doc_auditors</code>	The Controlled Procedures auditors. This group can audit controlled procedures.  Base configuration: <code>ao_proc_doc_auditors</code>
<code>&lt;group_name&gt;_proc_doc_readers</code>	The Controlled Procedures readers group. This group can access <b>Effective</b> versions of controlled procedures.  Base configuration: <code>ao_proc_doc_readers</code>
<code>&lt;group_name&gt;_proc_doc_recipients</code>	The Controlled Procedures recipients group. This group can access <b>Release Pending</b> and <b>Effective</b> versions of controlled procedures. These users can also participate in to-be-read workflows to formally acknowledge reading and understanding new or updated controlled procedures.  Base configuration: <code>ao_proc_doc_recipients</code>
<code>&lt;group_name&gt;_proc_doc_coordinators</code>	Controlled Procedure document coordinators. This group is a member of <code>&lt;group_name&gt;_proc_doc_authors</code> .  Base configuration: <code>ao_proc_doc_coordinators</code>
<code>&lt;group_name&gt;_procs</code>	A roll-up group consisting of all groups with the <code>&lt;group_name&gt;_procs</code> prefix. This group is a member of the <code>&lt;group_name&gt;</code> group.  Base configuration: <code>ao_procs</code>



**Note:** Admin group creation is problematic if dmadmin is included as an administrator creating content templates because the `group_name` of any document created by dmadmin is docu regardless of the settings defined in OpenText Documentum CM client configuration.

## 2.5 Transmittal and Transmittal Template User Groups

Use Documentum Administrator to create your needed roles and then add users to those roles. The following list describes the user groups used in OpenText Documentum CM for Engineering transmittals. Each group begins with the prefix that represents the group name, for example acme\_hydro\_ for the sample application or ao\_ for the base configuration. Replace this prefix with the prefix representing your group name.

User Group	Description
<group_name>_tr_managers	The transmittal managers user group. This group can create transmittal templates.  This group also inhabits the form_manager role for transmittal templates. When creating a transmittal template, the form_manager becomes the manager of the transmittal. Other users in the form_manager role can be co-managers of the template. This group is a member of <group_name>_tr_controllers.  For the base configuration: <b>ao_tr_managers</b>
<group_name>_tr_controllers	The transmittal controllers group. This group can create, edit, send, and make transmittals effective. Asset Operations configures <b>ao_tr_controllers</b> for this role. When creating a transmittal, the controller becomes the author of the transmittal. Other users in the Controller role can be co-authors of the transmittal. Members of this group can create and publish distribution lists.  This group also inhabits the form_users role for transmittal templates. This role enables them to use transmittal templates to create their own transmittal instances.  For the base configuration: <b>ao_tr_controllers</b>
<group_name>_tr_consumers	The transmittal consumers group. This group can only read transmittals.  For the base configuration: <b>ao_tr_consumers</b>
<group_name>_tr_auditors	The transmittal auditors group. This group can read and audit transmittals.  For the base configuration: <b>ao_tr_auditors</b>

## 2.6 Change Management User Groups

Use Documentum Administrator to create your needed roles and then add users to those roles. The following list describes the user groups needed for Change Requests. Each group begins with the prefix that represents the group name, for example `acme_hydro_` for the sample application or `ao_` for the base configuration. Replace this prefix with the prefix representing your group name.

User Roles	Description
<code>&lt;group_name&gt;_crq_coordinators</code>	Coordinators for stand-alone document change requests. This group is a member of <code>&lt;domain&gt;_doc_coordinator</code> group. Base configuration: <code>ao_crq_coordinators</code>
<code>&lt;group_name&gt;proc_crq_coordinators</code>	Coordinators for stand-alone procedure document change requests. This group is a member of <code>&lt;domain&gt;_proc_doc_coordinator</code> group. Base configuration: <code>ao_proc_crq_coordinators</code>

## 2.7 Work Order and Work Order Template User Groups

Use Documentum Administrator to create your needed roles and then add users to those roles. The following list describes the user groups used in work orders. Each group begins with the prefix that represents the group name, `ao` for the base configuration. Replace this prefix with the prefix representing your group name.

User Group	Description
<code>&lt;group_name&gt;_wo_managers</code>	The work order managers user group. This group can create work order task templates. This group also inhabits the <code>form_manager</code> role for work order task templates. When creating a work order task template, the <code>form_manager</code> becomes the manager of the work order. Other users in the <code>form_manager</code> role can be co-managers of the template. This group is a member of <code>&lt;group_name&gt; wo_planners</code> . Base configuration: <code>ao_wo_managers</code>

User Group	Description
<group_name>_wo_planners	The work order controllers group. This group can create, edit, send, and make work orders tasks effective. Asset Operations configures <b>ao_wo_planners</b> for this role. When creating a work order task, the planner becomes the author of the work order. Other users in the Planner role can be co-authors of the transmittal. Members of this group can create and publish work order task distribution lists. This group also inhabits the form_users role for work order task templates. This role enables them to use work order task templates to create their own work order task instances. Base configuration: <b>ao_wo_planners</b>
<group_name>_wo_consumers	The work order task consumers group. This group can only read work order tasks. Base configuration: <b>ao_wo_consumers</b>
<group_name>_wo_auditors	The work order task auditors group. This group can read and audit work order tasks. Base configuration: <b>ao_wo_auditors</b>
<group_name>_wo_reviewers	Users who can review work order tasks and attachments that have been designated for review. Base configuration: <b>ao_wo_reviewers</b>
<group_name>_wo_approvers	Users who can perform approvals for all work order tasks routed to them. Base configuration: <b>ao_wo_approvers</b>

## 2.8 The Domain Group

The <group\_name> group in your domain is a roll-up group consisting of other groups. The domain group for the base configuration is **ao**. It consists of the following groups:

- ao\_doc\_approvers
- ao\_doc\_auditors
- ao\_doc\_authors
- ao\_doc\_qo\_approvers
- ao\_doc\_readers

- ao\_doc\_recipients
- ao\_doc\_reviewers
- ao\_managers
- ao\_doc\_coordinators
- ao\_crq\_coordinators
- ao\_tr\_managers
- ao\_tr\_controllers
- ao\_tr\_consumers
- ao\_tr\_auditors
- ao\_admins
- ao\_procs
- ao\_wo\_auditors
- ao\_wo\_consumers
- ao\_wo\_managers
- ao\_wo\_planners

## 2.9 Registration Form Users

For Asset Documents and Controlled Procedure registration forms, you can define user access and permissions for:

- form managers
- form users
- form owners
- world
- the administrative user group

## 2.10 Configure Folder Security Model

Configure a folder security model for your domain. Use the base folder security model as a starting point and make the specified changes.

1. In client configuration, select **Go to > Security** and select **AO General Folder Security Model** from the menu bar.
2. Click **Create from**, provide a name for the security model, and select your application from the **Applications** list.
3. Ensure the following Identifiers, Conditions, and Permissions are defined. Remove any additional permissions.

Identifier	Conditions	Permissions
dm_world	Default	1–None
dm_owner	Default	7–Delete
Select the prefix for your user groups, for example: acme_hydro	Default	6–Write
Select the administrator group for the domain. For example, acme_hydro_admins	Default	7–Delete

4. For the administrator group for your domain (for example, acme\_hydro\_admins), select:
  - Change State
  - Change Owner
  - Change Permit
5. Click **Save**.

The General Folder Security Model applies to folder created for new and imported asset documents. The folder security provides WRITE access to the parent group of all contributor and consumer roles. Implicitly, the permissions applied to contained documents enforce granular access for accessing, revising, annotating or reviewing. The following tables defines the folder permissions provided for transmittal folders, **AO Transmittal Folder Security Model**, and work order folders, **AO Work Order Folder Security**.

Identifier	Conditions	Permissions
dm_world	Default	1–None
dm_owner	Default	7–Delete
Select the administrator group for the domain. For example, ao_admins	Default	7–Delete
Transmittal Auditors group. For example, ao_tr_auditors	Default	3–Read
Transmittal Consumers group. For example, ao_tr_consumers	Default	3–Read
Transmittal Controllers group. For example, ao_tr_controllers	Default	6–Write

**AO Transmittal Folder Security Template** also grants Change State, Change owner, and Change Permit permissions to **ao\_admin**.

Identifier	Conditions	Permissions
dm_world	Default	1–None
dm_owner	Default	7–Delete
Select the administrator group for the domain. For example, ao_admins	Default	7–Delete
Work Order Auditors group. For example, ao_wo_auditors	Default	3–Read
Work Order Consumers group. For example, ao_wo_consumers	Default	3–Read
Work Order Managers group. For example, ao_wo_managers	Default	6–Write
Work Order Planners group. For example, ao_wo_planners	Default	6–Write

**AO Work Order Folder Security Template** also grants Change State, Change owner, and Change Permit permissions to ao\_admin; and, Change Folder Links, and Change Location to ao\_wo\_managers and ao\_wo\_planners.



# Chapter 3

## Controlled Procedures

Controlled Procedures are strategy, planning and procedure documents established to manage and maintain assets. OpenText Documentum CM for Engineering provides an extensible, preconfigured application for the proper management and dissemination of controlled procedure. The following sub-sections detail the provided configurations, and describe how they are adapted and extended for specific customer requirements.

### 3.1 Configuration Summaries

This section describes the Controlled Procedure configurations provided in OpenText Documentum CM for Engineering. You adapt and reuse these configurations to create your specific solution. Each solution requires varying levels of updates.

If your solution requires properties not provided by controlled procedures, you can add the new properties to a custom document type and then define and use those properties by customizing additional components.

#### 3.1.1 Controlled Procedure Configurations

OpenText Documentum CM for Engineering provides a series of configurations defining the access, actions, interfaces, values, and views of controlled procedures. The following table summarizes the provided configurations for controlled procedures. Each configuration reflects an applicable context that specifies an object type of `ao_control_procedure`. See “[Controlled Procedure Document Object Type and Properties](#)” on page 56 for descriptions of the object's properties.

Configuration	Description
Property page	Defines the properties of the document and controls the values that authors can enter and select when creating controlled procedures.  All controlled procedures use the <b>AO Controlled Procedure Property Page</b> on create, and <b>AO Controlled Procedure Edit Property Page</b> to edit properties.

Configuration	Description
<b>Inheritance</b>	<p>Specifies the properties that controlled procedures inherit from the source document when authors create controlled procedures.</p> <p>The <b>AO Controlled Procedure</b> contexts are preconfigured to use the <b>AO Control Procedure Inheritance</b> configuration.</p>
<b>Security</b>	<p>Defines role-based access to controlled procedures. Access depends on the document state, lifecycle, and the user role.</p> <p>The <b>AO Controlled Procedure</b> and contexts are preconfigured to use the <b>AO Controlled Procedure Security</b> configuration.</p>
<b>Lifecycle</b>	<p>Controls the transition of Lifecycle approval states and states that perform specified actions.</p> <p>The <b>AO Controlled Procedure</b> and contexts are preconfigured to use the <b>AO Controlled Procedure Lifecycle</b> configuration.</p>
<b>Lifecycle Batch</b>	<p>Defines the automated actions performed for controlled procedures. The <b>AO Controlled Procedure</b> contexts are preconfigured to use the following lifecycle batch actions:</p> <ul style="list-style-type: none"> <li>• <b>AO Expire Control Procedure</b> to promote to <b>Expired</b> on the <i>expiration_date</i>.</li> <li>• <b>AO Make Control Procedure Effective</b> to promote to <b>Effective</b> on the <i>effective_date</i>.</li> <li>• <b>AO Review Control Procedure</b> to notify on the <i>review_date</i> the document coordinators the procedure should be reviewed.</li> </ul>
<b>Workflow</b>	<p>Defines which workflows are selectable to route the controlled procedure. Asset Operations defines the <b>AO Control Procedure Approval</b> workflow for the <b>a_status</b> of 'Draft' context. The <b>AO TBR Release</b> workflow is defined for the <b>a_status</b> of 'Effective' context.</p>

Configuration	Description
<b>Template List</b>	Specifies the template documents available to create an instance controlled procedure document. The context is preconfigured to use the <b>AO Document Type based Templates</b> that dynamically matches all content templates located in /AO Library/Templates/Content Templates that are Effective and have an <b>applicable_artifacts</b> value matching the created procedure document type.
<b>Menu D2</b>	Defines the menu options that appear in the OpenText Documentum CM client when a controlled procedure is selected.  The context is preconfigured to use the <b>Control Procedure Menu</b> configuration.
<b>Audit</b>	Captures and records key events as documents progress through their lifecycle.  The context is preconfigured to use the <b>Auditing of AO Controlled Procedures</b> configuration.
<b>Auto Link</b>	Specifies a dynamic location where OpenText Documentum CM for Engineering places created and imported controlled procedures. The <b>AO Controlled Procedure</b> context is preconfigured to use <b>AO Procedure Auto Link</b> to place documents in: <ul style="list-style-type: none"> <li>• a Cabinet matching the domain (AO)</li> <li>• a folder reflecting the created document_type</li> </ul>
<b>o2 Transfer configuration</b>	This configuration synchronizes the mapping between controlled procedure document properties and their corresponding properties in the Microsoft Office document, specifies the events that trigger the transfer, and defines the format of the transferred date.  The AO Controlled Procedure context selects the <b>O2_Control_Procedure_Template</b> transfer configurations.

Configuration	Description
<b>C2 View Configuration</b>	<p>Adds dynamically constructed pages to your PDF document.</p> <p>The AO Controlled Procedure context is preconfigured to use the <b>AO Controlled Procedure View</b> configuration which defines: and an added signature page capturing the user, time/date and indication of all review and approval sign-offs.</p> <ul style="list-style-type: none"> <li>• the lifecycle state appears in a watermark diagonally across each page</li> <li>• adds a signature page capturing the user, time/date, and an indication of all review and approval sign-offs</li> </ul>

### 3.1.2 Controlled Procedure Registration Forms

Controlled procedure registration forms enable you to pre-define metadata for controlled procedure documents. A registration form does not contain content, but instead acts as a metadata template for a specific type of controlled procedure document. Registration forms ensure that each type of controlled procedure document is consistent with accurate properties and correctly assigned users. OpenText Documentum CM for Engineering allows users in a managers role to create controlled procedure registration forms.

The base object type for controlled procedure registration forms is *ao\_control\_procedure\_info*. This type has the same properties as **ao\_control\_procedure**, see “[Controlled Procedure Document Object Type and Properties](#)” on page 56 for descriptions of the object’s properties. All controlled procedure registration form configurations reflect the *ao\_control\_procedure\_info* document type in their defined **AO Control Procedure Registration Form** (contexts). The following table summarizes the series of configurations defining the access, actions, interfaces, values, and views of controlled procedure registration forms.

Configuration	Description
<b>Property page</b>	<p>Defines the properties of the registration form and controls the values that managers can enter and select when creating controlled procedure registration forms.</p> <p>The context is preconfigured to use the <b>AO Procedure Registration Form Property Page</b> configuration.</p>

Configuration	Description
<b>Inheritance</b>	Specifies the inheritance of properties, such as classification, guidance level, retention period, and roles of access. The context is preconfigured to use the <b>AO Control Procedure Registration Form Inheritance</b> configuration.
<b>Security</b>	Specifies access to the specified forms managers, forms users, and the <code>ao_admingroup</code> . The context is preconfigured to use the <b>AO Registration Form Security Model</b> configuration.
<b>Lifecycle</b>	Controls the transition of Lifecycle approval states and states that perform specified actions. The context is preconfigured to use the <b>AO Registration Form Lifecycle</b> configuration.
<b>Auto Link</b>	Specifies the dynamic location to place created and imported controlled procedure registration forms. The context is preconfigured to use <b>AO Asset Registration Form Auto Link</b> to place the form in a Library Cabinet matching the domain (AO) Registration Form folder, and a folder reflecting the created document_type.
<b>Audit</b>	Captures and records key events as registration forms progress through their lifecycle.  The context is preconfigured to use the <b>Auditing of AO Controlled Procedures</b> configuration.

### 3.1.3 Default Values Templates for Registration Forms

OpenText Documentum CM for Engineering provides the following default values for controlled procedure registration forms: **AO Procedure Registration Default**. These configurations specify the following default values.

Property	AO Default	Acme Hydro Default	Summary
<code>ao_can_be_in_transmittal</code>	False	False	Prevents inclusion of the registration form in a transmittal.
<code>ao_review_period_months</code>	0	0	Default review period months.
<code>ao_review_period_years</code>	1	1	Default review period years.

Property	AO Default	Acme Hydro Default	Summary
<b>category</b>	0	0	The security category.
<b>domain</b>	AO	Acme Hydro	Domain identifier to group configurations.
<b>form_managers</b>	ao_proc_managers	ao_hydro_proc_managers	The user group that creates and manages registration forms.
<b>form_users</b>	ao	acme_hydro_proc	User group that can access the registration form when Effective.
<b>group_name</b>	ao	acme_hydro	String used in query of form users.
<b>object_name</b>	Procedure Registration Form	Procedure Registration Form	Default form name.
<b>subject</b>	ao_proc_managers	amce_hydro_proc_m anagers	String used in query of form_managers.
<b>ao_asset_family_s</b>	Power Exploration	NA	Default asset family.
<b>ao_asset_name_s</b>	Mars	NA	Default asset name.
<b>ao_can_be_in_wo</b>	false	NA	Disables selection of a controlled procedure registration form in a work order.
<b>readers ao</b>	NA	NA	Sets the parent group of the ao roles as the default readers group.

### 3.1.4 Controlled Procedure Content Templates

Controlled procedure content templates provide the content for controlled procedure documents. OpenText Documentum CM for Engineering allows users in an administrator role to create controlled procedure content templates. For example, in the acme\_hydro application, the Hydro Admin Artifacts creation profile enables users in the acme\_hydro\_admins group to create controlled procedure content templates.

The base type for controlled procedure content templates is **ao\_content\_template**. OpenText Documentum CM for Engineering configures the access, actions, interfaces, values, and views of content templates in a context. The **AO Content Template** context pertains to documents of type **ao\_content\_template**. Using the base configuration enables OpenText Documentum CM for Engineering to share the following components.

Configuration	Description
<b>Property page</b>	Defines the name of the content template, the asset document types to which the template applies, and the reviewers who can review the template before it is effective and available to authors. The context is preconfigured to use the <b>AO Content Template Properties</b> configuration.
<b>Security</b>	Defines the permissions for authors, reviewers, and administrators. The context is preconfigured to use the <b>AO Content Template Security</b> configuration.
<b>Auto link</b>	<p>Specifies where OpenText Documentum CM for Engineering stores content templates. OpenText Documentum CM for Engineering stores content templates in the following location:</p> <p style="padding-left: 40px;">&lt;domain&gt; Library/Templates/Content Templates</p> <p>The context is preconfigured to use the <b>AO Content Template Auto Link</b> configuration.</p>
<b>Template list</b>	Specifies the template documents available to create an instance of this document. The element is preconfigured to use <b>No Content Required</b> because templates are imported.
<b>Lifecycle</b>	<p>Defines the lifecycle of a content template. The following figure illustrates the relationship between system actions and content template lifecycle states:</p> <pre> graph TD     Draft -- "PROMOTE" --&gt; Effective     Effective -- "DEMOTE" --&gt; Draft     Effective -- "CHECKIN" --&gt; Draft     Effective -- "PROMOTE" --&gt; Inactive     Inactive -- "PROMOTE" --&gt; Effective     Inactive -- "AUTO PROMOTE PRIOR VERSIONS" --&gt; Superseded     Superseded -- "PROMOTE" --&gt; Effective   </pre> <p>The context is preconfigured to use the <b>AO Content Template Lifecycle</b> configuration.</p>

Configuration	Description
<b>Workflow</b>	<p>Controls the flow of tasks for reviewing content templates and the users who can participate in the review.</p> <p>The context is preconfigured to use the <b>AO Content Template Review</b> configuration.</p>
<b>Audit</b>	<p>Specifies the properties that the system uses to audit content template events.</p> <p>The context is preconfigured to use the <b>Auditing for Content Templates</b> configuration.</p>
<b>Auto Link</b>	<p>Specifies the dynamic location for imported controlled procedure content templates.</p> <p>The context is preconfigured to use <b>AO Content Template Auto Link</b>. Templates are saved to the domain (AO) Library cabinet, Template/Content Templates sub-folder.</p>
<b>o2 Transfer configuration</b>	<p>Defines the mapping between content template properties and their corresponding fields in the Microsoft Office document, the events that trigger the transfer, and the format of the transferred date properties.</p> <p>The context is preconfigured to use the <b>o2_Asset_Template</b> configuration.</p>

### 3.1.5 Controlled Procedure Creation Profile

The configuration process centers on the **Creation Profile**. The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components:

- **Type:** The object type of each created component.
- **Default Value Template:** Supplies default values for the document type, such as user access, review period, and domain.
- **Property Page:** Defines the properties shown for a document type during the creation process.
- **Version:** The initial version of the document.
- **Inheritance:** Defines which properties are inherited from the selected folder of document when the document is created.
- **Lifecycle:** Controls document states and actions.
- **Workflow:** Defines business process for the document.

- **o2 Config:** Defines the synchronization of created document properties to Microsoft Office document files.

OpenText Documentum CM for Engineering provides the **AO Control Procedure Artifacts** creation profile with nine types of controlled documents that can be created or imported by users in the **ao\_proc\_doc\_authors** group or sub-group. The types are defined by the **AO Controlled Procedure Type** dictionary and map to the **document\_type** value of each created or imported document. The creation profile also specifies the **ao\_control\_procedure** as the object type for all listed documents. The other settings in the **AO Control Procedure Artifacts** creation profile are:

Setting	Description
<b>o2 Config</b>	<b>o2_Asset_template</b> defines the controlled procedure properties saved to Microsoft Office document properties.
<b>Property Pages</b>	<b>AO Controlled Procedure Property Page</b> defines the properties shown during create. <b>AO Controlled Procedure Edit Property Page</b> defines the properties shown when viewing properties. <b>AO Advanced Controlled Procedure Property</b> describes all properties from right-click lifecycle menu action.
<b>Version</b>	Using <b>0.1</b> enforces a major version upon becoming effective. This allows the whole number of the version to correspond to the current revision.
<b>Inheritance</b>	<b>AO Control Procedure Inheritance</b> defines the common set of inherited properties.
<b>Default Values Template</b>	<b>AO Level [1-4] Controlled Procedure</b> defines the default property values. The [1-4] level corresponds to the <b>ao_guidance_level</b> set as default.  The <b>ao_parent_guidance_level</b> defaults to a value one number less than the guidance level.  This template sets the default domain as <b>AO</b> and the group name as <b>ao</b> . This template also sets the default review period and assigns the user to the <b>authors</b> group.
<b>Lifecycle</b>	<b>AO Control Procedure Lifecycle</b> dynamically adapts to the levels of approval required.
<b>Workflow</b>	<b>AO Control Procedure Approval Workflow</b> dynamically adapts to the levels of approval required.

### 3.1.6 Controlled Procedure Lifecycles

A lifecycle controls the transition of states and action states (lifecycle states performing specified actions) of a controlled procedure. The predefined controlled procedure lifecycle dynamically provides one to four levels of required approval. This is based on the `ao_approval_level` value set in the registration form as an inherited value. The four levels of approval reflects the four levels of guidance documents defined in the PAS-55 standard. The varying levels of approvals are based on the scope and importance of the guidance document.

The following table describes the lifecycle states for **AO Controlled Procedure Lifecycle**. This Lifecycle provides the ability to associate **Effective** and **Release Pending** Controlled Procedure documents with a transmittal. If you want to give this ability to additional states, create a custom Lifecycle for your domain and add **Associate to Transmittal** to the additional states.

State	Description
<i>Draft</i>	New documents and versions added and prepared by Authors.
<i>For Review</i>	Documents that have been submitted for review by Reviewers.
<i>For L1 Approval</i>	Documents submitted for sign-off by Level 1 Approvers.
<i>For L2 Approval</i>	Documents submitted for sign-off by Level 2 Approvers.
<i>For L3 Approval</i>	Documents submitted for sign-off by Level 3 Approvers.
<i>For L4 Approval</i>	Documents submitted for sign-off by Level 4 Approvers.
<i>Release Pending</i>	Documents that have been signed off by all designated Approvers. Document Coordinators make the document Effective.
<i>Effective</i>	Documents that are approved for use and made effective. Indicated by a major version number. Readers can view the Effective version of the documents.
<i>Expired</i>	Indicates a document that was previously Effective but is now past its expiration date. Typically, Expired documents are not used, as they can be invalid. Before they expire, the documents are reviewed and expiration date is rescheduled or revised to generate a new version.

<b>State</b>	<b>Description</b>
<i>Superseded</i>	Indicates a previously-Effective version of a document that was replaced by a more recent version that was Reviewed, Approved, and made Effective. In general, Superseded versions are not recommended because they are, by definition, out-of-date. However, it is useful to retain them as historical records.
<i>Suspended</i>	Indicates an Effective document that was changed to Suspended by a Document Coordinator. This state prevents the document from being used while a modified version is being prepared, reviewed, and approved. Suspended documents can be reinstated to Effective if necessary, or changed to Superseded when the next version or replacement document becomes Effective. Alternatively, the entire document can be Withdrawn.
<i>Withdrawn</i>	Indicates retired documents. All versions are withdrawn together. Withdrawn procedures cannot be versioned, but can be copied to create a document. Document Coordinators can withdraw a document at any time, which affects all versions. Users are not allowed to create new versions of a Withdrawn document. However, it can be reverted to Draft if necessary, to enable its content to be reused, or deleted. Withdrawn documents can be retained as historical records.

### 3.1.7 Controlled Procedure Lifecycle Permissions

The following table lists user permissions for AO **Controlled Procedure Lifecycle** states. In addition, if `ao_can_be_in_transmittal` is true, members of `ao_tr_controllers` are granted relate access to associate with a transmittal. Members of `ao_admins` have default DELETE access.

Members of the parent `ao` group have READ access to Effective controlled procedures and no access to any other state.

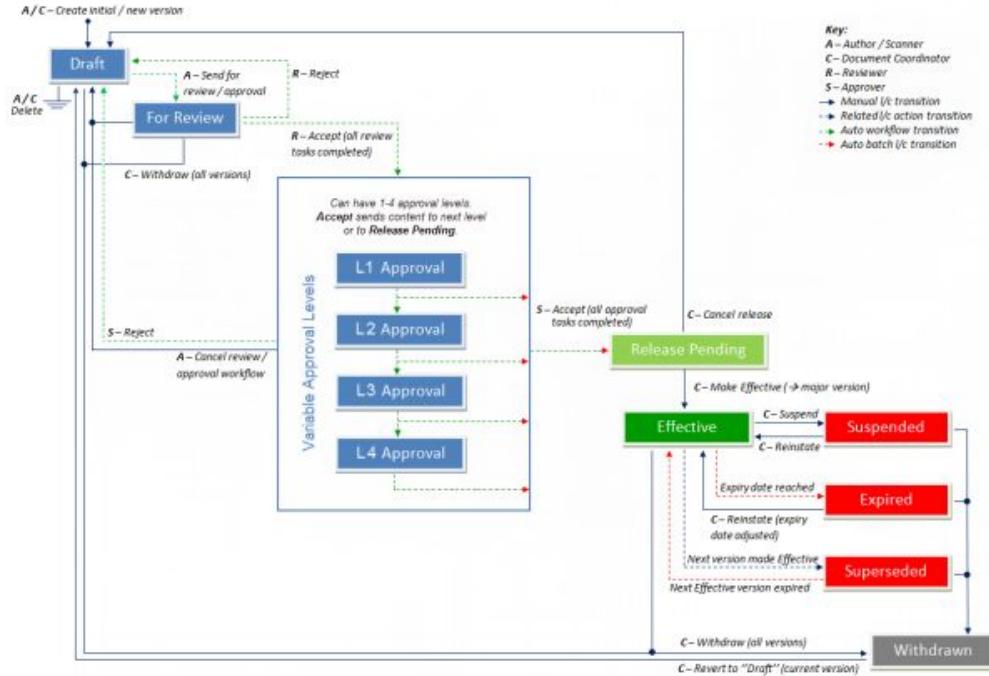
Users and groups assigned to the control procedure's to be read distribution have READ access to Release Pending and Effective documents for acknowledging they have read and understood the updated procedure prior to or when effective, respectively. Members also have BROWSE access to expired, superseded, suspended, and withdrawn versions to see if other versions of the procedure exist.

State	Authors	Document Coordinators	Reviewers	Approvers	L2 Approvers	L3 Approvers	L4 Approvers	Recipients	Readers	Auditors	Default
Draft	D	W	W	N	N	N	N	N	N	N	N
For Review	REL	REL	REL	N	N	N	N	N	N	N	N
For L1 Approval	R	R	R	R	N	N	N	N	N	N	N
For L2 Approval	R	R	R	R	R	N	N	N	N	N	N
For L3 Approval	R	R	R	R	R	R	N	N	N	N	N
For L4 Approval	R	R	R	R	R	R	R	N	N	N	N
Release Pending	V	V	R	R	R	R	R	R	N	R	N
Effective	V	V	R	R	R	R	R	R	R	R	N
Expired	V	V	R	R	R	R	R	B	N	R	N
Superseded	V	V	R	R	R	R	R	B	N	R	N
Suspend	V	V	R	R	R	R	R	B	N	R	N
Withdrawn	R	R	R	R	R	R	R	B	N	N	N

D = DELETE, R = READ, W = WRITE, N = NONE, REL = RELATE, V = VERSION, B = BROWSE

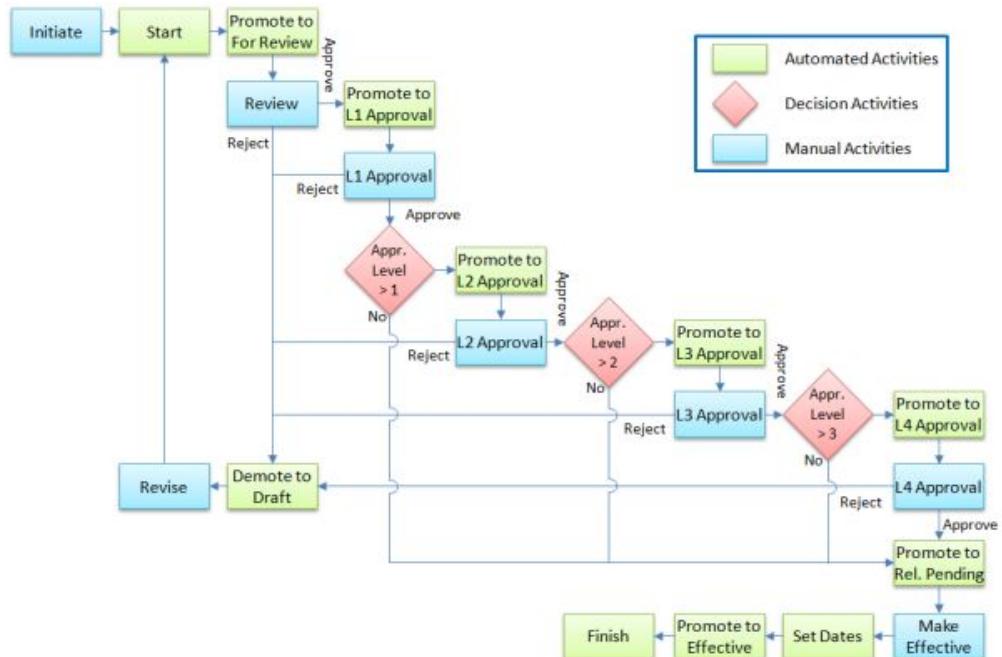
### 3.1.8 Controlled Procedure Lifecycle Diagram

The following figure illustrates the lifecycle and state transitions for AO Controlled Procedure Lifecycle:



### 3.1.9 Controlled Procedure Workflow

The following figure illustrates the flow of workflow activities in the AO Control Procedure Approval Workflow:



The flow through the different workflow states proceeds as follows:

- **Initiate:** Presents the workflow initiator with a read-only summary of workflow participants with a comment to cancel if the participants are incorrect. Levels one through four approvers are all shown since configurable visibility is not provided.
- **Promote to For Review:** Promotes the routed package to **For Review** state on the **AO Controlled Procedure Lifecycle**. Routes package to **Review** task.
- **Review:** Performed by the reviewers members. Enforces signoff and indication on forward and provides a **CP Review Intention Codes** dictionary of selections. On forward, routes package to **Promote to L1 Approval** task. On reject, routes package to **Demote to Draft** task.
- **Promote to L1 Approval:** Promotes the routed package to **For L1 Approval** state on the **AO Controlled Procedure Lifecycle**. Forwards package to **L1 Approval** task.
- **L1 Approval:** Performed by approvers members. Enforces sign-off and indication on forward and provides a **CP Approval Intention Codes** dictionary of selections. On approval, routes package to **Approval Level > 1**. On reject, routes package to **Demote to Draft**.
- **Approval Level > 1:** Forwards package to **Promote to L2 Approval** if **ao\_approval\_level** is greater than one. Otherwise, forwards to **Promote to Release Pending** task.
- **Promote to L2 Approval:** Promotes the routed package to **For L2 Approval** state on the **AO Controlled Procedure Lifecycle**. Forwards package to **L2 Approval** task.
- **L2 Approval:** Performed by **ao\_level2\_approvers** members. Enforces sign-off and indication on forward and provides a **CP Approval Intention Codes** dictionary of selections. On approve, forwards package to **Approval Level > 2** task. On reject, forward to **Demote to Draft** task.
- **Approval Level > 2:** Forwards package to **Promote to L3 Approval** if **ao\_approval\_level** is greater than two. Otherwise, forwards to **Promote to Release Pending** task.
- **Promote to L3 Approval:** Promotes the routed package to **For L3 Approval** state on the **AO Controlled Procedure Lifecycle**. Forwards package to **L3 Approval** task.
- **L3 Approval:** Performed by **ao\_level3\_approvers** members. Enforces signoff and indication on forward and provides a **CP Approval Intention Codes** dictionary of selections. On approve, forwards package to **Approval Level > 3** task. On reject, forwards package to **Demote to Draft** task.
- **Approval Level > 3:** Forwards package to **Promote to L4 Approval** if **ao\_approval\_level** is greater than two. Otherwise, forwards package to **Promote to Release Pending** task.
- **Promote to L4 Approval:** Promotes the routed package to **For L4 Approval** state on the **AO Controlled Procedure Lifecycle** and forwards to **L4 Approval** task.

- **L4 Approval:** Performed by **ao\_level4\_approvers** members. Enforces sign-off and indication on forward and provides a **CP Approval Intention Codes** dictionary of selections. On approve, forwards package to **Promote to Release Pending** task. On reject, forwards package to **Demote to Draft** task.
- **Promote to Release Pending:** Promotes the routed package to **Release Pending** state on the **AO Controlled Procedure Lifecycle** and forwards to **Make Effective** task.
- **Make Effective:** Performed by the **document\_controller** members. Presents a dialog to set the recipients, readers and effectivity parameter values; and, confirm the next release date period. Forwards on complete to **Set Dates**.
- **Set Dates**
- **Promote to Effective:** Promotes the routed package to **Effective** state on the **AO Controlled Procedure Lifecycle** and forwards to **Finish** task to complete the workflow.
- **Demote to Draft:** Demotes the routed package to the **Draft** state on the **AO Controlled Procedure Lifecycle** and forwards to the **Revise** task.
- **Revise:** Performed by one of the authors members to revise the control procedure based on provided remarks. Forwards revised package to **Promote to For Review** on completion (slight variance with diagram).

### 3.1.10 Auditing

Use auditing to capture and record key events as documents progress through their lifecycle. You can audit events for each category of documents independently.

For controlled procedure documents, the following events are audited in the default configuration **Auditing of AO Controlled Procedures**:

- Document creation
- Document deletion (including OpenText Documentum CM client configuration recycle bin deletions)
- Document versioning (check-in events)
- Document property updates
- Document lifecycle state changes
- Creation of relations
- Removal of relations
- Workflow initiation
- Workflow termination (abort events)
- Workflow task acquisition
- Workflow task forwarding
- Workflow task rejection

- Workflow task delegation

For registration forms, the following events are audited in the default configuration:

- Form creation
- Form deletion
- Form property updates
- Form lifecycle state changes

### 3.1.11 Controlled Procedure Document Object Type and Properties

OpenText Documentum CM for Engineering provides a controlled procedure document object type named **ao\_control\_procedure**. To see the type details, log in to Documentum Composer and find the type under your project folder in: **Artifacts > Types**. The following tables describe the type properties. If you need to add additional properties, create a sub-type of **ao\_control\_procedure**.

The following properties define the roles of users who access the document. A dynamic query determines the available users or groups to select in each property defining access. The query reflects the group\_name prefix assigned by default when the document is created, and a naming convention for the group name suffix.

Property	Description
<b>ao_approval_level</b>	The maximum level of approval required for the document. Configured for a value of one through four.
<b>authors</b>	The users and groups responsible for: <ul style="list-style-type: none"><li>• creating and editing document content</li><li>• setting up the majority of the document metadata</li></ul>
<b>reviewers</b>	The users and groups responsible for reviewing the document when submitted for review.
<b>approvers</b>	The users and groups responsible for approving a document that has been submitted to them for approval in a formal review or approval workflow.
<b>ao_level2_approvers</b>	The users and groups responsible for second-level approval of a document that has been submitted to them for approval in a formal review or approval workflow.

<b>Property</b>	<b>Description</b>
<b>ao_level3_approvers</b>	The users and groups responsible for third-level approval of a document that has been submitted to them for approval in a formal review or approval workflow.
<b>ao_level4_approvers</b>	The users and groups responsible for fourth-level approval of a document that has been submitted to them for approval in a formal review or approval workflow.
<b>doc_coordinators</b>	The users and groups responsible for releasing a document and managing it after its release.
<b>tbr_distribution_list</b>	The users and groups who should read the document when it is ready for release, but before it becomes Effective.
<b>readers</b>	The users and groups groups who can read the document when it has been released for general use. These users may not be able to modify a document, but they can raise a change request against it if a change is necessary.
<b>auditors</b>	<p>The users and groups with access to the repository who can act as either internal or external Auditors.</p> <p>These users can read:</p> <ul style="list-style-type: none"> <li>• released versions of documents</li> <li>• documents scheduled for release</li> <li>• documents that are or have been suspended or superseded (i.e. previously-released versions)</li> </ul> <p>These users cannot read work-in-progress versions or withdrawn documents.</p>

The controlled procedure document type provides several sets of properties specifying the applicable scope of the document. OpenText Documentum CM for Engineering configures all of these properties as faceted indexes to automatically group faceted simple search results. Four provided repeating properties define the scope of assets. These properties are correlated to an asset taxonomy.

<b>Property</b>	<b>Description</b>
<b>ao_asset_family, ao_asset_family_s</b>	Single (_s) and repeating asset family for this guidance document (top level asset classification).

Property	Description
<b>ao_asset_type, ao_asset_type_s</b>	Single (_s) and repeating asset type for this guidance document (second level asset classification).
<b>ao_asset_subtype, ao_asset_subtype_s</b>	Single (_s) and repeating asset subtype for the guidance document (third level asset classification).
<b>ao_asset_name, ao_asset_name_s</b>	Single (_s) and repeating asset(s) for the guidance document.

Four provided repeating properties define the business process(es) that pertain to the document. These properties correlate to an asset management process taxonomy.

Property	Description
<b>ao_doc_business_process_0, ao_doc_business_process_0_s</b>	Single (_s) and repeating associated business process classification for this controlled procedure.
<b>ao_doc_business_process_1, ao_doc_business_process_1_s</b>	Single (_s) and repeating second-level business process classification for this controlled procedure.
<b>ao_doc_business_process_2, ao_doc_business_process_2_s</b>	Single (_s) and repeating third-level business process classification for this controlled procedure.
<b>ao_doc_business_process_3, ao_doc_business_process_3_s</b>	Single (_s) and repeating fourth-level business process classification for this controlled procedure.

Four provided repeating properties define the organizational scope of the document. These properties correlate to an organizational taxonomy.

Property	Description
<b>ao_asset_corporation</b>	The top level organizational classification specifying the scope of the controlled procedure. This enables assets of the company to reflect spin-off.
<b>ao_asset_organization</b>	The second-level organizational classification specifying the scope of the controlled procedure.
<b>ao_asset_org_functional_area</b>	The third-level organizational classification specifying the scope of the controlled procedure.
<b>ao_asset_org_subfunction</b>	The fourth-level organizational classification specifying the scope of the controlled procedure.

Three provided properties define the classification of the document. These properties correlate to a document type taxonomy where the document type equates to the bottom classification.

Property	Description
<b>ao_doc_type_category</b>	The top level category classification of a document type.
<b>ao_doc_type_name</b>	The second level classification of the document type.
<b>ao_doc_subtype_name</b>	The third level classification corresponding to the specific type of document created.

Controlled procedure documents pertaining to specific equipment are identified by the equipment name or label (ao\_asset\_equipment\_label), and number (ao\_asset\_equipment\_number).

The remaining properties reflect different aspects of the controlled procedure.

Property	Description
<b>ao_review_period_mos</b>	Client defined fixed review period months.
<b>ao_review_period_yrs</b>	Client defined fixed review period years.
<b>ao_asset_lifecycle</b>	Asset lifecycle phase(s) of the controlled procedure.
<b>ao_discipline</b>	Associated discipline of the controlled procedure.
<b>ao_distribution_version</b>	Specifies if this controlled procedure is for Internal or External distribution (dictionary selection).
<b>ao_guidance_level</b>	<p>The level or rank of this controlled procedure in the hierarchy of corporate controlled procedures.</p> <ul style="list-style-type: none"> <li>• 1: Corresponds to corporate-level policies</li> <li>• 2: Correspond to divisional standards</li> </ul> <p>Related controlled procedures would have the same guidance level. Defaulted for all document types.</p>
<b>ao_ownership</b>	Identified corporate position that owns this controlled procedure.

Property	Description
ao_parent_guidance_level	Controlled procedures can reflect the parent controlled procedure (e.g. Procedure detailed in Work Instruction). This value is one less than guidance level to facilitate search for parent controlled procedures. May be unnecessary. Defaulted for all document types.
ao_procedure_region	The regional scope of controlled procedure.
ao_procedure_security	Security classification of the controlled procedure. This often implies accessibility to other parties.
ao_stakeholders	Stakeholders of controlled document.
ao_timescale	Target date of the controlled procedure.

## 3.2 Configuring Dictionaries and Taxonomies

Create the dictionaries and taxonomies that define the types of documents your users can create along with the allowable values for different properties and valid classifications of controlled procedures. For more information about dictionaries and taxonomies, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

### 3.2.1 Creating the Management Artifacts Dictionary

The Management Artifacts dictionary defines the registration forms that your management group can create. OpenText Documentum CM for Engineering provides the AO Management Artifacts dictionary which lists registration forms that can be created by members of the ao\_managers group. The AO Registry Artifacts creation profile associates the ao\_managers group with the registration forms listed in the dictionary. The AO Management Artifacts dictionary contains three types of registration form:

- AO Document Registration Form: Provides default metadata for asset documents.
- Control Procedure Registration Form: Provides default metadata for controlled procedures.
- Document Type Registration Form: Provides default metadata for a document based on the document type.

Perform the following steps to adapt this dictionary to reflect the naming of artifacts created by a client.

1. In client configuration, select **Data > Dictionary** and select **AO Management Artifacts**.

2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Dictionary.
3. Supply the following values and save your changes:
  - **Groups tab > Administration group:** The administrators group for the application. For example, acme\_hydro\_admins.
  - **Labels tab:** Optionally provide a label to appear before the list of artifacts when creating or importing a document.
  - **Languages tab > Key column:** supply a name for controlled procedure artifact.
  - **Languages tab > English column:** supply an English name for the artifact.
  - Optionally, add additional columns to define the name of the artifact in other languages if the repository is configured for additional languages (Data dictionary languages of the repository object).

### 3.2.2 Creating the Admin Artifacts Dictionary

The Admin Artifacts dictionary defines the documents that your administrator group can create. OpenText Documentum CM for Engineering provides the AO Admin Artifacts dictionary which lists documents that can be created by members of the ao\_admin group. The AO Admin Artifacts creation profile associates the ao\_admin group with the documents listed in the dictionary. The AO Admin Artifacts dictionary contains three types of documents:

- **Auto Inheritance Configuration:** Defines rules to dynamically find matching registration forms or other documents and apply metadata values.
- **Content Template:** Provides default content files configured with the artifacts that can employ this template.
- **Procedure Content Template:** Provides default content files configured with the controlled procedure artifacts that can employ this template.

Perform the following steps to adapt this dictionary to reflect the naming of artifacts created by a client.

1. In client configuration, select **Data > Dictionary** and select **AO Admin Artifacts**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the dictionary.
3. Provide the following values and save your changes:
  - **Groups tab > Administration group:** the administrators group for the application. For example, acme\_hydro\_admins.
  - **Labels tab:** you can optionally provide a label to appear before the list of artifacts when creating or importing a document.
  - **Languages tab > Key column:** supply a name for the controlled procedure artifact.

- **Languages** tab > **English** column: supply an English name for the controlled procedure artifact.
- Optionally, add additional columns to define the name of the artifact in other languages if the repository is configured for additional languages (Data dictionary languages of the repository object).

### 3.2.2.1 Configuring AO Auto Inherit Default Value Template

Defines rules to dynamically find matching registration forms or other documents and apply metadata values.

Category	Description
Default Values Template	<p>You can use default value templates to define the default values assigned to properties when Auto Inherit Configuration is created.</p> <p><b>AO Auto Inherit Defaults</b> is the defined auto inherit default values template. The <b>AO Auto Inherit Defaults</b> default value template contains the following values:</p> <ul style="list-style-type: none"> <li>• <b>Properties</b> column: If required, add a new entry for automatic events attribute.</li> <li>• <b>Values</b>: column: For <b>automatic_events</b> attribute, you can set <b>Create</b>, <b>Update</b> or both.</li> </ul>

### 3.2.2.2 Configuring the Lifecycle

1. In client configuration, click **Go to** and select **Lifecycle**.
2. Select **AO Cat 3 Document Lifecycle**. You can select any of the document type that you want to configure for auto inheritance.
3. Navigate to the **Init** lifecycle state in **Lifecycle** section.
4. Click **Init**.
5. In the **Parameters** section, ensure that the **CDFApplyAttributeInheritanceMethod** method is selected.
6. Ensure that you add the following content for extra arguments.

```
-config_folder "/AO Library/Auto Attribute Inheritance Config"
```

If required, you can customize the path where the **Auto Inherit Configuration** rule is autolinked.



**Note:** This can be added for all the document lifecycle documents that you want the auto inheritance to work.

7. Clear the client configuration cache.
8. Restart the Java Message Server.

### 3.2.3 Creating the Controlled Procedure Type Dictionary

The controlled procedure type dictionary defines the types of controlled procedure documents that can be created by your procedure authors group. OpenText Documentum CM for Engineering provides the AO Controlled Procedure Type dictionary which lists nine common types of controlled procedures that can be created by members of the ao\_proc\_doc\_authors group. The AO Control Procedure Artifacts creation profile associates the ao\_proc\_doc\_authors group with the controlled procedure documents listed in the dictionary. The AO Controlled Procedure Type dictionary contains the following sample controlled procedure documents:

- Bulletin
- Contingency Plan
- Objective
- Plan
- Policy
- Procedure
- Standard
- Strategy
- Work Instruction

Perform the following steps to adapt this dictionary to reflect the naming of controlled procedure artifacts created by a client.

1. In client configuration, select **Data > Dictionary** and select **AO Controlled Procedure Type**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the dictionary.
3. Supply the following values and save your changes:
  - **Groups tab > Administration group:** the administrators group for the application. For example, acme\_hydro\_admins.
  - **Languages tab > Key and English columns:** These columns contain the names of all controlled procedure documents your users can create. The list is pre-populated with the document names used in the Acme Hydro sample application. Add to or subtract from this list to reflect the names of the documents you need for your solution.

### 3.2.4 Configuring Taxonomies

Taxonomies define the tiered values of metadata that classify documents according to organization, business process, document type, and project. To see the list of existing taxonomies of values, in OpenText Documentum CM client configuration, click the **Data** menu and select **Taxonomies**.

If you need to create custom taxonomies for your controlled procedure registration forms or documents, you can use the existing taxonomies as an example to follow when making your own. To change taxonomies, create a new dictionary and new taxonomy. Then, apply the dictionary values to the new taxonomy.



#### Caution

Do not alter any of the existing taxonomies. If you need to make changes, use one of the existing taxonomies to create a new taxonomy, and make your changes in the new taxonomy.

## 3.3 Enabling Managers to Create Registration Forms

Assets Operations enables creation of registration forms by users in a manager role. Registration forms are content-less documents providing default metadata values for consistency and simpler document creation. The control procedure registration form object type, **ao\_control\_procedure\_info** has the same properties as **ao\_control\_procedure**. The sub-type enables configuration of registration forms separate from controlled procedures.

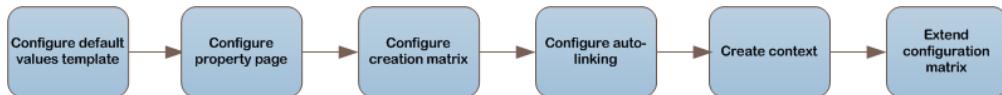
The configuration procedure varies depending on your requirements. The following table lists the major configuration tasks, the name of the base configuration for the task, and a description to help you decide if you can use the base configuration or if you need to create a custom configuration.

Configuration Type	Base Item	Customization Required?
Object Type	<b>ao_control_procedure_info</b>	If the base object type does not contain the properties you need, create a custom object type.  To see the properties of <b>ao_control_procedure_info</b> , see “Controlled Procedure Document Object Type and Properties” on page 56.  See “Adapting OpenText Documentum CM for Engineering Configurations” on page 74 for instructions on configuring for a custom type.

Configuration Type	Base Item	Customization Required?
Property Page	AO Procedure Registration Form Property Page	Create a new configuration to reflect mapped property values and any updates to the shown properties and layout.
Inheritance	AO Control Procedure Registration Form Inheritance	If you created a custom object type for Controlled Procedure Registration Forms, create a new Inheritance configuration. See <a href="#">“Configuring Inheritance” on page 75</a> .  If you did not create a new object type, use the base configuration.
Security	AO Registration Form Security Model	You do not need to create a new Security configuration.  This configuration defines Registration Form access for ao_admins, form_managers, and form_users.
Auto Link	AO Asset Registration Form Auto Link	Create a new configuration to reflect your folder security model.
Template List	N/A	No update required because Registration Forms do not have content.
Lifecycle	AO Registration Form Lifecycle	No update required.
Audit	Auditing of AO Controlled Procedures.	If the audited events in the base configuration are sufficient, you do need to create a new configuration.  If you want to audit additional events, create a new audit configuration and ensure you select it when extending the client configuration matrix for your context.
o2 Transfer Configuration	AO Control Procedure Template	No update required.

Configuration Type	Base Item	Customization Required?
Default Values Template	AO Procedure Registration Default	Create a new configuration to supply default values for Controlled Procedure Registration Forms created in your application.
Creation Profile	AO Control Procedure Artifacts	Create a new configuration to define the Registration Forms that your user group can create.

The following figure illustrates the process for enabling managers to create controlled procedure registration forms:



This procedure uses the base controlled procedure registration form type: `ao_control_procedure_info`, which is described in “[Controlled Procedure Registration Forms](#)” on page 44. If your application requires additional properties not included in `ao_control_procedure_info`, create a custom controlled procedure type extending `ao_control_procedure` and defining a registration form sub-type. Refer to “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 74 for instructions on configuring OpenText Documentum CM for Engineering for a custom type.

### 3.3.1 Configuring the Default Values Template

The AO Procedure Registration Default Default values template provides default values that simplify creating your own default values for your domain. See “[Default Values Templates for Registration Forms](#)” on page 45 for a description of these default values. Use the **Create from** option, to define default values for controlled procedure registration forms created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Procedure Registration Default**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Default Values Template.
3. Configure the following properties and save your changes:
  - **ao\_can\_be\_in\_transmittal: false**  
Registration forms do not contain content (only metadata), so they should never be included in transmittals.
    - **ao\_can\_be\_in\_wo: false**  
Registration forms do not contain content (only metadata), so they should never be included in work orders.

- Update the review period for controlled procedures created by this template:
  - **ao\_review\_period\_mos:** 0
  - **ao\_review\_period\_yrs:** 1
- **category:** 0  
This value ensures that the form does not inherit asset document security settings.
- **domain:** your domain name, for example, Acme Hydro. This value helps group configurations.
- **form\_managers:** The group of managers that can create and revise controlled procedure registration forms, for example, acme\_hydro\_proc\_managers.
- **form\_users:** The group of users that can access registration forms, for example, acme\_hydro\_proc.
- **group\_name:** The group name prefix that is common to all group names. This prefix is used for selecting default users or groups for different roles of access. For example, acme\_hydro\_proc.
- **object\_name:** A default object name. For example, Procedure Registration Form.
  - **ao\_asset\_family\_s:** A default asset family, Power Exploration.
  - **ao\_asst\_name\_s:** A default asset, Mars.

### 3.3.2 Configuring the Properties Page

OpenText Documentum CM for Engineering provides a multi-tabbed property page for Controlled Procedure Documents and for Controlled Procedure Registration forms. Any alteration or addition to the provided property pages must be implemented as a new property page.

The table in this procedure identifies some settings that may need updating for your Controlled Procedure Registration Form properties.

1. In client configuration, select **Go to > Property page** and select **AO Procedure Registration Form Page**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Property Page.
3. If you created a custom document type for Controlled Procedure Registration Forms, select the custom type in the **Document type** list box. If you did not create a custom type, leave the default value in place.
4. Expand the Properties folder and then expand the unlabeled folder.
5. Update the properties as described in the following table and modify or remove any properties requiring an update:

Tab	Fieldset	Settings
Settings	ao_stakeholders	Stakeholders lists the document stakeholders. This list is not tied to a dictionary selection list.
	ao_timescale	Target date is a date field with no validation the date is on or after today.
	ao_distribution_version	Distribution Version is tied to the <b>Distribution Version</b> dictionary providing two values: Internal and External.
	ao_ownership	Ownership is a free text entry of the owner of the controlled procedure.
	Review Period	Months relates the <b>Review Period Months</b> dictionary to <b>ao_review_period mos</b> providing the values '0' through '11'. Years relates the <b>Review Period Years</b> dictionary for <b>ao_review_period yrs</b> providing the values '0' to '3'.
Scope	Guidance Level	Select your taxonomy for the <b>ao_guidance_level</b> and <b>ao_parent_guidance_level</b> properties.
	Organization Scope	Configures the organizational scope values to the four levels of the Acme Utility Organization taxonomy for the following properties: <ul style="list-style-type: none"> <li>• <b>ao_asset_corporation</b></li> <li>• <b>ao_asset_organization</b></li> <li>• <b>ao_asset_org_function_area</b></li> <li>• <b>ao_asset_org_subfunction</b></li> </ul>

Tab	Fieldset	Settings
	Asset Scope	<p>Configures the asset classification corresponding to the document:</p> <ul style="list-style-type: none"> <li>• <code>ao_asset_family_s</code></li> <li>• <code>ao_asset_name_s</code></li> <li>• <code>ao_asset_facility</code></li> <li>• <code>ao_asset_area</code></li> <li>• <code>ao_asset_system</code></li> <li>• <code>ao_asset_subsystem</code></li> </ul> <p>The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSK Coding standard Z-DP-002.</p>
	Equipment Scope	<p>Family, function, type and equipment numbers for the controlled procedure. The AO_MajorFunction_Function_Type taxonomy reflects the NORSK Coding standard for:</p> <ul style="list-style-type: none"> <li>• <code>ao_tag_major_function</code></li> <li>• <code>ao_tag_function</code></li> <li>• <code>ao_tag_type</code></li> </ul> <p><code>ao_asset_equipment_number</code> should correspond to a query or list of equipment.</p>
	Region Scope	<p>Displays list box of value from your geographic regions dictionary for the <code>ao_procedure_region</code>.</p>
	Business Process Scope	<p>Configures the business process values to the four levels of the Business Process taxonomy for the following properties:</p> <ul style="list-style-type: none"> <li>• <code>ao_doc_business_process_0_s</code></li> <li>• <code>ao_doc_business_process_1_s</code></li> <li>• <code>ao_doc_business_process_2_s</code></li> <li>• <code>ao_doc_business_process_3_s</code></li> </ul>
	Access	<p>Above the Divider</p> <p>Displays the security category, review date, status (reflecting the lifecycle state), approved date, levels of approval, and effective date. The review, approval and effective dates only display on edit.</p>

Tab	Fieldset	Settings
	Coordinators	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_coordinators.
	Authors	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_authors.
	Reviewers	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_reviewers.
	Level One Approvers	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l1_approvers.
	Level Two Approvers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l2_approvers displayed when the Levels of Approval is greater than one.
	Level Three Approvers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l3_approvers displayed when the Levels of Approval is greater than two.
	Level Four Approvers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l4_approvers displayed when the Levels of Approval is greater than three.
	Readers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_readers.
	TBR Distribution List	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_recipients.

Tab	Fieldset	Settings
	Auditors	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_auditors.
Document Info	N/A	Displays standard document metadata upon edit. For example, object ID, object type, version label, owner name, content type, creator, and creation date, modifier and last.modified date, checked out by and checkout date, and content size.
Legacy Data   <b>Note:</b> Shown only in AO Advanced Controlled Procedure Property.	Legacy	Provides a set of legacy metadata values reflecting prior values in another system.

6. Add any new properties required by your customization.
7. Click **Save**.

### 3.3.3 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document mostly uses pre-defined components, customizing only those components that most customers will need to customize. OpenText Documentum CM for Engineering configures three types of registration forms:

- **AO Document Registration Form:** Registration forms used when creating operational and maintenance documents.
- **Control Procedure Registration Form:** Registration forms used when creating controlled procedures.
- **Document Type Registration Form:** Registration forms matching the type of created document. These forms provide additional inherited metadata.

Configure a creation profile for registration forms according to the following steps.

1. In client configuration, select **Creation > Creation profile** and select **AO Registry Artifacts**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your creation profile.

3. Configure the following properties:
  - **Label en:** Type a label name in the box (for example, Hydro Forms). This label appears above the drop-down list of artifacts when your user creates or imports registration forms. If your repository is configured for other languages, additional label values display for those languages.
  - **Users group:** Select the users group for the managers that can create registration forms. For example, **acme\_hydro\_managers**.
  - **Dictionary:** Specify the artifacts dictionary you configured in “[Creating the Management Artifacts Dictionary](#)” on page 60.
4. In the table at the bottom of the page, create a new row and select the following values in their respective columns and save your changes:
  - **document\_type** column: Select the registration form name you created in “[Creating the Management Artifacts Dictionary](#)” on page 60.
  - **Type** column: Select **ao\_control\_procedure\_info**. This is the base type for controlled procedure registration forms. If you created your own custom type, select the custom type instead.
  - **O2 config** column: Leave this option blank. There is no configured transfer of properties to content files because registration forms have no content.
  - **Property pages** column: Select the Property Page you created in “[Configuring the Properties Page](#)” on page 67.
  - **Version** column: **0.1**. This value ensures that the first effective version of the registration form is version 1.0.
  - **Inheritance** column: Select **AO Control Procedure Inheritance**. This is the base inheritance definition for controlled procedure registration forms. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template** column: Select the template you created in “[Configuring the Default Values Template](#)” on page 66.
  - **Lifecycle** column: select **AO Registration Form Lifecycle**. This is the base lifecycle definition for controlled procedure registration forms. If you created your own lifecycle definition, select the custom lifecycle definition instead.
  - **Workflow** column: Leave this column blank.

### 3.3.4 Configuring Auto-linking

OpenText Documentum CM for Engineering provides sample auto-linking rules for controlled procedure registration forms named **AO Asset Registration Form Auto Link**. Perform the following steps to configure auto-linking of controlled procedure registration forms for your application:

1. In client configuration, select **Go to > Auto link** and select **AO Asset Registration Form Auto Link**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Auto link definition.
3. In the **Path** section, apply your folder security model (created in “[Configure Folder Security Model](#)” on page 37) to all folders in the path. The defaulted Domain setting of the new application places instance registration forms within a different domain library cabinet.
4. Click **Save**.

### 3.3.5 Creating the Context

Contexts provide logical groupings of content qualified by conditions that are composed of properties such as document type, DQL condition, and user group. Contexts determine when a configuration element applies to content within the repository.

OpenText Documentum CM for Engineering provides the **AO Control Procedure Registration Form** context which pertains to all content of type **ao\_control\_procedure\_info**. The client configuration matrix for this context specifies the following settings:

- **AO Control Procedure Registration Form Inheritance:** Defines which properties should be inherited.
- **AO Registration Form Security Model:** Specifies access for forms managers, forms users, and **ao\_admingroup**.
- The **No Content Required** value for the configuration matrix **Template List** setting. No content is required because registration forms do not have templates.
- **AO Registration Form Lifecycle:** Provides a simple configuration for Draft, Effective, and Inactive states.

The Acme Hydro sample application has a similar context, **Acme Hydro Cont Proc Registration Form**, pertaining to all content of type **ao\_control\_procedure\_info** and qualified by *domain='Acme Hydro'*. Perform the following steps to create the registration form context of a new application:

1. In client configuration, select **Goto > Context** and select **AO Control Procedure Registration Form**.

2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Context.
3. Supply the following values:
  - **Selection:** Ensure **ao\_controlled\_procedure\_info** appears in the list.
  - **Condition:** Define the domain condition for your application. For example:

```
1 domain='Acme Hydro'
```
4. Save your changes.
5. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Control Procedure Registration Form** context.

### 3.3.6 Extending the Configuration Matrix

The client configuration matrix specifies the settings for your controlled procedure registration form context that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 73.
2. For this context, make the following selections and save your changes:
  - **Property Page:** Select the Property page you created in “[Configuring the Properties Page](#)” on page 67.
  - **Auto Link:** Select the Auto Linking definition you created in “[Configuring Auto-linking](#)” on page 73.

### 3.3.7 Adapting OpenText Documentum CM for Engineering Configurations

If your controlled procedure registration forms require additional properties that are not available in **ao\_control\_procedure\_info**, you must create a custom registration form type, and then configure the client configuration components to make use of the new properties.

### 3.3.7.1 Creating the Object Type

Perform the following steps to extend the **ao\_controlled\_procedure\_info** registration form object type with the additional properties required for your application. This must be done in coordination with corresponding updates to the controlled procedure document object type, see “[Creating the Object Type](#)” on page 93.

1. In Documentum Composer, create a controlled procedure document type.
2. Select **ao\_controlled\_procedure\_info** as the **Supertype**.

This enables your custom type to inherit the properties of **ao\_controlled\_procedure\_info**.

3. Ensure you name your type according to the following naming convention:

1 **prefix\_controlled\_procedure\_info**

where *prefix* is the prefix you've chosen for your custom application. For example: acme\_hydro\_controlled\_procedure\_info.

4. Add your custom properties to the type.
5. Package the new object type as a Document Archive and install the Documentum project.

For more information about creating, configuring, packaging and deploying new types, see *OpenText Documentum Composer Online Help*.

### 3.3.7.2 Configuring the Default Values Template

Configure a default values template to define default values for controlled procedure registration forms created in your application. If your new properties need default values, ensure you add the new properties to the default value template. Create the default value template using the steps shown in “[Configuring the Default Values Template](#)” on page 66.

### 3.3.7.3 Configuring Inheritance

Inheritance enables you to define the properties inherited from a selected document or folder. To keep all the inheritance rules automatically configured for **ao\_controlled\_procedure\_info**, base the new inheritance definition on the base inheritance definition. Add new properties to the inheritance definition as needed.

1. In client configuration, select **Go to > Inheritance** and select **AO Control Procedure Registration Form Inheritance**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Inheritance definition.
3. Define any additional inherited values required by your application. For more information about inheritance, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

4. Click **Save**.

#### 3.3.7.4 Configuring the Property Page

Create a new Property page as shown in “Configuring the Properties Page” on page 67.

#### 3.3.7.5 Configuring Auto-linking

Use the steps in “Configuring Auto-linking” on page 73 to configure auto linking for your application.

#### 3.3.7.6 Creating the Lifecycle

If any of your new properties need to be set or changed as a registration form goes through a lifecycle, you must create a new lifecycle. Use **Create from** to create a new lifecycle based on the base controlled procedure lifecycle: **AO Control Procedure Lifecycle**. Add your new actions in the **Action Type** and **Action Parameter** table.

#### 3.3.7.7 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components.

1. In client configuration, click **Creation > Creation profile** and select **AO Registry Artifacts**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Creation profile.
3. Supply the following values:
  - **Label en:** Type a label name in the box (for example, Hydro Forms). This label appears above the drop-down list of artifacts during create or import. If the repository is configured for other languages, additional label values display for those languages.
  - **Users group:** Select the users group for the managers that can create registration forms. For example, Acme Hydro Managers.
  - **Dictionary:** Select the dictionary you created in “Creating the Management Artifacts Dictionary” on page 60.
4. Create a new row and select the following values in their respective columns:
  - **document\_type** column: Select the registration form name you created in “Creating the Management Artifacts Dictionary” on page 60.
  - **Type** column: Select the type you created in “Creating the Object Type” on page 75.
  - **O2 config** column: Leave this column blank.

- **Property pages** column: Select the property page you created in “Configuring the Property Page” on page 76
  - **Version** column: **0.1**. This value ensures that the first effective version of the registration form is version 1.0.
  - **Inheritance** column: Select the inheritance definition you created in “Configuring Inheritance” on page 75
  - **Default Values Template** column: Select the template you created in “Configuring the Default Values Template” on page 75.
  - **Lifecycle** column: Select the lifecycle you created in “Creating the Lifecycle” on page 76.
  - **Workflow** column: Leave this column blank.
5. Click **Save**.

### 3.3.7.8 Creating the Context

Contexts provide logical groupings of content qualified by conditions that are composed of properties such as document type, DQL condition, and user group. Contexts determine when a configuration element applies to content within the repository. Create a new context for your custom type.

1. In client configuration, select **Go to > Context** and select **AO Control Procedure Registration Form**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Context.
3. Ensure the type you created in “Creating the Object Type” on page 75 appears in the **Selection** list.
4. In the Condition field, define the domain condition for your application. For example:

1 domain='Acme Hydro'
5. Click **Save**.
6. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Control Procedure Registration Form** context.

### 3.3.7.9 Extending the Configuration Matrix

The configuration matrix specifies the settings for your controlled procedure registration form context that are not automatically shared or inherited.

1. From the toolbar, click **Matrix**.
2. Contexts are displayed vertically across the top of the matrix. Locate the context you created in “[Creating the Context](#)” on page 77.
3. For this context, make the following selections:
  - **Property Page:** Select the Property Page you created in “[Configuring the Property Page](#)” on page 76.
  - **Inheritance:** Select the Inheritance definition you created in “[Configuring Inheritance](#)” on page 75.
  - **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 73.
  - **Template list:** Select **No Content Required**
  - **Lifecycle:** Select the Lifecycle you created in “[Creating the Lifecycle](#)” on page 76.
4. Click **Save**.

## 3.4 Enabling Administrators to Create Content Templates

The following figure illustrates the process for enabling administrators to create content templates:



This procedure uses the base content template type: **AO Content Template**, which is described in “[Controlled Procedure Content Templates](#)” on page 46.

### 3.4.1 Configuring the Default Values Template

Define default values for the controlled procedure content templates created for your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Procedure Content Template Defaults**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Default Values Template.
3. Configure the following properties and save your changes:
  - **domain**: your domain name, for example, Acme Hydro.
  - **group\_name** the group name prefix that is common to all group names. This prefix is used for selecting default users or groups for different roles of access, for example, acme\_hydro\_proc.
  - **log\_entry**: The group name prefix that is common to all group names, for example, acme\_hydro\_proc. This value helps to retain the proper group\_name if dmadmin creates an instance template and forces group\_name to docu.

### 3.4.2 Configuring the Property Page

1. In client configuration, select **Go to > Property page** and select **AO Procedure Content Template Page**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Property Page.
3. Supply the following values and save your changes:
  - **Document type**: ao\_content\_template
  - **Structure > Document Template Information > applicable\_artifacts > Dictionary**: select the dictionary you created in “[Creating the Controlled Procedure Type Dictionary](#)” on page 63.

### 3.4.3 Creating the Creation Profile

The **AO Admin Artifacts** creation profile provided with enables members of the **theao\_admin** group to create procedure content templates. The Procedure Content Template artifact is defined in the **AO Admin Artifacts** dictionary. The following list illustrates the **AO Admin Artifacts** settings.

- **Object type**: ao\_content\_template.
- **Property Pages**: AO Procedure Content Template Page
- **Version**: 0.1
- **Default values template**: AO Procedure Registration Default

- **Lifecycle:** AO Content Lifecycle
- **O2 Config:** Empty because properties are not mapped to content template documents
- **Inheritance:** Empty
- **Workflow:** Empty. The **AO Content Template Review** Workflow is configured for the **AO Content Template** context in the client configuration matrix.

For each of these components you can use either the pre-defined component or a custom component configured for your requirements.

1. In client configuration, click **Creation > Creation profile** and select **AO Admin Artifacts**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Creation Profile.
3. Supply the following values:
  - **Label en:** Type a label name in the box (for example, Hydro Admin Artifacts).
  - **Users group:** Select the users group that can create content templates. For example, `acme_hydro_admins`.
  - **Dictionary:** In the table at the bottom of the page, ensure the Dictionary field specifies the admin artifacts dictionary you created in “[Creating the Admin Artifacts Dictionary](#)” on page 61.
4. Create a new row and select the following values in their respective columns:
  - In the first column, select the procedure template name you defined in “[Creating the Admin Artifacts Dictionary](#)” on page 61.
  - **Type** column: Select `ao_content_template`. This is the base type for controlled procedure content templates. If you created your own custom type, select the custom type instead.
  - **O2 config** column: Leave this column blank.
  - **Property pages** column: Select the Property Page you created in “[Configuring the Property Page](#)” on page 79.
  - **Version** column: `0.1`
  - **Inheritance** column: Leave this column blank.
  - **Default Values Template** column: Select the template you created in “[Configuring the Default Values Template](#)” on page 79.
  - **Lifecycle** column: Select **AO Content Template Lifecycle**. This is the base lifecycle definition for controlled procedure registration forms. If you created your own lifecycle definition, select the custom lifecycle definition instead.
  - **Workflow** column: Leave this column blank.

5. Click **Save**.

### 3.4.4 Adapting the Security Model

1. In client configuration, select **Go to > Security** and select **AO Content Template Security**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Security definition.
3. Update the table with following values. Remove any rows that don't appear below.

<b>Row</b>	<b>Conditions</b>	<b>Permissions</b>	<b>Action</b>
dm_world	Default	1–None	
dm_owner	Default	7–Delete	Select <b>Change State</b> , <b>Change Owner</b> , and <b>Change Permit</b> .
\$value(subject)	a_status = Effective	3–Read	
Default	1–None		
\$value(subject)_ad mins	Default	7–Delete	Select <b>Change State</b> , <b>Change Owner</b> , and <b>Change Permit</b> .
authors	a_status = Draft	6–Write	Select <b>Change State</b> .
a_status = Effective	5–Version	Select <b>Change State</b> .	
a_status = Inactive	5–Version	Select <b>Change State</b> .	
a_status = Superceded	3–Read		
a_status = Reviewed	5–Version	Select <b>Change State</b> .	
Default	1–None		
reviewers	a_status = Draft	4–Relate	
a_status = Effective	3–Read		
a_status = Reviewed	4–Relate		
Default	1–None		

4. Click **Save**.

### 3.4.5 Configuring Auto-linking

1. In client configuration, select **Go to > Auto link** and select **AO Content Template Auto Link**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Auto link definition.
3. For all folders in the Path section, select the security model you created in “[Adapting the Security Model](#)” on page 81.
4. Click **Save**.

### 3.4.6 Creating a Context

A single context defines all the settings required for managing a content template. OpenText Documentum CM for Engineering defines the **AO Content Template** context for any content of type **ao\_content\_template**. The defined settings the **AO Content Template** context are:

- **Property Page:** AO Content Template Properties
- **Security:** AO Content Template Security
- **Auto Link:** AO Content Template Auto Link
- **Template List:** No Content Required
- **Lifecycle:** AO Content Template Lifecycle
- **Workflow:** AO Content Template Review

The Acme Hydro example application demonstrates extending the OpenText Documentum CM for Engineering context by defining this context with the following condition `domain='Acme Hydro' and object type='ao_content_template'`. This context is defined before **AO Content Template** so all changed configurations take precedence over the base configuration provided above by OpenText Documentum CM for Engineering. A new application follows the same pattern of adding a context before **AO Content Template** with the object\_type of **ao\_content\_template** (unless you created your own custom object type. The domain setting should reflect the domain value that groups the configurations of the new application. To create the context:

1. In client configuration, select **Go to > Context** and select **AO Content Template**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Context.
3. Ensure **ao\_content\_template** appears in the **Selection** list.
4. In the Condition field, define the domain condition for your application. For example:

```
1 domain='Acme Hydro'
```

5. Click **Save**.
6. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Content Template** context.

### 3.4.7 Extending the Configuration Profile

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix**.
2. Contexts are displayed vertically across the top of the matrix. Locate the context you created in “[Creating a Context](#)” on page 82.
3. Select the following configurations for your context:
  - **Property Page:** Select the Property Page you created in “[Configuring the Property Page](#)” on page 79 as the Property Page for this context (double-click for a check mark to appear in the context's column).
  - **Auto Link:** Select the Auto Link configuration you created in “[Configuring Auto-linking](#)” on page 82.
  - **Workflow:** If a different review workflow process is defined, select that workflow.
  - **Template:** Optionally, select No Content Required.
4. Click **Save**.

After following the configuration steps in this section, your application supports a defined group of users creating content templates configured for the defined types of artifacts. This provides:

- A process for the content template to be reviewed prior to being made effective.
- A lifecycle for updating the properties and state of the content template as it is created, sent for review, reviewed, made effective and then made inactive.
- Proper access to the content template in each state.
- A dialog displaying the proper values for the properties for editing or review.
- The default location where all content templates are saved in the repository.

## 3.5 Enabling Authors to Create Controlled Procedure Documents

The following figure illustrates the process for enabling authors to create controlled procedures:



If your application requires additional properties not described below, see [“Adapting OpenText Documentum CM for Engineering Configurations”](#) on page 93.

### 3.5.1 Configuring Default Value Template for Controlled Procedure Documents

Define default values for the controlled procedure document created for your application. Controlled procedure documents use four levels of approval. For this reason you must create a Default Values template for all four approval levels. Complete the following procedure for all four levels of controlled procedures:

1. In client configuration, click **Creation > Default values template** and select one of the four controlled procedure templates from the Values templates list:
  - AO Level 1 Controlled Procedure
  - AO Level 2 Controlled Procedure
  - AO Level 3 Controlled Procedure
  - AO Level 4 Controlled Procedure
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Default Values Template.
3. Configure the following properties and save your changes:
  - **ao\_can\_be\_in\_transmittal: true**  
Ensures that this controlled procedure document can be included in transmittals.
    - **ao\_can\_be\_in\_wo: true**  
Ensures this controlled procedure document can be included in a work order.
  - **ao\_guidance\_level**: Type 1 for level 1 documents, 2 for level 2 documents, 3 for level three documents, and 4 for level 4 documents.
  - **ao\_review\_period\_mos**: 0
  - **ao\_review\_period\_yrs**: 1

- **authors:** ao\_doc\_authors
  - **auditors:** ao\_doc\_auditors
  - **category:** 1-4 aligned to the AO Category [1-4] Default Values
  - **ao\_asset\_family\_s:** Default asset family, for example, Power Exploration
  - **ao\_asset\_name\_s:** Default asset, for example, Mars
  - **domain:** Your domain name, for example, Acme Hydro
  - **group\_name** the group name prefix that is common to all group names. This prefix is used for selecting default users or groups for different roles of access, for example, acme\_hydro\_proc.
  - **object\_name:** Cat [1-4] Document
4. Repeat these steps for each level of controlled procedure document.

### 3.5.2 Configuring the Property Page

OpenText Documentum CM for Engineering provides a multi-tabbed property page for Controlled Procedure Documents. Any alteration or addition to the provided property pages must be implemented as a new property page. The table in this procedure identifies some settings that many need updating for your controlled procedure document properties.

1. In client configuration, select **Go to > Property page** and select **AO Controlled Procedure Property Page**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Property Page.
3. If you created a custom document type in “[Creating the Object Type](#)” [on page 93](#), select that type in the **Document type** list box. If you did not create a custom document type, use **ao\_controlled\_procedure**.
4. Expand the Properties folder and then expand the unlabeled folder.
5. Update the properties as described in the following table and modify or remove any properties requiring update:

Tab	Fieldset	Settings
Settings	ao_stakeholders	Stakeholders lists the document stakeholders. This list is not tied to a dictionary selection list.
ao_timescale	Target date is a date field with no validation the date is on or after today.	

Tab	Fieldset	Settings
ao_distribution_version	Distribution Version is tied to the <b>Distribution Version</b> dictionary providing two values: Internal and External.	
ao_ownership	Ownership is a free text entry of the owner of the controlled procedure.	
Review Period	Months relates the <b>Review Period Months</b> dictionary to <b>ao_review_period_mos</b> providing the values '0' through '11'.  Years relates the <b>Review Period Years</b> dictionary for <b>ao_review_period_yrs</b> providing the values '0' to '3'.	
Guidance Level	Select your taxonomy for the <b>ao_guidance_level</b> and <b>ao_parent_guidance_level</b> properties.	
Scope	Organization Scope	Configures the organizational scope values to the four levels of the Acme Utility Organization taxonomy for the following properties: <ul style="list-style-type: none"><li>• <b>ao_asset_corporation</b></li><li>• <b>ao_asset_organization</b></li><li>• <b>ao_asset_org_function_area</b></li><li>• <b>ao_asset_org_subfunction</b></li></ul>

Tab	Fieldset	Settings
Asset Scope	<p>Configures the asset classification corresponding to the document:</p> <ul style="list-style-type: none"> <li>• <code>ao_asset_family_s</code></li> <li>• <code>ao_asset_name_s</code></li> <li>• <code>ao_asset_facility</code></li> <li>• <code>ao_asset_area</code></li> <li>• <code>ao_asset_system</code></li> <li>• <code>ao_asset_subsystem</code></li> </ul> <p>The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.</p>	
Equipment Scope	<p>Family, function, type and equipment numbers for the controlled procedure. The AO_MajorFunction_Function_Type taxonomy reflects the NORSOK Coding standard for:</p> <ul style="list-style-type: none"> <li>• <code>ao_tag_major_function</code></li> <li>• <code>ao_tag_function</code></li> <li>• <code>ao_tag_type</code></li> </ul> <p><code>ao_asset_equipment_number</code> should correspond to a query or list of equipment.</p>	
Region Scope	<p>Displays list box of value from your geographic regions dictionary for the <code>ao_procedure_region</code>.</p>	
Business Process Scope	<p>Configures the business process values to the four levels of the Business Process taxonomy for the following properties:</p> <ul style="list-style-type: none"> <li>• <code>ao_doc_business_processes_0</code></li> <li>• <code>ao_doc_business_processes_1</code></li> <li>• <code>ao_doc_business_processes_2</code></li> <li>• <code>ao_doc_business_processes_3</code></li> </ul>	

Tab	Fieldset	Settings
Access   <b>Note:</b> This is not displayed in the Edit properties page.	Above the Divider	Displays the security category, review date, status (reflecting the lifecycle state), approved date, levels of approval, and effective date. The review, approval and effective dates only display on edit.
Coordinators	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_coordinators	
Authors	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_authors	
Reviewers	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_reviewers	
Level One Approvers	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l1_approvers	
Level Two Approvers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l2_approvers displayed when the Levels of Approval is greater than one.	
Level Three Approvers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l3_approvers displayed when the Levels of Approval is greater than two.	

Tab	Fieldset	Settings
Level Four Approvers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_l4_approvers displayed when the Levels of Approval is greater than three.	
Access	Readers	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_readers
TBR Distribution List	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_recipients	
Access	Auditors	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_auditors
Document Info	N/A	Displays standard document metadata upon edit. For example: object ID, object type, version label, owner name, content type, creator and creation date, modifier and last modified date, checked out by and checkout date, and content size.
Legacy Data   <b>Note:</b> Shown only in AO Advanced Controlled Procedure Property.	Legacy	Provides a set of legacy metadata values reflecting prior values in another system.

6. Click **Save**.

### 3.5.3 Creating the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document mostly uses pre-defined components, customizing only those components that most customers will need to customize.

1. In client configuration, click **Creation > Creation profile** and select **AO Controlled Procedure Artifacts**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Creation Matrix.
3. Supply the following values:
  - **Users group:** Select the authors group that can create controlled procedure documents. For example, `acme_hydro_proc_doc_authors`.
  - **Dictionary:** Ensure the Dictionary field specifies the artifacts dictionary you configured in [“Creating the Controlled Procedure Type Dictionary” on page 63](#).
4. Ensure the values in the first column of the table reflects the list of documents your authors can create. Add or subtract from the list as necessary.
5. For each document type, supply the following values:
  - **Type column:** Select `ao_control_procedure`. This is the base type for controlled procedure documents. If you created your own custom type, select the custom type instead.
  - **O2 config column:** `O2_Asset_Template`.
  - **Property pages column:** Select the Property Page you created in [“Configuring the Property Page” on page 85](#).
  - **Version column:** `0.1`
  - **Inheritance column:** Select **AO Control Procedure Inheritance**. This is the base inheritance definition for controlled procedure registration forms. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template column:** Select the correct template for specified document. The template should match the level of the controlled procedure in the hierarchy. We used the following values when configuring the Acme Hydro sample application:
    - **Bulletin:** Acme Hydro Level 4 Controlled Procedure
    - **Contingency Plan:** Acme Hydro Level 4 Controlled Procedure

- **Objective:** Acme Hydro Level 3 Controlled Procedure
  - **Plan:** Acme Hydro Level 4 Controlled Procedure
  - **Policy:** Acme Hydro Level 1 Controlled Procedure
  - **Procedure:** Acme Hydro Level 3 Controlled Procedure
  - **Standard:** Acme Hydro Level 2 Controlled Procedure
  - **Strategy:** Acme Hydro Level 2 Controlled Procedure
  - **Work Instruction:** Acme Hydro Level 4 Controlled Procedure
- **Lifecycle** column: Select **AO Controlled Procedure Lifecycle**. This is the base lifecycle definition for controlled procedure documents. If you created your own lifecycle definition, select the custom lifecycle definition instead.
  - **Workflow** column: Select **AO Controlled Procedure Approval Workflow**. This is the base workflow definition for controlled procedure documents. If you created your own workflow, select your custom workflow instead.
6. Click **Save**.

### 3.5.4 Configuring Auto-linking

1. In client configuration, select **Go to > Auto link** and select **AO Procedure Auto Link**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Auto link definition.
3. In the Path section, apply the Acme Hydro Folder Security Model to all folders in the path.
4. Click the box that contains:

```
"document_type"  
AO Controlled Procedure Type (en)
```

In the Path toolbar, click the Dictionaries list and select the type dictionary you created in “[Creating the Controlled Procedure Type Dictionary](#)” on page 63.

5. Click **Save**.

### 3.5.5 Configuring the Template List

1. In client configuration, select **Go to > Template list** and select **AO Document Type base Template**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Template.
3. Define the following settings and save your changes:
  - **Administration group:** Select the group of administrators who can create controlled procedure content templates and have access to controlled procedures across their lifecycle states. For example, acme\_hydro\_admins.
  - **Qualification:** Supply a query that enables OpenText Documentum CM for Engineering to dynamically show the applicable content templates for your controlled procedure documents. The following example describes the query for the AO application. Edit the query for your application.

```
ao_content_template where folder  
( '/AO Library/Templates/Content Templates',descend) and  
a_status='Effective' and any applicable_artifacts =  
'$value(document_type)' and domain='$value(domain)'
```

### 3.5.6 Creating a Context

By creating this context, you are inheriting the following settings from the base AO Controlled Procedure context:

- AO Control Procedure Inheritance
  - AO Controlled Procedure Security
  - AO Controlled Procedure Lifecycle
  - Auditing of AO Controlled Procedures
  - AO Controlled Procedure View
  - O2\_Control\_Procedure\_Template Transfer configuration
1. In client configuration, select **Go to > Context** and select **AO Control Procedure**.
  2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Context.
  3. Ensure **ao\_controlled\_procedure** appears in the **Selection** list.
  4. In the Condition field, define the domain condition for your application. For example:  

```
r_object_type='ao_control_procedure' and domain='<Your application domain>'
```
  5. Click **Save**.
  6. Click **Matrix** to view your context in the OpenText Documentum CM client matrix. OpenText Documentum CM client processes contexts from left to right.

To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Control Procedure** context.

### 3.5.7 Extending the Configuration Matrix

The configuration matrix specifies settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating a Context](#)” on page 92.
2. For this context, make the following selections:
  - **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 91.
  - **Property Page:** Select the Property Page you created in “[Configuring the Property Page](#)” on page 85.
  - **Template list:** Select the Template you created in “[Configuring the Template List](#)” on page 92.
3. Click **Save**.

### 3.5.8 Adapting OpenText Documentum CM for Engineering Configurations

If your controlled procedure documents require additional properties that are not provided in **ao\_control\_procedure**, you must create a custom document type, and then configure the client configuration components to make use of the new properties.

#### 3.5.8.1 Creating the Object Type

Perform the following steps to extend the **ao\_controlled\_procedure** document object type with the additional properties required for your application.

1. In Documentum Composer, create a controlled procedure document type.
2. Select **ao\_controlled\_procedure** as the **Supertype**.  
This enables your custom type to inherit the properties of **ao\_controlled\_procedure**.
3. Ensure you name your type according to the following naming convention:  
`prefix_controlled_procedure`  
where *prefix* is the prefix you've chosen for your custom application. For example: acme\_hydro\_controlled\_procedure.
4. Add custom properties to the type.
5. Package and install the Documentum project.

If any of the added properties are specified by registration forms for this type of document, also create a further sub-type without any additional properties. The recommended naming convention is appending '\_info' to the name of the document object type (object type names are limited to 27 characters). See ["Creating the Object Type" on page 75](#) for more information.

The *OpenText Documentum Composer User Guide* contains more information on creating, configuring, packaging and deploying new types.

### 3.5.8.2 Configuring the Default Values Template

If your new controlled procedure properties need default values, create a new default value template using the steps shown in ["Configuring Default Value Template for Controlled Procedure Documents" on page 84](#), then add your new default values. Update the creation matrix so these defaults are applied for new content.

### 3.5.8.3 Configuring Inheritance

Inheritance enables you to define how your properties are inherited. To keep all the inheritance rules automatically configured for `ao_controlled_procedure`, base the new inheritance definition on the base inheritance definition. Add new properties to the inheritance definition as needed.

1. In client configuration, select **Go to > Inheritance** and select **AO Control Procedure Inheritance**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Inheritance definition.
3. Select your implementation of the solution from the **Applications** list.
4. Define any additional inherited values required by your application.
5. Click **Save**.

For more information about inheritance , see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

### 3.5.8.4 Configuring the Property Page

Create a new Property Page according to the steps in ["Configuring the Property Page" on page 85](#).

### 3.5.8.5 Configuring Auto-linking

See “[Configuring Auto-linking](#)” on page 91 for instructions. Make changes to the path as needed for your application.

### 3.5.8.6 Creating a Template

Create a new template. See “[Configuring the Template List](#)” on page 92 for instructions. Make additional changes as needed for your application.

### 3.5.8.7 Adapting the Creation Matrix

The **Creation Matrix** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document mostly uses pre-defined components, customizing only those components that most customers will need to customize.

1. In client configuration, click **Creation > Creation matrix** and select **AO Control Procedure Artifacts**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Creation Matrix.
3. Update the label for the matrix (for example, Hydro Controlled Procedure Artifacts).
4. Select the user group from the **Users group** list box (for example, acme\_hydro\_procedure\_doc\_authors).
5. Update the properties table by removing the default documents and then follow these steps to add your documents:

- a. Add a row to the table.
- b. Select the document from the first column (For example, Bulletin).

The document names that appear in the list box are the documents in the document dictionary for your application. Review the Hydro Artifact Names dictionary in the Acme Hydro sample configuration for examples.

- c. In the Type column, select your controlled procedure type (for example, acme\_hydro\_control\_procedure).
- d. In the O2 config column, select 02\_Asset\_Template.
- e. In the Property pages column, select the property page configured in “[Configuring the Property Page](#)” on page 94.
- f. In the Inheritance column, select the inheritance type you created in “[Configuring Inheritance](#)” on page 94.
- g. In the Default values template column, select the template created in “[Configuring the Default Values Template](#)” on page 94.

- h. In the Lifecycle column, select the appropriate controlled procedure lifecycle.
6. Click **Save**.

### 3.5.8.8 Creating a Lifecycle

If any of your new properties need to be set or changed as a registration form goes through a lifecycle, you must create a new lifecycle. Use **Create from** to create a new lifecycle based on the base controlled procedure lifecycle: **AO Control Procedure Lifecycle**. Add your new actions in the **Action Type** and **Action Parameter** table.

### 3.5.8.9 Creating a Context

Create a new context for your custom type.

1. In client configuration, select **Go to > Context** and select **AO Control Procedure**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Context.
3. Ensure the type you created in “[Creating the Object Type](#)” on page 93 appears in the **Selection** list.
4. In the Condition field, define the domain condition for your application. For example:  

```
domain='Acme Hydro'
```
5. Click **Save**.
6. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Control Procedure** context.

### 3.5.8.10 Extending the Configuration Matrix

The configuration matrix specifies settings for your controlled procedure document context that are not automatically shared or inherited.

1. From the toolbar, click **Matrix**.
2. Contexts are displayed vertically across the top of the matrix. Locate the context you created in “[Creating a Context](#)” on page 96.
3. For this context, make the following selections:
  - **Property Page:** Select the Property Page you created in “[Configuring the Property Page](#)” on page 94.
  - **Inheritance:** Select the Inheritance definition you created in “[Configuring Inheritance](#)” on page 94.
  - **Security:** Select **AO Controlled Procedure Security**.

- **Auto Link:** Select the Auto Link definition you created in “Configuring Auto-linking” on page 95.
  - **Template list:** Select the template you created in “Creating a Template” on page 95.
  - **Lifecycle:** Select AO Controlled Procedure Lifecycle.
4. Click **Save**.



# Chapter 4

## Asset Documents

OpenText Documentum CM for Engineering provides configurations for registration forms, content templates, and asset documents. When you implement asset document functionality, business requirements determine if you adapt the configurations as-is or if you adapt the configurations and then update them for your implementation. This chapter contains the following topics:

### 4.1 Configuration Summaries

The following topics describe default asset document configurations in OpenText Documentum CM for Engineering:

#### 4.1.1 Controlled Asset Documents

OpenText Documentum CM for Engineering provides three levels of controlled categories to secure asset documents as they progress through their lifecycles. OpenText Documentum CM for Engineering assigns categories according to document type. The categories in combination with user roles and lifecycle states control the level of access to asset documents. OpenText Documentum CM for Engineering provides a fourth category that is not secure.

The OpenText Documentum CM for Engineering **AO Artifacts** creation matrix defines the configurations that enable the authors group to create the following controlled documents:

- **CAT1:** Category 1 controlled document
- **CAT2:** Category 2 controlled document
- **CAT3:** Category 3 controlled document
- **CAT4:** Category 4 controlled document

Each document type is preconfigured with the configurations described in the following table:

Configuration	Description
Type	Specifies the object type of each created document. OpenText Documentum CM for Engineering documents are instances of the <b>ao_document</b> object type.
O2 config	Identifies the configuration of metadata saved as properties in the Microsoft Office document. All asset documents use the <b>O2_Asset_Template</b> .

Configuration	Description
<b>Property page</b>	Defines the application pages that authors use to specify and select metadata values when creating documents. All documents use the <b>AO Property Page</b> on create, <b>AO Edit Property Page</b> to Page to edit properties, and <b>AO Advanced Property</b> from the right-click lifecycle menu item.
<b>Version</b>	Specifies the initial version of the document. Documents start at version 0.1 until they become effective and then the version changes to 1.0.
<b>Inheritance</b>	Defines the metadata that documents inherit when authors create documents. Registration forms provide the default metadata. OpenText Documentum CM for Engineering uses the <b>AO Asset Inheritance</b> configuration to define inheritance behavior.
<b>Default values template</b>	Specifies the template that provides default values for documents that authors create.
<b>Lifecycle</b>	Identifies the sequence of lifecycle states and action states that OpenText Documentum CM for Engineering applies to category 1–4 documents.  You can associate controlled documents in reviewed, effective, and release pending states with transmittals.

### 4.1.2 Asset Document Inheritance

OpenText Documentum CM for Engineering generates instances of documents from the `ao_document` object type. When you configure asset documents for your environment, you create an object type that inherits the properties of `ao_document`. If necessary, you can integrate with metadata in other systems by adding custom properties. You can also add custom properties to extend OpenText Documentum CM for Engineering configurations.

The following table describes the inherited `ao_document` properties. If you do not want a property to appear in the application, configure the property as a hidden property when you create the object type. OpenText Documentum CM for Engineering configures the classification properties as faceted indexes to automatically group faceted simple search results. Several inherited properties exist as single and repeating properties supporting multiple and single classifications of an asset document. Single values are recommended for better query response and simpler user interfaces.

<b>Property</b>	<b>Description</b>
ao_asset_corporation	Top-level organizational classification of asset documents.
ao_asset_equipment_label	Label that describes the value of the ao_asset_equipment_number property. You can configure the property as mandatory depending on the document type.
ao_asset_equipment_number	Number value for an equipment asset.
ao_asset_family, ao_asset_family_s	Single (_s) and repeating top-level classification of an asset managed in OpenText Documentum CM for Engineering.
ao_asset_name, ao_asset_name_s	Single (_s) and repeating name of the asset. Classified by asset family, asset type, and asset sub-type.
ao_asset_number, ao_asset_number_s	Single (_s) and repeating asset number that corresponds to ao_asset_name. Classified by ao_asset_family and ao_asset_subtype.
ao_asset_org_functional_area	Third-level corporate classification to first-level ao_asset_corporation and second-level ao_asset_organization classifications.
ao_asset_org_subfunction	Fourth-level classification to third-level ao_asset_org_functional_area classification.
ao_asset_organization	Second-level organizational classification of ao_asset_corporation.
ao_asset_subtype	Third-level classification of ao_asset_organization.
ao_asset_type	Second-level classification of ao_asset_family.
ao_discipline, ao_discipline_s	Repeating discipline or disciplines applicable to a document type. Extended to support a single document discipline (ao_discipline_s).
ao_asset_facility	Facility corresponding to asset document.
ao_asset_area	Facility area corresponding to asset document.
ao_asset_system	System corresponding to asset document.
ao_asset_subsystem	Sub-system corresponding to asset document.
ao_drawing_number	Unique drawing document.
ao_sheet_number	Sheet number of drawing.
ao_can_be_in_transmittal	Can be added to a transmittal document (True).

<b>Property</b>	<b>Description</b>
ao_can_be_in_wo	Can be included as a work order document (True).
ao_doc_business_process_0, ao_doc_business_process_0_s	Single (_s) and repeating associated business process of level 0.
ao_doc_business_process_1, ao_doc_business_process_1_s	Single (_s) and repeating associated business process of level 1.
ao_doc_business_process_2, ao_doc_business_process_2_s	Single (_s) and repeating associated business process of level 2.
ao_doc_business_process_3, ao_doc_business_process_3_s	Single (_s) and repeating associated business process of level 3.
ao_doc_program_0, ao_doc_program_0_s	Single (_s) and repeating level 0 classification of a program or project initiative.
ao_doc_program_1, ao_doc_program_1_s	Single (_s) and repeating level 1 classification of a program or project initiative.
ao_doc_program_2, ao_doc_program_2_s	Single (_s) and repeating level 2 classification of a program or project initiative.
ao_doc_subtype_name	Common name of document sub-type associated with level 2. Enables nested facets of asset documents by type.
ao_doc_type_business	Common business name for a document type.
ao_doc_type_category	Enables nested facets of asset documents by type. Level 0 facet of the document type.
ao_doc_type_classification	Unique concatenation of classifications of the document type.
ao_doc_type_name	Common name of document type. Level 1 facet of the document document type (doc_cls_type). Level 0 is the doc_type_category.
ao_is_polygon	Indicates multi-point location of an asset.
ao_job_number	Indicates the job number for joining with another asset management system.
ao_license_category, ao_license_name, ao_license_name_s	Single (_s) and repeating name of the regulatory license for the asset.
ao_license_number, ao_license_number_s	Single (_s) and repeating number of the regulatory license for the asset.
ao_license_type, ao_license_type_s	Type of regulatory license for the asset (for example, Federal Energy Regulatory Commission (FERC)).
ao_location_latitude, ao_location_latitude_r	Single and repeating (_r) latitude of an asset.

Property	Description
ao_location_longitude, ao_location_longitude_r	Single and repeating (_r) longitude of an asset.
ao_review_period_mos	Default review period in months.
ao_review_period_yrs	Default review period in years.
approvers	Document approvers.
auditors	Document auditors.
authors	Document authors.
doc_coordinators	Document coordinators.
qo_approvers	Document second level approvers.
readers	Document readers.
reviewers	Document reviewers.
tbr_distribution_list	To-be-read distribution list members.

### 4.1.3 Category 1–4 Shared Configurations

The base **AO Documents** context in OpenText Documentum CM for Engineering defines configurations that are shared between category 1–3 documents. The following table describes the base configurations for the context. Navigate to the configurations in the client configuration matrix for the **Asset Operations Solution** application to view configuration details or use client configuration to generate a detailed specification for the application.

Configuration	Description
<b>Property page</b>	Defines the layout of asset documents for categories 1–4 and controls the values that authors can enter and select when creating asset documents for categories 1–4.  The context is pre-configured to use the <b>AO Property Page</b> configuration on create; the <b>AO Edit Property Page</b> on edit, and the <b>AO Advanced Property Page</b> by using right-click lifecycle menu action.
<b>Inheritance</b>	Specifies the properties that asset documents inherit when authors create documents for categories 1–4.  The context is preconfigured to use the <b>AO Asset Inheritance</b> configuration.

Configuration	Description
<b>Security</b>	<p>Defines role-based access to category 1–4 asset documents. Access depends on the document state, lifecycle, and the user role.</p> <p>Category 4 documents use AO Cat 4 Controlled Doc Security.</p> <p>The context is preconfigured to use the <b>AO Cat 1-3 Controlled Doc Security</b> configuration.</p>
<b>Auto link</b>	<p>Specifies where OpenText Documentum CM for Engineering stores category 1–4 asset documents and defines the folder-level security for the folders that contain the documents. OpenText Documentum CM for Engineering stores the documents in the following locations:</p> <ul style="list-style-type: none"> <li>• &lt;domain&gt;/Asset Name/&lt;document type&gt;</li> <li>• &lt;domain&gt;/Discipline/&lt;discipline&gt;/Asset Name</li> </ul> <p>The context is preconfigured to use the <b>AO Document Auto Link</b> configuration.</p> <p>AO Document Auto Link applies to category 1–4 documents.</p>
<b>Template list</b>	<p>Defines the query that describes the available content templates to authors when they create category 1–4 asset documents. OpenText Documentum CM for Engineering uses the following query:</p> <pre>ao_content_template where folder( '/AO_Library/Templates/Content Templates',descend) and a_status='Effective' and any applicable_artifacts = '\$value(document_type)' and domain='\$value(domain)'</pre> <p>The context is preconfigured to use the <b>AO Document Type based Templates</b> configuration.</p> <p><b>AO Document Type based Templates</b> apply to category 1–4.</p>

Configuration	Description
<b>Menu D2</b>	Defines the menu options that appear in OpenText Documentum CM client for asset documents.  The context is preconfigured to use the <b>Asset Document Menu</b> configuration.  Asset Document menu applies to the default context and also applicable to category 4 documents.
<b>Transfer configuration</b>	Synchronizes the mapping between asset document properties and their corresponding properties in the Microsoft Word document.  The context is preconfigured to use the <b>O2_Asset_Template</b> configuration.

## 4.1.4 Lifecycles and Workflows

The following topics describe category 1–3 lifecycles and corresponding workflow processes:

### 4.1.4.1 Category 1–3 Lifecycles

The following table summarizes the relationships between document states and base controlled categories:

State	Control Category	Description
<i>Draft</i>	1, 2, 3	New documents and versions added and prepared by authors.
<i>For Review</i>	1, 2, 3	Documents that have been submitted for review by reviewers. OpenText Documentum CM for Engineering supports setting future review dates and sending a notification when the review date is reached.
<i>Reviewed</i>	1, 2, 3	Indicates the review phase is complete.  For Cat 1, 2 this state is added to support Core Collaboration for Engineering Workflow.

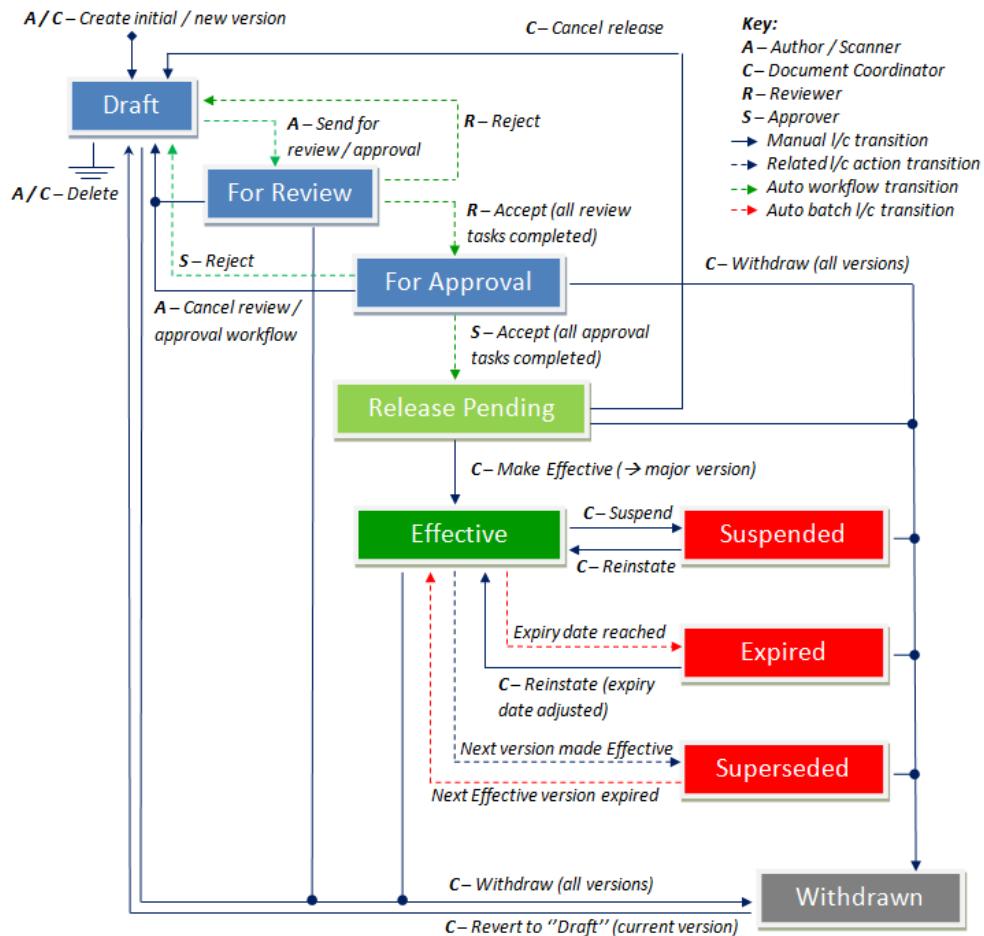
<b>State</b>	<b>Control Category</b>	<b>Description</b>
<i>For Approval</i>	1, 2	Documents submitted for sign-off by approvers.
<i>Release Pending</i>	1, 2	Documents that have been signed off by all designated approvers. Document coordinators make the document effective.
<i>Effective</i>	1, 2, 3	Documents that are approved for use and current. Indicated by a major version number. Readers can view the effective version of the documents.
<i>Suspended</i>	1, 2, 3	Indicates an effective document that was changed to suspended by a document coordinator. This state prevents the document from being used while a modified version is being prepared, reviewed, and approved. Suspended documents can be reinstated to effective if necessary, or changed to superseded when the next version or replacement document becomes effective. Alternatively, the entire document can be withdrawn.
<i>Superseded</i>	1, 2, 3	Indicates a previously effective version of a document that was replaced by a more recent version that was reviewed, approved, and made effective. Superseded versions are not accessible because they are out-of-date. The system can retain superseded versions as historical records.

<b>State</b>	<b>Control Category</b>	<b>Description</b>
<i>Expired</i>	1	Indicates a document that was previously effective but is now past its expiration date. Typically, expired documents are not used because they can be invalid. Before they expire, OpenText Documentum CM for Engineering sends a notification of the pending expiration and then automates the transition to expired on the expiration date.
<i>Withdrawn</i>	1, 2, 3	Indicates retired documents. All versions are withdrawn. Withdrawn documents cannot have versions, but they can be copied to create a document. Document coordinators can withdraw a document at any time, which affects all versions. Users are not allowed to create new versions of a withdrawn document. A withdrawn document can be reverted to a draft to enable its content to be reused or deleted. Retain withdrawn documents as historical records if the document was effective.
<i>Submitted</i>	1, 2, 3	Applicable only for Core Collaboration for Engineering workflow. Indicates the document is submitted to Core Collaboration for Engineering for review.
<i>Queued</i>	1, 2, 3	Applicable only for Core Collaboration for Engineering workflow. Indicates the document is in the waiting state for the next connector job to process and push to Core Collaboration for Engineering site.

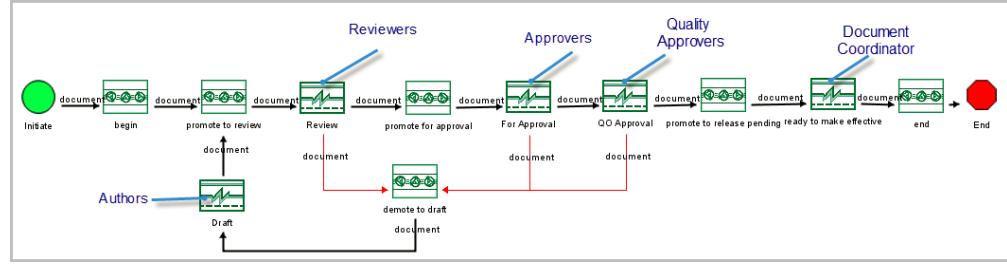
State	Control Category	Description
<i>Invalid</i>	1, 2, 3	Applicable only for Core Collaboration for Engineering workflow. Indicates the document has encountered an error with Core Collaboration for Engineering Connector. User with the required permission can resubmit the document to Core Collaboration for Engineering .

#### 4.1.4.2 Category 1 Lifecycle and Workflow

The following figure illustrates the lifecycle and state transitions for category 1 asset documents:

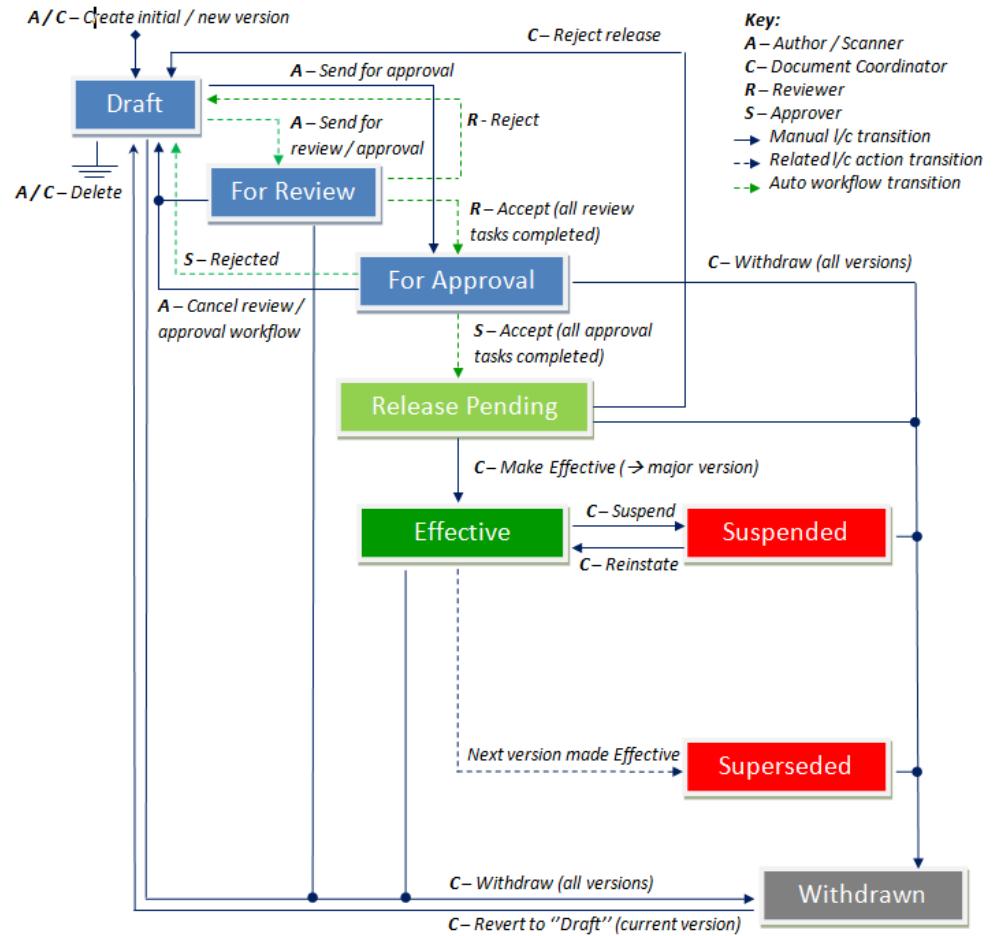


The following figure illustrates the workflow configured for the review and approval of category 1 asset documents:

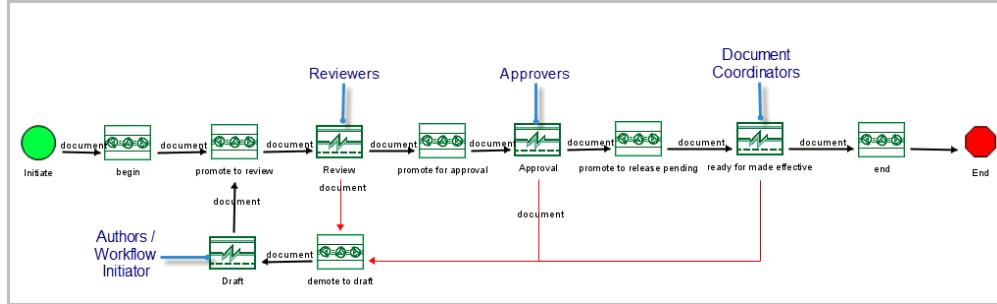


#### 4.1.4.3 Category 2 Lifecycle and Workflow

The following figure illustrates the lifecycle and state transitions for category 2 asset documents:

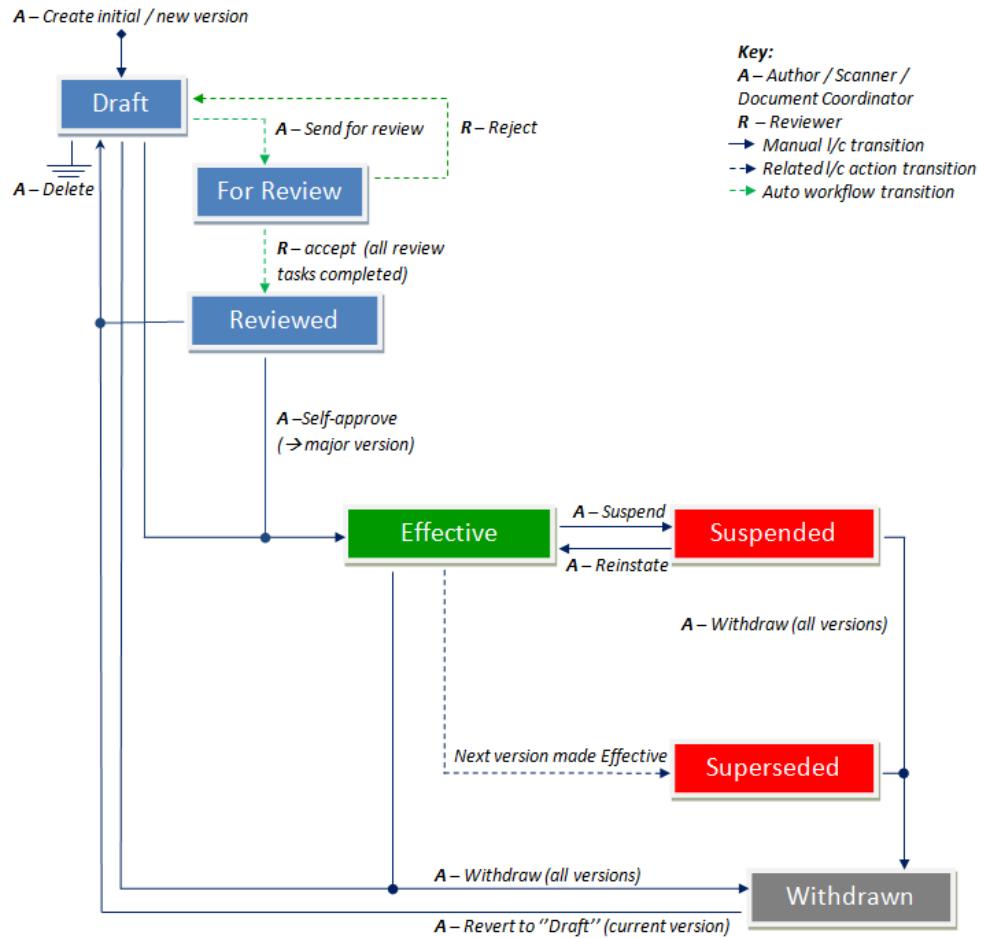


The following figure illustrates the workflow configured for the review and approval of category 2 asset documents:

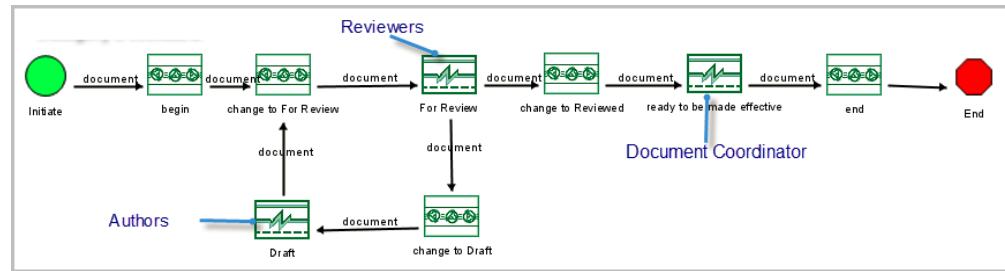


#### 4.1.4.4 Category 3 Lifecycle and Workflow

The following figure illustrates the lifecycle and state transitions for category 3 asset documents:



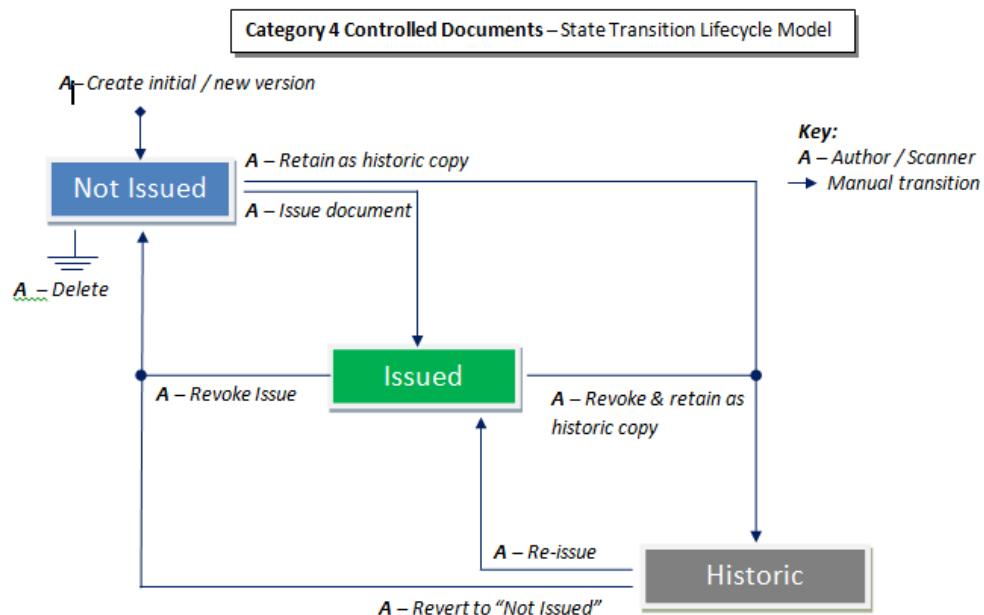
The following figure illustrates the workflow configured for the review and approval of category 3 asset documents:



#### 4.1.4.5 Category 4 Lifecycle

The following diagram illustrates the lifecycle states for category 4 asset documents:  
The three different states are:

- Not Issued
- Issued
- Historic



### 4.1.5 Category 1–4 Permissions

OpenText Documentum CM for Engineering uses a naming convention of **ao** with a role extension to control user access. For example, if Jane Smith is a member of **ao\_doc\_authors**, her name appears in the application where a document coordinator can select an author. When you extend permissions to an organization in your application, you define a group name default value and use it with the OpenText Documentum CM for Engineering role extension (for example, **acme\_hydro\_doc\_authors**).

The following tables summarize permissions by user role and document lifecycle state:

State	Authors (ao_doc_authors)	Document Coordinators (ao_doc_coordinato rs)	Reviewers (ao_doc_reviewers)
<i>Draft</i>	DELETE	WRITE	WRITE
<i>For Review</i> (Cat 1 and 2 only)	RELATE	RELATE	RELATE
<i>Reviewed</i>	VERSION	READ	READ
<i>For Approval</i> (Cat 1 and 2 only)	READ	READ	READ
<i>Release Pending</i> (Cat 1 and 2 only)	VERSION	READ	READ
<i>Effective</i>	VERSION	READ	READ
<i>Expired</i> (Cat 1 only)	VERSION	READ	READ
<i>Superseded</i>	VERSION	READ	READ
<i>Suspended</i>	VERSION	READ	READ
<i>Withdrawn</i>	READ	READ	READ
<i>Not Issued</i>	DELETE	NONE	NONE
<i>Issued</i>	VERSION	NONE	NONE
<i>Historic</i>	READ	NONE	NONE
<i>Queued</i>	RELATE	RELATE	NONE
<i>Submitted</i>	RELATE	RELATE	NONE
<i>Invalid</i>	READ	VERSION	READ

<b>State</b>	<b>Approvers (ao_doc_approvers) (Cat 1–2 only)</b>	<b>QO Approvers (ao_doc_qo_approvers) Cat 1 only)</b>	<b>Recipients (ao_doc_recipients) TBR List Cat 1 only</b>	<b>Readers (ao_doc_readers)</b>	<b>Auditors (ao_doc_auditors)</b>
<i>Draft</i>	NONE	NONE	NONE	NONE	NONE
<i>For Review</i> (Cat 1 and 2 only)	NONE	NONE	NONE	NONE	NONE
<i>Reviewed</i> (Cat 3 only)	NONE	NONE	NONE	NONE	NONE
<i>For Approval</i> (Cat 1 and 2 only)	READ	READ	NONE	NONE	NONE
<i>Release Pending</i> (Cat 1 and 2 only)	READ	READ	READ	NONE	READ
<i>Effective</i>	READ	READ	READ	READ	READ
<i>Expired</i> (Cat 1 only)	READ	READ	BROWSE	NONE	READ
<i>Superseded</i>	READ	READ	BROWSE	NONE	READ
<i>Suspended</i>	READ	READ	BROWSE	NONE	READ
<i>Withdrawn</i>	READ	READ	BROWSE	NONE	NONE
<i>Not Issued</i>	NONE	NONE	NONE	NONE	NONE
<i>Issued</i>	NONE	NONE	NONE	READ	NONE
<i>Historic</i>	NONE	NONE	NONE	BROWSE	NONE
<i>Queued</i>	NONE	NONE	NONE	NONE	NONE
<i>Submitted</i>	NONE	NONE	NONE	NONE	NONE
<i>Invalid</i>	READ	READ	READ	NONE	NONE

#### 4.1.6 Controlled Document Auditing

OpenText Documentum CM for Engineering supports auditing controlled asset documents to capture and record events related to workflow, creation, revision, destruction, view, update, relate, and lifecycle transition. You can audit events for each category of controlled documents. By default, OpenText Documentum CM for Engineering audits the properties listed in the following table:

Category	Properties
1	approvers authors doc_coordinators effective_date expiration_date object_name readers review_date reviewers
2	approvers authors doc_coordinators effective_date object_name readers review_date reviewers
3	authors effective_date object_name readers review_date reviewers

Category	Properties
4	authors object_name readers

### 4.1.7 Supplier Document Schedule Auditing

OpenText Documentum CM for Engineering supports auditing Supplier Document Schedule documents to capture and record events related to workflow, creation, revision, destruction, view, update, relate, and lifecycle transition. By default, OpenText Documentum CM for Engineering audits the following properties:

- *ao\_po\_number*
- *ao\_project\_number*
- *ao\_project\_title*
- *authors*
- *doc\_coordinators*

### 4.1.8 Asset Document Views

OpenText Documentum CM for Engineering uses Documentum C2 view configurations to define how the system renders documents to PDF. OpenText Documentum CM for Engineering defines view configurations for category 1–3 documents. OpenText Documentum CM for Engineering applies a watermark to category 1–3 documents to indicate the lifecycle state of the documents. Category 1 and 2 documents have audited reviews and approvals and require sign-off for each activity. OpenText Documentum CM for Engineering records a sign-off in signature page that is generated at the end of the process. The signature page records the user, time, sign-off date, and justification for the document. Category 4 documents do not have a view configuration.

### 4.1.9 Content Templates

Asset document content templates provide the source content for asset documents that authors create. Since content templates are not documents, OpenText Documentum CM for Engineering does not apply watermarks to PDF renditions of content templates.

The OpenText Documentum CM for Engineering **AO Admin Artifacts** creation matrix contains a **Content Template** artifact that enables administrators to create content templates for asset documents. The creation matrix is preconfigured with the following elements:

- Type
- Property page

- Version
- Default values template
- Lifecycle

The **AO Content Template Default Values** template provides default values for asset document content templates. The template is preconfigured to provide default values for the following properties:

- **domain**: Specifies the domain to which the content template belongs. OpenText Documentum CM for Engineering uses a value of **AO**. Each application in the environment has a unique domain to group the configurations in the domain.
- **group\_name**: Specifies the prefix that the system uses to define default users or groups for roles that work with asset document content templates. OpenText Documentum CM for Engineering uses a value of **ao**.

The OpenText Documentum CM for Engineering **AO Content Template** context groups the content template configurations in the client configuration matrix. The following table describes the configurations. Navigate to the configurations in the client configuration matrix for the **Asset Operations Solution** application to view configuration details or use client configuration to generate a detailed specification for the application.

Configuration	Description
<b>Property page</b>	Defines the properties that appear for content templates and their layout, the document object types to which the template applies, and the reviewers who can review the template before it is effective and available to authors.  The context is preconfigured to use the <b>AO Content Template Properties</b> configuration.
<b>Security</b>	Defines the permissions for authors, reviewers, readers, and administrators.  The context is preconfigured to use the <b>AO Content Template Security</b> configuration.
<b>Auto link</b>	Specifies where OpenText Documentum CM for Engineering stores content templates. OpenText Documentum CM for Engineering stores content templates in the following location:  <code>&lt;domain&gt; Library/Templates/Content Templates</code>  The context is preconfigured to use the <b>AO Content Template Auto Link</b> configuration.

Configuration	Description
<b>Template list</b>	The element is preconfigured to use <b>No Content Required</b> because content templates define their own content.
<b>Lifecycle</b>	<p>Defines the lifecycle of a content template.</p> <p>The following figure illustrates the relationship between system actions and content template lifecycle states:</p> <pre> graph TD     Draft -- "PROMOTE" --&gt; Effective     Effective -- "DEMOTE (CHECKIN)" --&gt; Draft     Effective -- "PROMOTE" --&gt; Inactive     Inactive -- "PROMOTE" --&gt; Effective     Effective -- "AUTO PROMOTE PRIOR VERSIONS" --&gt; Superseded     Draft -- "DEMOTE" --&gt; Superseded   </pre> <p>The context is preconfigured to use the <b>AO Content Template Lifecycle</b> configuration.</p>
<b>Workflow</b>	<p>Controls the flow of tasks for reviewing content templates and the users who can participate in the review. The element is preconfigured to use <b>AO Content Template Review</b>.</p> <p>The context is preconfigured to use the <b>AO Content Template Review</b> configuration.</p>
<b>Audit</b>	<p>Specifies the properties that the system uses to audit content template events.</p> <p>The context is preconfigured to use the <b>Auditing for Content Templates</b> configuration.</p>
<b>Transfer configuration</b>	<p>Defines the mapping between content template properties and their corresponding fields in the Microsoft Word document.</p> <p>The context is preconfigured to use the <b>O2_Asset_Template</b> configuration.</p>

### 4.1.10 Registration Forms

Registration forms apply pre-defined property metadata to asset documents that authors create. Registration forms do not have content and do not have versions. When an author creates or imports an asset document, the author selects the registration form from which the asset document inherits the metadata. If a manager changes a registration form, only asset documents created after the change show the modifications.

The OpenText Documentum CM for Engineering **AO Registry Artifacts** creation matrix contains an **AO Document Registration Form** profile that enables managers to create registration forms for asset documents. The profile is preconfigured with the following elements:

- Type
- Property page
- Version
- Inheritance
- Default values template
- Lifecycle

The **AO Document Registration Default Values** template provides default values for asset document registration forms. The template is pre-configured to provide default values for the following properties:

- **authors**: Identifies the group of users who can create asset documents from the registration forms. OpenText Documentum CM for Engineering uses a value of **ao\_doc\_authors**.
- **domain**: Specifies the domain to which the registration form belongs. OpenText Documentum CM for Engineering uses a value of **AO**.
- **form\_managers**: Identifies the group of users who can modify and promote registration forms and uses a value of **ao\_managers**.
- **form\_users**: Identifies the group of users who can create registration forms. OpenText Documentum CM for Engineering uses a value of **ao** as the parent group for all access groups.
- **group\_name**: Specifies the prefix that the system uses to define default users or groups for roles that work with registration forms. OpenText Documentum CM for Engineering uses a value of **ao**.
- **ao\_can\_be\_in\_transmittal**: Specifies if the document can be included in a transmittal. By default, OpenText Documentum CM for Engineering does not include asset document registration forms in transmittals.
  - **ao\_can\_be\_in\_wo**: Specifies if the document can be included in a work order. By default, OpenText Documentum CM for Engineering does not include asset document registration forms in work orders.

- **category:** 0
- **object\_name:** default document name, Document Registration Form.
- **readers:** The default consumer group of the registration form. OpenText Documentum CM for Engineering uses a value of ao to specify the parent group as consumers.

The **AO Registration Form** context groups the registration form configurations. The following table describes the configurations. Navigate to the configurations in the client configuration matrix for the **Asset Operations Solution** application to view configuration details or use client configuration to generate a detailed specification for the application.

Configuration	Description
<b>Property page</b>	<p>Defines the properties that managers can specify when creating asset document registration forms and the layout of the properties.</p> <p>The context is preconfigured to use the <b>AO Registration Form Property Page</b> configuration.</p>
<b>Security</b>	<p>Defines the permissions for form managers, form users, and administrators.</p> <p>The context is preconfigured to use the <b>AO Registration Form Security Model</b> configuration.</p>
<b>Auto link</b>	<p>Defines where the system saves registration forms after managers create them. By default, OpenText Documentum CM for Engineering saves registration forms to:</p> <pre>&lt;domain&gt; Library/Registration Forms/ &lt;document_type&gt;</pre> <p>The context is preconfigured to use the <b>AO Asset Registration Form Auto Link</b> configuration.</p>

Configuration	Description
<b>Lifecycle</b>	<p>Defines the lifecycle of a registration form. The following figure illustrates the relationship between system actions and the states:</p>  <pre> graph TD     Draft -- Promote --&gt; Effective     Draft -- Demote --&gt; Inactive     Effective -- Promote --&gt; Draft     Effective -- Promote --&gt; Inactive     Inactive -- Promote --&gt; Draft     Inactive -- Promote --&gt; Effective   </pre> <p>The context is preconfigured to use the <b>AO Registration Form Lifecycle</b> configuration.</p>

#### 4.1.11 Dictionaries and Taxonomies

OpenText Documentum CM for Engineering uses dictionaries to define the types of asset documents that users can create and the asset property values that users can select. OpenText Documentum CM for Engineering uses taxonomies to define tiered values of metadata that classify the asset documents.

The following table lists the dictionary and taxonomy mapping for classifying asset documents in OpenText Documentum CM for Engineering:

## 4.2 Creating an Object Type

OpenText Documentum CM for Engineering uses the base `ao_document` object type to generate instances of asset documents. If your application requires additional object type properties (for example, to integrate with other systems), you can create an object type that extends `ao_document` and add properties to the new object type.

1. In Documentum Composer, create a document type that uses `ao_document` as the super type.

The type inherits the properties of `ao_document`. To avoid object type conflicts, do not use the `ao` prefix when you name the new object type.

2. If necessary, add custom properties to the document type.
3. Create the registration form type as a sub-type of the parent document type.

When you create the registration form type, add `_info` to the name to indicate that it is associated with the parent document type.

4. Package and install the types in the repository.

[“Asset Document Inheritance” on page 100](#) provides more information on `ao_document` properties. For information about creating and installing types, see *OpenText Documentum Composer Online Help*.

## 4.3 Configuring Dictionaries

Artifact dictionaries define the artifact names that users can select when they create or import content. OpenText Documentum CM for Engineering groups asset documents by content types, registration forms, and asset documents. Configuring artifact dictionaries for asset documents consists of the following tasks:

For information about dictionaries, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

### 4.3.1 Updating the Management Artifacts Dictionary

The Management Artifacts dictionary defines the registration forms that your management group can create.

1. In client configuration, select **Data > Dictionary**.
2. Select the management artifacts dictionary that you created in “[Creating the Management Artifacts Dictionary](#)” on page 60 (for example, Hydro Management Artifacts).
3. Update the dictionary to include the registration form for asset documents (for example, Acme Document Registration Form).

### 4.3.2 Updating the Administrator Artifacts Dictionary

The Administrator Artifacts dictionary defines the content templates that your administrator group can create. Update the dictionary to include the asset documents that administrators can create in your environment.

1. In client configuration, select **Data > Dictionary**.
2. Select the administrator artifacts dictionary that you created in “[Creating the Admin Artifacts Dictionary](#)” on page 61.
3. Update the dictionary to include the content template for asset documents.

### 4.3.3 Creating the Document Type Dictionary

The asset document type dictionary defines the types of documents that authors can create in your environment. When you create the document type dictionary, you adapt the OpenText Documentum CM for Engineering dictionary and configure it with the document types for your environment.

1. In client configuration, select **Data > Dictionary** and select **AO Document Type** from the dictionary list.
2. Click **Create from** and type a name for the dictionary (for example, Acme Hydro Document Type).
3. Update the **Groups** tab for your administration group:

- a. Select the administration group from the **Administration group** list box (for example, **acme\_hydro\_admins**).
  - b. Select the search dictionary group from the **Search Dictionary available for the group** list box (for example, **acme\_hydro\_admins**).
4. Update the document types that authors can create by replacing the default OpenText Documentum CM for Engineering document types with the document types for your environment.

## 4.4 Configuring Classifications

OpenText Documentum CM for Engineering uses dictionary and taxonomy combinations to enable users to classify asset documents.

1. In client configuration, select **Asset Operations Solution** from the application drop-down.
2. Follow these high-level steps to create the dictionaries and taxonomies from the OpenText Documentum CM for Engineering dictionaries and taxonomies:
  - a. Specify a name.
  - b. If necessary, select the Administration group (for example, **acme\_hydro\_admins**).
  - c. Add your application to the **Applications** list.

Use the following table as a guide when associating dictionaries with taxonomies:

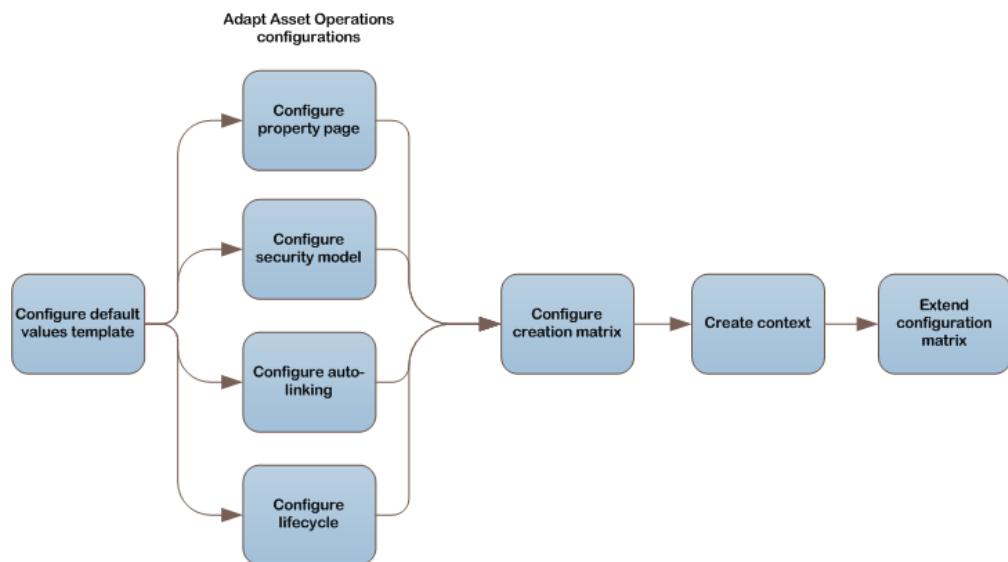
Taxonomy	Dictionary
Acme Utility Organization	Corporation Organization Functional Area Sub Functional Area
Asset Type	Asset Family Asset Type Asset Sub-Type Asset Name
Program Project	Hydro Programs Hydro Sub-Programs Hydro Project
Asset_System_Subsystem	Asset_System Asset_Subsystem

Taxonomy	Dictionary
<b>Business Process</b>	<b>Business Process</b> <b>Business Subprocess</b> <b>Process Function</b> <b>Process Subfunction</b>
<b>Document Type</b>	<b>Document Type Family</b> <b>Document Type Name</b> <b>Document Subtype Name</b>

You can use the dictionaries that you create when you configure property pages for transmittals. For more information about dictionaries and taxonomies, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

## 4.5 Enabling Managers to Create Registration Forms

The following figure illustrates the process for enabling managers to create asset document registration forms:



### 4.5.1 Configuring the Default Values Template

OpenText Documentum CM for Engineering uses a default values template to define the default values for registration forms that managers create. When you configure a default values template, you create a template from the registration form default values template and configure it for your environment.

1. In client configuration, select **Creation > Default values template**.
2. Select **AO Document Registration Default Values** from the template list and click **Create from**.
3. Update the following template values:
  - **authors**: Specifies the group whose members can author documents created from the registration form (for example, acme\_hydro\_doc\_authors).
  - **domain**: Specifies the domain to which the registration form belongs (for example, Acme Hydro).
  - **form\_managers**: Specifies the group whose members can create and manage registration forms (for example, acme\_hydro\_managers).
  - **form\_users**: Specifies the group whose members can access the registration form when it is effective (for example, acme\_hydro).
  - **group\_name**: Identifies the group name prefix that the system uses in queries to determine membership to a role (for example, acme\_hydro).
  - **subject**: String that the system uses in the query to determine members of the form\_manager group.
  - **ao\_can\_be\_in\_wo**: Specifies if the document can be included in a work order. By default, OpenText Documentum CM for Engineering does not include asset document registration forms in work orders.
  - **category**: 0
  - **object\_name**: Default document name, Document Registration Form.
  - **readers**: The default consumer group of the registration form. OpenText Documentum CM for Engineering uses a value of ao to specify the parent group as consumers.

[“Registration Forms” on page 118](#) provides more information on registration form default values.

4. If necessary, add custom properties that you created in [“Creating an Object Type” on page 120](#) and define default values for them.
5. Click **Save**.

## 4.5.2 Adapting OpenText Documentum CM for Engineering Configurations

When you create configurations for asset document registration forms, you adapt OpenText Documentum CM for Engineering registration form configurations and configure them for your environment. Adapting registration form configurations consists of the following tasks:

### 4.5.2.1 Configuring the Property Page

When you configure the registration form property page, you create the configuration from the registration form property page and configure it for your environment. [“Registration Forms” on page 118](#) provides more information on the registration form property page configuration.

1. In client configuration, select **Go to > Property page** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Property pages** list, select **AO Registration Form Property Page** and click **Create from**.
3. Specify a property page name and add your application to the **Applications** list.
4. Associate the property page with the registration form type that you created in [“Creating an Object Type” on page 120](#).
5. Expand the **Properties** field set and update the asset document registration form property configurations as described in the following table:

Tab > Field Set	Properties	Description
Asset Info > Assets	ao_asset_family_s ao_asset_name_s ao_asset_facility ao_asset_area ao_asset_system ao_asset_subsystem	Specifies the asset scope defined by the Asset Type and system/subsystem taxonomies and client dictionaries or taxonomy of facility and area. Select the taxonomy that defines the scope of assets for the documents that authors can create.
Asset Info > License	ao_license_type_s ao_license_name_s ao_license_number_s	Specifies the asset document license type, name, and number corresponding to the Asset License Type and Asset License dictionaries. Select the dictionaries that define asset license information for the documents that authors can create.

Tab > Field Set	Properties	Description
Asset Info > Equipment	ao_major_tag_function ao_tag_function ao_tag_type ao_asset_equipment_number	Specifies major function, function, type, and equipment numbers for the controlled procedure. The AO_MajorFunction_Function_Type taxonomy reflects the NORSOK Coding standard.
Asset Info > Drawing	ao_drawing_number ao_sheet_number	Specifies a unique number and sheet number, respectively, assigned to drawing documents.
Asset Info > Location	ao_location_latitude ao_location_longitude	Specifies the point location corresponding to the registration form.
Classification > Organization	ao_asset_corporation ao_asset_organization ao_asset_org_functional_area ao_asset_org_subfunction	Specifies the organization scope defined by the Acme Utility Organization taxonomy. Select the taxonomy that defines the organizational scope for the documents that authors can create.
Classification > Document Type	ao_doc_type_category ao_doc_type_name ao_doc_subtype_name ao_discipline_s	Specifies the document type scope defined by the Document Type taxonomy and discipline. Select the taxonomy that specifies the classification of the asset document type and dictionary of discipline values.
Classification > Business Process	ao_doc_business_process_0_s ao_doc_business_process_1_s ao_doc_business_process_2_s ao_doc_business_process_3_s	Specifies the business process scope defined by the Business Process taxonomy. Select the taxonomy that specifies the business process scope of created asset documents.
Projects Info> Project	ao_project_title ao_project_number	Select the taxonomy that describes the program/projects.

Tab > Field Set	Properties	Description
Access Control	form_managers form_users	Defines the users or groups selectable as managers and users of the registration form based on the default subject value.
Access Control	All properties associated with the following users and groups: <ul style="list-style-type: none"><li>• Coordinators</li><li>• Authors</li><li>• Reviewers</li><li>• Approvers</li><li>• 2nd Level Approvers</li><li>• Readers</li><li>• TBR Distribution List</li><li>• Auditors</li></ul>	Defines the users and groups that the system assigns to the access roles for documents. The system uses queries to select these values according to the group_name prefix default of each asset document and the common naming convention followed for each group.

For more information about creating taxonomies, see “[Configuring Classifications](#)” on page 122.

6. If necessary, configure the custom properties that you created in “[Creating an Object Type](#)” on page 120.
7. Click **Save**.

#### 4.5.2.2 Configuring the Security Model

When you configure the registration form security model, you create the configuration from the registration form security model and configure it for your environment. “[Registration Forms](#)” on page 118 describes the registration form security model configuration.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Security templates** list, select **AO Registration Form Security Model** and click **Create from**.
3. Specify a security model name and add your application to the **Applications** list.
4. Update the administration group from ao\_admins to your administration group.
5. Click **Save**.

### 4.5.2.3 Configuring Auto-linking

When you configure registration form auto-linking, you create the configuration from the auto-linking configuration and configure it for your environment.

[“Registration Forms” on page 118](#) describes the registration form auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto links** list, select **AO Asset Registration Form Auto Link** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

### 4.5.2.4 Configuring the Lifecycle

When you configure the registration form lifecycle, you adapt the registration form lifecycle to your environment. [“Registration Forms” on page 118](#) describes the registration form lifecycle.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Lifecycles** list, select **AO Registration Form Lifecycle** and add your application to the **Applications** list.
3. Click **Save**.

## 4.5.3 Configuring the Creation Profile

The management artifacts creation matrix enables managers to create registration forms. When you configure the creation profile, you add the document registration form to the matrix that you created in [“Controlled Procedures” on page 41](#).

1. In client configuration, select **Creation > Creation profile** and select your application from the menu bar (for example, Acme Hydro).
2. In the **Matrix** list, select the management artifacts creation matrix (for example, Hydro Registry Artifacts).
3. Update the matrix table adding a row and configuring it as follows:
  - a. Select the document registration form from the first column (for example, **Acme Document Registration Form**).
  - b. Select the registration form type created in [“Creating an Object Type” on page 120](#) from the **Type** list box.
  - c. Select the property page that you created in [“Adapting OpenText Documentum CM for Engineering Configurations” on page 125](#) from the **Property pages** list box.

- d. Select the inheritance that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 125 from the **Inheritance** list box.
  - e. Select the default values template that you created in “[Configuring the Default Values Template](#)” on page 124 from the **Default values template** list box.
  - f. Select **AO Registration Form Lifecycle** from the **Lifecycle** list box.
4. Click **Save**.

#### 4.5.4 Creating a Context

You create the registration form context from the registration form context. The context groups the registration form configurations.

1. In client configuration, select **Go to > Context** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Contexts** list, select **AO Registration Form** and click **Create from**.
3. Type a name for the context and add your application to the **Applications** list.
4. Move the registration form type that you created in “[Creating an Object Type](#)” on page 120 from the **Source** list to the **Selection** list.
5. Click **Save**.

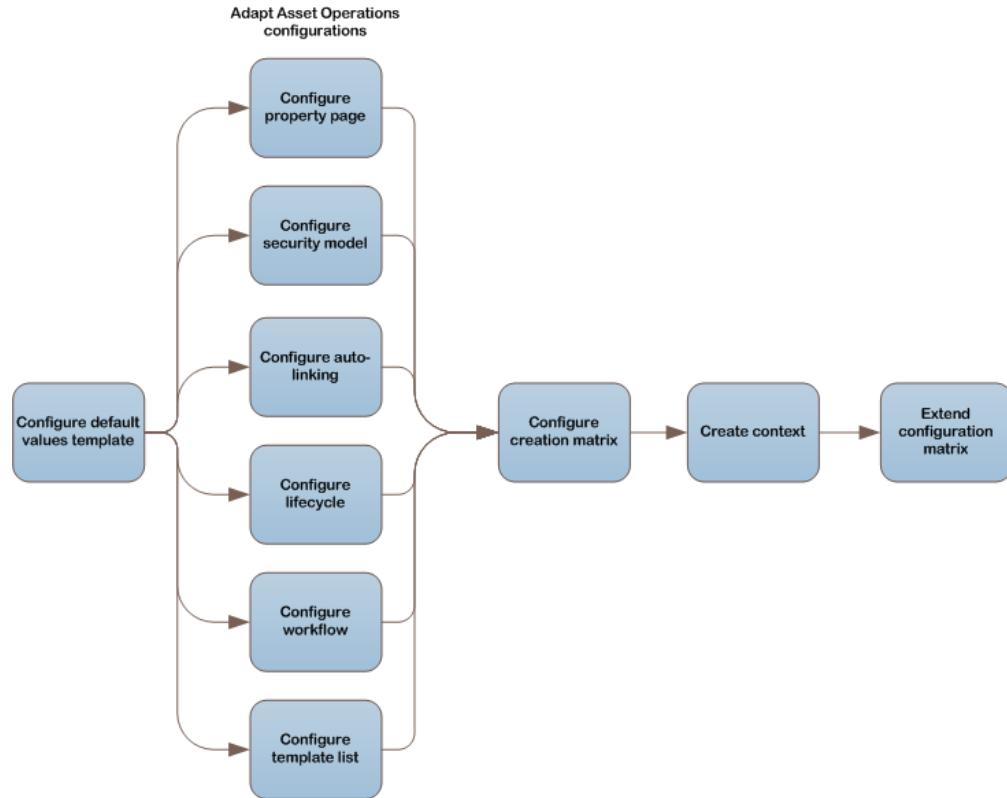
#### 4.5.5 Extending the Configuration Matrix

When you extend the configuration matrix for document registration forms, you enable the configurations for the registration form context.

1. In OpenText Documentum CM client configuration, click **Matrix** and select your application from the application drop-down list.
2. In the column for the registration form context that you created in “[Creating a Context](#)” on page 129, enable the following configurations:
  - **Property page**
  - **Security**
  - **Auto link**
  - **Lifecycle**
3. If necessary, drag the context to the left side of the matrix with the other contexts in your application. Client configuration processes contexts from left to right on the matrix.
4. Click **Save**.

## 4.6 Enabling Administrators to Create Content Templates

The following figure illustrates the process for enabling administrators to create content templates:



### 4.6.1 Configuring the Default Values Template

OpenText Documentum CM for Engineering uses a default values template to define default values for content templates that administrators create.

1. In client configuration, select **Creation > Default values template**.
2. Select **AO Content Template Default Values** from the template list and click **Create from**.
3. Update the following values:
  - **domain**: (application domain of this template. For example, Acme Hydro)
  - **group\_name**: (group name prefix for access to this template. For example, acme\_hydro)

For more information about content template default values, see “[Content Templates](#)” on page 115.

4. If necessary, add custom properties that you created in “[Creating an Object Type](#)” on page 120 and define default values for them.
5. Click **Save**.

## 4.6.2 Adapting OpenText Documentum CM for Engineering Configurations

When you create configurations for asset document content templates, you adapt configurations and configure them for your environment. Adapting content template configurations consists of the following tasks:

### 4.6.2.1 Configuring the Property Page

When you configure the property page for document content templates, you adapt the content template to your environment. “[Content Templates](#)” on page 115 describes the content template configuration.

1. In client configuration, select **Go to > Property page** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Property pages** list, select **AO Content Template Properties** and click **Create from**.
3. Specify a property page name and add your application to the **Applications** list.
4. Click **Save**.

### 4.6.2.2 Configuring the Security Model

When you configure the security model for document content templates, you adapt the content template security model to your environment. “[Content Templates](#)” on page 115 describes the content template security model configuration.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Security templates** list, select **AO Content Template Security** and click **Create from**.
3. Specify a security model name and add your application to the **Applications** list.
4. Update the administration group from `ao_admins` to your administration group.
5. Click **Save**.

### 4.6.2.3 Configuring Auto-linking

When you configure auto-linking for document content templates, you adapt the content template auto-linking configuration to your environment. “Content Templates” on page 115 describes the content template auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto links** list, select **AO Content Template Auto Link** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

### 4.6.2.4 Configuring the Lifecycle

When you configure the lifecycle for document content templates, you adapt the content template lifecycle to your environment. “Content Templates” on page 115 describes the content template lifecycle configuration.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Lifecycles** list, select **AO Content Template Lifecycle** and add your application to the **Applications** list.
3. Click **Save**.

### 4.6.2.5 Configuring the Workflow

When you configure the workflow for document content templates, you adapt the workflow configuration. “Content Templates” on page 115 describes the Asset Operations content template workflow configuration.

For more information on workflow commands, see *OpenText Documentum Content Management Workflow Designer User Guide* on OpenText My Support.

1. In client configuration, select **Go to > Workflow** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Workflow List**, select **AO Content Template Review** and add your application to the **Applications** list.
3. Click **Save**.

#### 4.6.2.6 Configuring the Template List

Even though document content templates do not have content, you need a template configuration to indicate that the system does not require content for the templates.

1. In client configuration, select **Go to > Template list** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Templates** list, select **No Content Required** and add your application to the **Applications** list.
3. Click **Save**.

#### 4.6.3 Configuring the Creation Profile

The document content template creation matrix controls the types of content templates that administrators can create. When you configure the document content template creation matrix, you update the creation matrix that you created for controlled procedures. “Content Templates” on page 115 describes the creation matrix for document content templates.

1. In client configuration, select **Creation > Creation profile** and select your application from the menu bar (for example, Acme Hydro).
2. In the **Matrix** list, select the creation matrix that you created in “Controlled Procedures” on page 41 (for example, Hydro Admin Artifacts).
3. Update the **Content Template** entry and configure it as follows:
  - a. Select the property page that you created in “Adapting OpenText Documentum CM for Engineering Configurations” on page 131 from the **Property pages** list box.
  - b. Select the default values template that you created in “Configuring the Default Values Template” on page 130 from the **Default values template** list box.
4. Click **Save**.

#### 4.6.4 Creating the Context

When you create a document content template context, you create the context from the content template context and configure it for your environment. “Content Templates” on page 115 describes the context for document content templates.

1. In client configuration, select **Go to > Context** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Contexts** list, select **AO Content Template** and click **Create from**.
3. Type a name for the context and add your application to the **Applications** list.
4. In the **Condition** field, define the condition for your domain. For example:

```
domain='Acme Hydro'
```

5. Click **Save**.

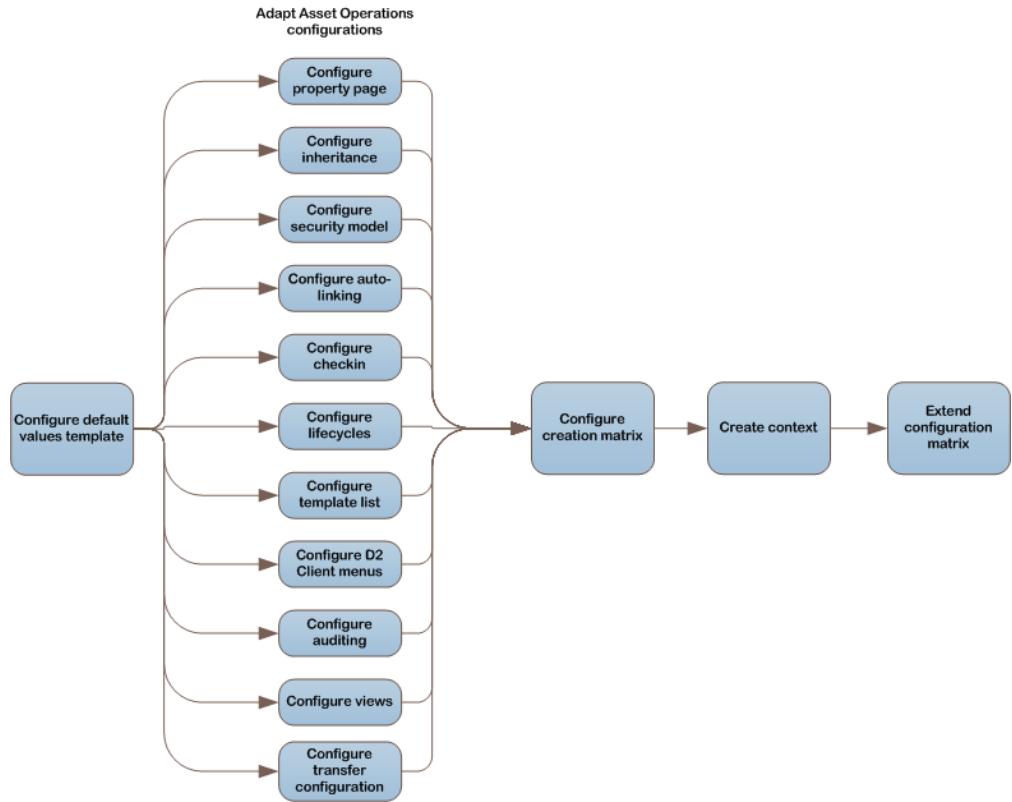
#### 4.6.5 Extending the Configuration Matrix

When you extend the configuration matrix for document content templates, you enable the configurations for the content template context.

1. In client configuration, click **Matrix** and select your application from the application drop-down list.
2. In the column for the content template context that you created in “[Creating the Context](#)” on page 133, enable the following configurations:
  - **Property page**
  - **Security**
  - **Auto link**
  - **Template list**
  - **Lifecycle**
  - **Workflow**
  - **Transfer configuration**
3. If necessary, drag the context to the left side of the matrix with the other contexts in your application. Client configuration processes contexts from left to right on the matrix.
4. Click **Save**.

#### 4.7 Enabling Authors to Create Asset Documents

The following figure illustrates the process for enabling authors to create asset documents:



### 4.7.1 Configuring the Default Values Template

When you configure templates that define the default values for documents that authors create, you create the templates from templates and configure them for your environment.

1. In client configuration, select **Creation > Default values template**.
2. In the **Values templates** list, select **AO Cat 1 Document Default Values** and click **Create from**.

 **Note:** The category of the controlled procedure corresponds to the CAT number.

3. Update the following property values:
  - **authors** (for example, acme\_hydro\_doc\_authors)
    - **auditors**: The default auditors group of the controlled procedure.
    - **readers**: The default consumers of the controlled procedure. Can set to a parent group, For example: acme\_hydro.
  - **domain** (the domain of the associated OpenText Documentum CM client application. For example, Acme Hydro)

- **group\_name** (the group name prefix of accessor roles. For example, acme\_hydro)
    - **ao\_asset\_family\_s**: The default asset family of the controlled procedure.
    - **ao\_asset\_name\_s**: The default asset of the controlled procedure.
4. If you added custom properties to the document type, define the default values for the custom properties.
  5. Click **Save**.
  6. Repeat **step 2** through **step 5** to create from:
    - AO Cat 2 Document Default Values
    - AO Cat 3 Document Default Values
    - AO Cat 4 Document Default Values

## 4.7.2 Adapting OpenText Documentum CM for Engineering Configurations

When you create configurations for asset documents, you adapt document configurations and configure them for your environment. Adapting document configurations consists of the following tasks:

### 4.7.2.1 Configuring the Property Page

When you configure the property page, you create the configuration from the property page and configure it for your environment. “[Category 1–4 Shared Configurations](#)” on page 103 describes the property page configuration.

1. In client configuration, select **Go to > Property page** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Property pages** list, select **AO Property Page** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Select the document type that you created in “[Creating an Object Type](#)” on page 120 from the **Document type** list box.
5. Expand the **Properties** folder and update the property configurations as described in the following table:

Folder	Fieldset	Description
Classification	Organization	<p>Select your organizational taxonomy and levels for the following properties:</p> <ul style="list-style-type: none"> <li>• ao_asset_corporation</li> <li>• ao_asset_organization</li> <li>• ao_asset_org_functional_area</li> <li>• ao_asset_org_subfunction</li> </ul>
	Document Type	<p>Select your document type taxonomy and levels for the following properties:</p> <ul style="list-style-type: none"> <li>• ao_doc_type_category</li> <li>• ao_doc_type_name</li> <li>• ao_doc_subtype_name</li> </ul> <p>Select your discipline dictionary for the ao_discipline property.</p>
	Drawing	ao_drawing_number and a_sheet_number values.
Asset	Asset	<p>Select your asset classification corresponding to the document:</p> <ul style="list-style-type: none"> <li>• ao_asset_family_s</li> <li>• ao_asset_name_s</li> <li>• ao_asset_facility</li> <li>• ao_asset_area</li> <li>• ao_asset_system</li> <li>• ao_asset-subsystem</li> </ul> <p>The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.</p>

Folder	Fieldset	Description
	Equipment	<p>Select your major function, function, type and equipment numbers taxonomy for the controlled procedure. The AO_MajorFunction_Function_Type taxonomy reflects the NORSOK Coding standard for:</p> <ul style="list-style-type: none"> <li>• ao_tag_major_function</li> <li>• ao_tag_function</li> <li>• ao_tag_type</li> </ul> <p>ao_asset_equipment_number should correspond to a query or list of equipment.</p>
	License	<p>Select the regulatory license reflecting Asset License Type dictionary for:</p> <ul style="list-style-type: none"> <li>• ao_license_type_s</li> </ul> <p>Asset License dictionary values for:</p> <ul style="list-style-type: none"> <li>• ao_license_number_s</li> <li>• ao_license_name_s</li> </ul> <p>where the number is the number alias of the name value.</p>
	Location	<p>Optionally enforce value range for:</p> <ul style="list-style-type: none"> <li>• ao_location_latitude</li> <li>• ao_location_longitude</li> </ul>

Folder	Fieldset	Description
Project/Process Info	Project and Program	<p>Select taxonomy for program in the following properties:</p> <ul style="list-style-type: none"> <li>• ao_doc_program_0_s</li> <li>• ao_doc_program_1_s</li> </ul> <p>The taxonomy for project name and number in the following properties:</p> <ul style="list-style-type: none"> <li>• ao_project_title</li> <li>• ao_project_number</li> </ul> <p>Optionally provide query of value jobs for ao_job_number.</p> <p>OpenText Documentum CM for Engineering map a Program Project example program project taxonomy and Projects example taxonomy of project names and numbers to these two pairs of properties.</p> <p> <b>Note:</b> ao_doc_program_2[s] is also provided in the object model.</p>
	Business Process	<p>Select business process taxonomy and labels for the following properties:</p> <ul style="list-style-type: none"> <li>• ao_doc_business_processes_0</li> <li>• ao_doc_business_processes_1</li> <li>• ao_doc_business_processes_2</li> <li>• ao_doc_business_processes_3</li> </ul> <p>OpenText Documentum CM for Engineering maps a Business Process taxonomy to these values.</p>

Folder	Fieldset	Description
Process Info   <b>Note:</b> In the AO Edit Property Page the divider is not displayed.	Above the divider	Select dictionaries for: <ul style="list-style-type: none"><li>• ao_review_period_mos</li><li>• ao_review_period_yrs</li></ul> OpenText Documentum CM for Engineering provides Review Period Months and Review Period Years dictionaries.
	Doc Coordinators	Displays if category is less than 4 to select user or group document coordinator members. Adapt query to parent document coordinator group.
	Authors	Select user or group document author members. Adapt query to parent authors group.
	Reviewers	Displays if category is less than 4 to select user or group document reviewer members. Adapt query to parent reviewers group.
	Approvers	Displays if category is less than 3 to select user or group document approver members. Adapt query to parent approvers group.
	2nd Approvers	Displays if category is one to select user or group second level approver members. Adapt query to parent second approvers group.
	Readers	Select user or group document reader members. Adapt query to parent readers group.
	TBR Distribution List	Displays if category is one to select user or group to-be-read distribution list recipients. Adapt query to parent TBR group.

Folder	Fieldset	Description
Process Info   <b>Note:</b> In the AO Edit Property Page the divider is not displayed.	Auditors	Select user or group auditor members. Adapt query to parent auditors group.
Legacy Project   <b>Note:</b> This is displayed in AO Advanced property.	Handover Info	Select your dictionaries for the following properties: <ul style="list-style-type: none"><li>• eif_revision</li><li>• eif_issue_reason</li><li>• eif_discipline</li><li>• eif_acceptance_code</li></ul>

6. If necessary, configure the custom properties that you created in “[Creating an Object Type](#)” on page 120.
7. Click **Save**.

#### 4.7.2.2 Configuring Inheritance

When you configure inheritance for asset documents, you create the configuration from the OpenText Documentum CM for Engineering inheritance configuration and configure it for your environment. “[Category 1–4 Shared Configurations](#)” on page 103 describes the inheritance configuration.

1. In client configuration, select **Go to > Inheritance** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Inheritances** list, select **AO Asset Inheritance** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Configure the inheritance by moving the custom properties that you created in “[Creating an Object Type](#)” on page 120 from the **Source** list to the **Selection** list.
5. Click **Save**.

#### 4.7.2.3 Configuring the Security Model

When you configure the security model configurations for controlled documents, you create the configurations from the configurations and configure them for your environment. “[Category 1–4 Shared Configurations](#)” on page 103 describes the security model configuration.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Security templates** list, select **AO Cat 1-3 Controlled Doc Security** and click **Create from**.

3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.
5. Select **Go to > Security** and select **Asset Operations Solution** from the application drop-down list.
6. In the **Security templates** list, select **AO Cat 4 Controlled Doc Security** and click **Create from**.
7. Specify a name and add your application to the **Applications** list.
8. Click **Save**.

#### 4.7.2.4 Configuring Auto-linking

When you configure auto-linking for controlled documents, you create the configuration from the auto-linking configuration and configure it for your environment. “[Category 1–4 Shared Configurations](#)” on page 103 describes the auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto links** list, select **AO Document Auto Link** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

#### 4.7.2.5 Configuring Checkin

1. In client configuration, select **Go to > Checkin** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Checkins** list, select **Automatically check-in documents as new minor versions and request PDF renditions** and add your application to the **Applications** list.
3. Click **Save**.

#### 4.7.2.6 Configuring Lifecycles

When you configure lifecycles for asset documents, you create the configurations from lifecycle configurations and configure them for your environment. “[Lifecycles and Workflows](#)” on page 105 describes the lifecycles.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Lifecycles** list, select **AO Cat 1 Document Lifecycle** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.

4. If necessary, add custom properties that you created in “[Creating an Object Type](#)” on page 120 and configure states and actions for them.
5. Repeat [step 2](#) through [step 4](#) to create configurations from **AO Cat 2 Document Lifecycle** and **AO Cat 3 Document Lifecycle**.  
If uncontrolled documents are also in scope, repeat the steps to create configurations from **AO Cat 4 Document Lifecycle**.
6. Click **Save**.

#### 4.7.2.7 Configuring the Template List

When you configure the template list, you create the configuration from OpenText Documentum CM for Engineering and define the query that controls the content templates that appear when authors create documents.

1. In client configuration, select **Go to > Template list** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Templates** list, select **AO Document Type based Templates** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Qualification** field, define the query that determines the content templates that are available to authors when they create documents. For example:

```
ao_content_template where folder('/Acme Hydro Library/Templates/Content Templates',  
descend) and a_status='Effective' and any applicable_artifacts =  
'$value(document_type)' and domain='$value(domain)'
```

5. Click **Save**.

#### 4.7.2.8 Configuring OpenText Documentum CM client Menus

When you configure OpenText Documentum CM client menus, you adapt the menu configuration to control the menus in your environment.

1. In client configuration, select **Go to > Menu D2** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Menus** list, select **Asset Document Menu** and add your application to the **Applications** list.
3. Click **Save**.

#### 4.7.2.9 Configuring Document Auditing

When you configure auditing for controlled documents, you create configurations from audit configurations to audit controlled documents in your environment.

1. In client configuration, select **Go to > Audit** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Audit templates** list, select **Auditing of Cat 1 Controlled Documents** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, move custom properties that you created in from the **Auditable properties** list to the **Audited properties** list.
5. Click **Save**.
6. Repeat **step 2** through **step 5** to create audit configurations from:
  - **Auditing of Cat 2 Controlled Documents**
  - **Auditing of Cat 3Controlled Documents**
  - **Auditing of Cat 4Controlled Documents**

#### 4.7.2.10 Configuring Document Views

When you configure C2 views for asset documents, you create a separate configuration to view PDFs for each controlled document category.

1. In client configuration, select **C2 > View configuration** and select **Asset Operations Solution** from the application drop-down list.
2. In the **View configurations** list, select **AO Category 1 C2 View** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.
5. Repeat **step 2** through **step 4** to create view configurations from:
  - **AO Category 2 C2 View**
  - **AO Category 3 C2 View**
6. Select **Audit Report C2 View** and click **Create from**.
7. Specify a name for the audit report view and add your application to the **Applications** list.
8. Click **Save**.

#### 4.7.2.11 Transfer Configuration

When you configure the mapping between the properties associated with the document object type and the Microsoft Word document template, you create the configuration from the transfer configuration.

1. In client configuration, select **O2 > Transfer configuration** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Transfer configurations** list, select **O2\_Asset\_Template** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, map custom document type properties to corresponding field properties in the Microsoft Word document.
5. Click **Save**.

### 4.7.3 Configuring the Creation Profile

The asset document creation matrix controls the types of documents that authors can create. When you configure the asset document creation matrix, you create the matrix from the matrix and configure it to support the document types for the domain.

1. In client configuration, select **Creation > Creation profile** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Matrix** list, select **AO Artifacts** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Select the author group from the **Users group** list box (for example, **acme\_hydro\_doc\_authors**).
5. Change the **Dictionary** value to the dictionary that defines the documents for the new domain (for example, **Acme Hydro Document Type**).
6. Update the matrix table as follows:
  - a. Remove the default documents (for example, CAT1 and CAT2).
  - b. Add a row and select a document from the dictionary in the first column.
  - c. Select the document type that you created in “[Creating an Object Type](#)” on page 120 from the **Type** list box.
  - d. Select the transfer configuration that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 136 from the **O2 config** list box.
  - e. Select the property page that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 136 from the **Property page** list box.

- f. Select the inheritance that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 136 from the **Inheritance** list box.
  - g. Select the default values template that you created in “[Configuring the Default Values Template](#)” on page 135 from the **Default values template** list box.
  - h. Select the lifecycle that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 136 from the **Lifecycle** list box.
7. Click **Save**.

#### 4.7.4 Creating Document Contexts

Asset document contexts group the configurations for the categories of controlled documents. When you create document contexts, you create the contexts from the OpenText Documentum CM for Engineering asset document contexts.

1. In client configuration, create a context for all controlled documents by selecting **Go to > Context** and Select **Asset Operations Solution** from the application drop-down list.
2. In the **Contexts** list, select **AO Documents** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Move the document type created in “[Creating an Object Type](#)” on page 120 from the **Source** list to the **Selection** list.
5. Update the condition for the document type and the domain. The following example describes the condition for AO documents. A distinct, defaulted domain value should also be added to distinguish and separate from the provided Asset Operation contexts:

```
1 category>1 and r_object_type='ao_document'
```

6. Click **Save**.
7. Create the contexts for each controlled document category:
  - a. In the **Contexts** list, select **AO Cat 1 Controlled Documents** and click **Create from**.
  - b. Specify a name and add your application to the **Applications** list.
  - c. Move the document type created in “[Creating an Object Type](#)” on page 120 from the **Source** list to the **Selection** list.
  - d. Update the condition for the category. The following example describes the condition for Acme Hydro category 1 documents:

```
category = 1 and domain='Acme Hydro'
```
- e. Click **Save**.
- f. Repeat step 7.a through step 7.e to create contexts from:

- AO Cat 2 Controlled Documents
- AO Cat 3 Controlled Documents
- AO Cat 4 Controlled Documents

### 4.7.5 Extending the Configuration Matrix

When you extend the configuration matrix for controlled documents, you enable the configurations for each controlled document context.

1. In client configuration, click **Matrix** and select your application from the application drop-down list.
2. In the column for the context for all controlled documents that you created in “[Creating Document Contexts](#)” on page 146, enable the following configurations:
  - **Property page**
  - **Inheritance**
  - **Security**
  - **Auto link**
  - **Template list**
  - **Menu D2**
  - **Transfer configuration**
3. If necessary, drag the contexts to the left side of the matrix with the other contexts in your application. client configuration processes contexts from left to right on the matrix.
4. Click **Save**.
5. In the column for each controlled document category that you created in “[Creating Document Contexts](#)” on page 146, enable the following configurations:
  - **Security**
  - **Checkin**
  - **Lifecycle**
  - **Audit**
  - **View configuration**
6. If necessary, drag the contexts to the left side of the matrix with the other contexts in your application. client configuration processes contexts from left to right on the matrix.
7. Click **Save**.



# Chapter 5

## Number Reserve

This chapter contains the following topics:

### 5.1 Configuring the Number Reserve for Documents in Operations

This section describes the number reserve configurations provided with OpenText Documentum CM for Engineering for CAT1, CAT2, CAT3, and CAT4 documents. You can adapt and reuse these configurations for Operations and Active Projects.

The following table lists the applied configuration elements that are used by the Number Reserve.

Configuration Category	Configuration Name
Property Page	<p>You can create and configure property pages to determine the properties that end users can view and edit.</p> <p>If you do not specify a properties page in a creation profile, the client content creation wizard skips the properties step.</p> <p><b>AO Number Reserve Property Page</b> is the defined number reserve property. See the configured number reserve properties in <a href="#">“Number Reserve Properties” on page 152</a>.</p> <p><a href="#">“Configuring User-Definable Properties” on page 156</a> contains additional instructions.</p>
Security	<p>You can configure security models, which define dynamic access control lists (ACLs) that apply to contexts. You can specify a condition based on three identifiers to apply a level of permissions. The three types of identifiers are specific users, user groups, and content properties. If multiple conditions match a specific situation, the most extensive set of rights is applied.</p> <p><b>AO Number Reserve Security</b> is the defined number reserve security.</p> <p><a href="#">“Configuring Security” on page 153</a> contains additional instructions to create a new security model.</p>

Configuration Category	Configuration Name
Auto Link	<p>You can configure an automatic process to place content in specified locations in the repository. You can configure an autolink template to have multiple placements, in which case the content is placed in the first and linked to the other placements.</p> <p>Changing the property values of content and affecting its context can cause a change in the placement of the current version of the content.</p> <p>If no autolink rule is configured, OpenText Documentum CM for Engineering adds content to the selected folder. If no folder is selected, OpenText Documentum CM for Engineering adds content to the cabinet level. <b>AO Number Reserve Auto Link</b> contains the defined number reserve autolink.</p> <p><a href="#">“Configuring Auto-linking” on page 159</a> contains additional instructions for creating a new autolink.</p>
Inheritance	<p>You can configure an automatic process to copy properties from existing content to new content.</p> <p><b>AO Number Reserve Inheritance</b> is the defined number reserve inheritance.</p> <p><a href="#">“Configuring Inheritance” on page 162</a> contains additional instructions for creating a new inheritance.</p>
Lifecycle	<p>You can configure aspects of a lifecycle such as entry conditions to lifecycle states, actions to execute when entering a state, and what must happen when moving to the next state. The configured lifecycle followed for number reserve is <b>AO Number Reserve Lifecycle</b>.</p> <p><a href="#">“Number Reserve Lifecycle States” on page 152</a> contains the defined number reserve lifecycle states.</p> <p><a href="#">“Creating the Lifecycle” on page 161</a> contains additional instructions to create a new lifecycle.</p>

Configuration Category	Configuration Name
Default Values Template	<p>You can use default value templates to define the default values assigned to properties when content is created. <b>AO Number Reserve Defaults</b> is the defined number reserve default values template.</p> <p><a href="#">“Configuring the Default Values Template” on page 155</a> contains additional instructions for creating a new number reserve default value templates.</p>
Lifecycle batch	<p>You can configure a lifecycle, target state, and transition type to apply to a group of documents instead of doing so individually. The configured batch lifecycle followed for number reserve are:</p> <ul style="list-style-type: none"> <li>• <b>AO Number Reserve LC Batch</b></li> <li>• <b>AO Number Reserve Failed LC Batch</b></li> </ul>
Auto name	<p><b>AO Number Reserve Naming</b> is the defined number reserve for autoname.</p> <p><a href="#">“Configuring Autonaming” on page 163</a> contains additional instructions for creating a new autonaming.</p>
Context	<p>You can define the configurations that are applicable for a given action based on the document properties and group membership.</p> <p>The following are the defined number reserve contexts:</p> <ul style="list-style-type: none"> <li>• <b>AO Number Reserve</b></li> <li>• <b>AO Number Reserve Queued</b></li> <li>• <b>AO Number Reserve Blocked</b></li> </ul> <p><a href="#">“Creating the Context” on page 171</a> contains additional instructions.</p>
Creation Profile	<p><b>AO Number Reserve</b> is the defined number reserve for creation profile.</p> <p><a href="#">“Configuring the Creation Profile” on page 167</a> contains instructions for creating a new creation profile.</p>

When customizing the applied configurations to address customer-specific business requirements, these configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

### 5.1.1 Number Reserve Lifecycle States

A lifecycle controls the delivery process of a number reserve. The following table describes the lifecycle states for the **Number Reserve**.

State	Description
Draft	The number reserve is in the draft state when a number reserve object is created.
Queued	The number reserve state moves to the queued state when the user clicks the <b>Reserve more than 200 documents</b> option.
In Progress	The number reserve moves to the <b>In Progress</b> state after it starts processing the object.
Reserved	The number reserve moves to the <b>Reserved</b> state after the newly created documents are reserved.
Failed	Number reserve moves to the <b>Failed</b> state if the number reserve creation fails because of exceptions that might occur.
(Reprocess)	This state is not visible to the user. But, the failed number reserve will be reprocessed by OpenText Documentum CM for Engineering during this state.

### 5.1.2 Number Reserve Properties

The following are the AO Number Reserve properties:

- **locale**
- **object name**
- **title**
- **document type**
- **a status**

## 5.2 Configuration Summaries

### 5.2.1 Configuring Security

Number reserve security is configured to apply permissions depending on lifecycle state.

1. Navigate to **Go to > Security** from the menu bar.
2. Select a security model and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.  
OR  
Click **New** to create a security model.
3. Fill out the form as described in the following table:

Field	Description
Name	Type a name to appear in the configuration matrix.
Description	Type a description.
Applications	Add or remove the applications to which this security model applies. For example, adding the QA application would cause the security model to only apply to matching quality assurance cases.

4. Configure levels of permissions:
  - a. Use list controls to add, remove, and reorder permission levels.
  - b. For each level, select an **Identifier** from one of the three list boxes:
    - User
    - Group
    - Property

You can merge text and property context using the following keywords:

Keyword	Description
<code>\$dqlvalue(' &lt;dql request&gt; ')</code>	Perform a DQL request. You must include the quotation marks.
<code>'\$value(&lt;property&gt;) \$value(&lt;property&gt;)' </code>	Merge two properties, for example <code>'\$value(country)\$value(state)'</code>



**Note:** The recommended way to manage the security configuration is via properties associated with the object in question. Using a complex DQL query may not result in expected behavior when OpenText

Documentum CM client is not able to compute the ACL accordingly due to the DQL complexity.

- c. Use list controls to add, remove, and reorder conditions. You cannot remove the default condition.

Conditions relate a property list box to an expression. OpenText Documentum CM client prioritizes the matching of the conditions from top to bottom.

- d. Toggle permissions by double-clicking on the cells as described in the following table:

Right	Description
Change State	Users can change the state of content that has been applied a lifecycle.
Change Owner	Users can change the owner of content. If the user is not the content owner or a superuser, they must also have Write permission.
Change Permit	Users can change the basic permissions of content.
Delete Object	Users can only delete the object. Grant the permission if you want to allow a user to delete without being able to read the content.
Change Folder Links	Users can create or remove links to a folder. Grant the permission if you want to allow a user to move content into a folder without having permissions to read or write within the folder.
Change Location	Users can move content within the repository. The user must also have Write permission to move content and Browse permission to link content. Users Require Delete and Change Location permission to delete a link.
Execute Proc	Users can run external procedures stored in the repository as a dm_procedure on certain object types.

5. Click **Save**.

## 5.2.2 Configuring the Default Values Template

You can use default value templates to define the default values assigned to properties when content is created.

1. Navigate to **Creation > Default value templates** from the menu bar.
2. Select a default value template and click **Create from**.  
OR  
Click **New** to create a default value template.
3. Fill out the form as described in the following table:

Field	Description
Name	Type a name.
Description	Type a description.
Applications	Add or remove the applications to which this default value template applies. For example, adding the QA application would cause the default value template to only apply to matching quality assurance cases.

4. Select a **Property page** if you are setting default values for a query form and you want to restrict the **Properties** selected below to only the property attributes available in the selected property page. This allows you to pick **Do not link to Property** attributes and provide a default value.
5. Click **+** to add properties and their default values:

- a. Select a property in the **Properties** list box.



**Note:** If you select a **QueryFormList** property, ensure that it is set correctly with a dictionary or DQL that will return a value you want to be set by the default value template.

- b. Type the default value for the selected property in the **Default values** field.

The keywords you can use in the default values field are as described in the following table:

Keyword	Description
\$FILENAME	<p>The file name.</p> <p>During content export, you can store the file name into properties other than the <code>object_name</code> by using this keyword.</p> <p>During content import, the file name of the imported file is stored in the property corresponding to the <code>\$FILENAME</code> value in the template.</p>

Keyword	Description
\$USER	The connected user.
\$dqlvalue( "<DQL>" )	A DQL query.
\$TODAY	The current date.
\$NOW	The current date and hour.
\$ALIAS	The alias.

6. Click **Save**.

### 5.2.3 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a number reserve instance.

1. Navigate to **Go to > Property page** from the menu bar.
2. If you want to create a child property page that inherits the properties of an existing property page, select a property page and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.  
OR  
Click **New** to create a property page.
3. Fill out the Properties as described in the following table:

Field	Description
Name	Type a name to appear in the configuration matrix.
Description	Type a description.
Applications	Add or remove the applications to which this property page applies. For example, adding the QA application causes the property page to only apply to matching quality assurance cases.
Document type	Select the document type.

4. Configure Dialog options as described in the following table:

Field	Description
Height	Enter the minimum height of the property page in pixels. If the property page widget in OpenText Documentum CM client does not scroll down far enough to show all property page content, increase the height of the property page.
Width	Enter the width in pixels.
Resizable	Select if you want the property page to be resizable.
Button position	Select the position of the buttons on the property page.
No initial invalid states	Select if you want OpenText Documentum CM client to skip the validation check on load so that fields are not shown as invalid before a user has a chance to enter any data.
Auto Edit in Smart View	Select if you want the property page to be editable by default when the user opens the page.   <b>Note:</b> Consider leaving this option unselected if your property page is complex, which might cause performance issues when the page is first opened. Users have the ability to make the property page editable through an <b>Edit</b> button on the user interface.
Smart View Version	Select an alternate version of the property page that will appear in the OpenText Documentum CM client Smart View.  In some cases, you might need to create an alternate version of a property page if certain page elements do not translate well to the Smart View interface.

5. Configure Structure of the property page.
  - a. Configure **Display time** and **Default time value** options to display the time setting options in the date picker calendar panel in the OpenText Documentum CM client.  
  
You can set default time as **Current time** or **Specific time**.
  - b. Configure property conditions.
6. Add property objects.

You can preview the property page by clicking the **Display preview in create mode**, **Display preview in edit mode**, and **Display preview in import mode** buttons. The buttons show a dialog box with the selected property page form, allowing you to check your work. Permissions configured for each property are active for the preview. If you do not belong to the correct groups, certain properties may not appear when previewing properties.

- a. Use the following table to determine which property objects to add:



### Notes

- Several of the following objects allow property attributes to be set to **Load Asynchronous**, but still allow you to disable the attribute so it is not available in the user interface. The values in a combo field, for example, are only loaded when the attribute is clicked on, so if the property is asynchronous, then the property should always be visible and enabled in the user interface so the user can click on it to execute a query. Data loss could result from a disabled asynchronous attribute setting.
- Use of the **Text** and **Checkbox** fields mapped to an attribute of **date** type is supported for view or disabled only use cases in OpenText Documentum CM client Smart View.

- b. To fill the field with a value, select a **Type** and fill out the subsequent fields. You can select a type for labels, radio buttons, checkboxes, combo fields, and list fields.

The following table describes keywords that you can use if you select **DQL**:

Keyword	Description
as name	Save the value as the <b>Name</b> .
as label	Save and use the value as the <b>Label</b> .
'\$value( <property name> )'	Use the value of the property <i>&lt;property name&gt;</i> .

If you load asynchronously, a DQL query for loading values must include `as name`, `as label`, and `'$value(filter)'`

For example, `select user_name as name, user_name as label from dm_user where '$value(filter)' order by 1`

Ensure that you use specific queries such as the above example. OpenText Documentum CM client may not be able to process large sets of results returned by queries that are too general, such as `select * from`.

- c. To save the value of the field to a property, select a **Property**. If you do not want to save the value to a property, select **Do not link to property** and type an ID for the field in **Control id**. Use the control ID to create value assistance fields.
- d. When applicable, use `<` and `>` to configure reinitialization of properties when content is modified.

7. Click **Save**.



**Note:** While saving a property page, incomplete property conditions are not validated if they are based on the fields that do not exist in the property page.

### 5.2.4 Configuring Auto-linking

Create an Auto Link definition to specify auto linking for your number reserve folders.

1. Navigate to **Go to > Auto link** from the menu bar.
2. Select an auto linking template and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.  
OR  
Click **New** to create an auto linking template.
3. Fill out the form as described in the following table:

Field	Description
Name	Type a name to appear in the configuration matrix.
Description	Type a description.
Applications	Add or remove the applications to which this auto linking template applies. For example, adding the QA application would cause the auto linking template to only apply to matching quality assurance cases.
Label for undefined property	Type a name for the folder to be created if a property is not filled.  For example, if you define the path : / <Property 1>/<Property 2>/ <Property 3>  If <Property 1> = Apple and <Property 2> = Berry, but <Property 3> is not set with a value and you typed Orange in the <b>Label for undefined property</b> field, the auto link template places the content in : /Apple/Berry/Orange
No empty folder on the extremity	Select if you do not want to create a folder for a missing property value. For example, if you take the example from <b>Label for undefined property</b> , instead of placing the content in : /Apple/Berry/Orange the content is placed in : /Apple/Berry

Field	Description
Link all versions to current version folders	Select if you want all versions of the content to be moved to the new location in the repository. If you do not select this checkbox, other versions are kept in their original locations.

4. Configure repeating properties:

Fields	Description
Link only the first value of the repeating properties	Select to link the first values of each repeating property together.
Link repeating properties between themselves	Select to link repeating attributes together.

The following table shows examples of the two checkboxes:

Property 1	Property 2	Property 3	No checked boxes	Link only the first value of the repeating properties	Link repeating properties between themselves
A,B	C,D	E (single)	/A/C/E /A/D/E /B/C/E /B/D/E	/A/C/E	/A/C/E /B/D/E
A,B	C,D	E (repeating)	/A/C/E /A/C/ Undefined /A/D/E /A/D/ Undefined /B/C/E /B/C/ Undefined /B/D/E /B/D/ Undefined	/A/C/E	/A/C/E /B/D/ Undefined

5. Click **Add path** to add a path.
6. Click **+/** to add a folder to a path.
7. Click the text field above the folder category to select and configure a folder property:

- a. Select a property from the **Properties** list box.
- b. Type a **Repeating Index** if the selected property is a repeating property.
- c. If applicable to the selected property, select a dictionary from the **Dictionaries** list box, then select an alias or language.
- d. Click the hand button to add the property.
- e. You can type static text into the folder property.
- f. To reorder properties, drag and drop properties.
8. Click the space between the / symbols and select a default value to associate with the content at different folder levels:
9. Click the space below the default values and select an ACL template for the security of the folder:
10. To set the cabinet to your personal folder, select **Home cabinet**.
11. Click + to add a regular expression.
  - a. Fill out the form as follows:

Field	Description
Name	Type the name of the regular expression.
Pattern	Type the statement to be replaced.
Replace	Type the replacement statement.

For example, having underscore, \_, - respectively replaces all \_ with -.

- b. Use the up and down arrows to reorder the regular expressions. Regular expressions are executed from top to bottom.

12. Click **Save**.



**Note:** Auto Linking is performed only by the installation owner account. You cannot restrict this feature to a specific set of users or groups.

## 5.2.5 Creating the Lifecycle

Defining a domain-specific Lifecycle enables users to define domain specific recipients for the number reserve.

1. In client configuration, select **Go to > Lifecycle** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Lifecycle.
3. In the **Lifecycle State** table, select the **Being Prepared** Start state.
4. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains **Being Prepared** and set the **Dialog box** property to the

Property Page you created in “Configuring User-Definable Properties” on page 465.

5. Save your changes.

## 5.2.6 Configuring Inheritance

1. Navigate to **Go to > Inheritance** from the menu bar.
2. Select an inheritance rule and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.  
OR  
Click **New** to create an inheritance rule.
3. Fill out the form as described in the following table:

Field	Description
Name	Type a name to appear in the configuration matrix.
Description	Type a description.
Applications	Add or remove the applications to which this inheritance rule applies. For example, adding the QA application would cause the inheritance rule to only apply to matching quality assurance cases.

4. Use the list controls to add and remove inherited properties.
5. Select the relation type used during inheritance. The following table describes the differences:

Relation type	Description
Default	Use the COPY_OF relation.
None	No relation used.
Other relation	Select a defined relation type from the list box.

6. If you want to prevent inheritance of Virtual Document structure:
  - a. Type the inheritance prevention condition for each Virtual Document component in **Testing condition on each component**.
  - b. Type a warning message in **Warning message**. The message is shown in when inheritance is performed.
7. Click **Save**.

### 5.2.7 Configuring Autonaming

1. Navigate to **Go to > Auto naming** from the menu bar.
2. If you want to create a child autonaming rule that inherits the properties of an existing autonaming rule, select an autonaming rule and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.

OR

Click **New** to create an autonaming rule.
3. Fill out the form as described in the following table:

Field	Description
Name	Type a name to appear in the configuration matrix.
Description	Type a description.
Applications	Add or remove the applications to which this autonaming rule applies. For example, adding the QA application would cause the autonaming rule to only apply to matching quality assurance cases.

Field	Description
Generate the document name for each property modification	<p>When selected, for every save (<code>dm_save</code>) operation performed on the object, for example:</p> <ul style="list-style-type: none"> <li>When a user clicks <b>OK</b> or <b>Save</b> on a properties page with or without any changes.</li> <li>When using Set Properties and Apply Parameters in a lifecycle that calls the autonaming method.</li> </ul> <p>Then the auto name configuration will be re-applied since these actions result in a <code>dm_save</code> event trigger. This name regeneration action happens regardless if the Auto Naming template includes, or does not include document property, date, or counter placeholders.</p> <p>For example, if an autonaming rule uses the <code>a_status</code> property of the content and uses the counter value option, the following would be expected:</p> <ul style="list-style-type: none"> <li>A user edits the properties of an object, makes a change to <code>a_status</code> field and clicks <b>OK/Save</b>: The name will be updated and reflect the new <code>a_status</code> value and the counter value will increment.</li> <li>A user edits the properties of an object makes a change but <code>a_status</code> field does not change and clicks <b>OK/Save</b>: The name will be updated and still have the unchanged <code>a_status</code> value and the counter value will increment.</li> <li>A user edits the properties of an object makes no changes but still clicks <b>OK/Save</b> instead of <b>Cancel</b>: The name will be updated and still have the unchanged <code>a_status</code> value and the counter will increment.</li> <li>A lifecycle sets the <code>a_status</code> property during a state change and applies these changes causing a <code>dm_save</code> event: The name will be updated and reflect the new <code>a_status</code> value and the counter will increment.</li> <li>A lifecycle sets the property of an attribute other than <code>a_status</code> during a</li> </ul>

Field	Description
	state change and applies these changes causing a dm_save event: The name will be updated and reflect the unchanged a_status value and the counter will increment.
Regenerate on new version	Select to have the document name updated whenever a new version of the content is created.
Property name	Select the property changed.

4. To add a property to the **Auto naming template**:
  - a. Select a property from the **Properties** list box in the **Naming** menu bar.
  - b. Select a dictionary if the property uses a dictionary. Select a language or alias.

 **Note:** Autonaming template does not accept dictionary names that contain brackets.

  - c. Type the index position of the value if the property is a repeating property and you want to select a specific value.  
For example, if you want to select the first value of the list, type 0.
  - d. Type the date format if the property is a date property, select a DQL action, and enter the value. Use the following table to understand what values to type for each DQL action:

DQL Action	Value
DATEADD	year month week day followed by an integer value
DATEFLOOR	year month week day

-  **Note:** The valid year format for autonaming is 'yyyy'.
5. Select the position in the autonaming template, then type text to insert static text.
  6. To configure the counter:
    - a. Type the initial counter value in **Counter value**.
    - b. Select **Counter depends on template properties** to count subtype changes. When not selected, changes to content subtype do not increase the counter.
    - c. Fill the form as follows:

Field	Description
Send email notification to	Type the email address to which OpenText Documentum CM for Engineering sends a notification.
when the number of remaining values is	Type a counter value. When the number of remaining values reaches this number, OpenText Documentum CM for Engineering sends a notification to the previously entered email address alerting the recipient.
Interval start value	Type the starting value.
Interval end value	Type the end value.

- d. Click + to add another interval of counter values. When one interval ends, OpenText Documentum CM client continues the counter from the next sequential interval start value.
7. Click + to add a regular expression:
- a. Fill out the form as follows:
- | Field   | Description                              |
|---------|--|
| Name    | Type the name of the regular expression. |
| Pattern | Type the statement to be replaced.       |
| Replace | Type the replacement statement.          |
- For example, having underscore, \_, - respectively replaces all \_ with -.
- b. Use the up and down arrows to reorder the regular expressions. Regular expressions are executed from top to bottom.
8. Select **Do not apply for: Cross repository copy/paste** to disable the auto naming for cross repository copy and paste operations.
9. Click **Save**.



**Note:** If a user imports multiple files and chooses to use the same creation profile and properties for all files, the Property page wizard step will pre-populate the placeholder label <[filename]> instead of showing an individual file name. The property page represents all files being imported.

### 5.2.8 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document uses pre-defined components, customizing only those components that most customers will need to customize.

Before configuring creation profiles, configure the following components:

- Dictionary (required)
- Taxonomy
- Context (required)
- Inheritance
- Default values template
- Autonaming
- Autolinking
- Lifecycle
- Workflow



**Note:** Ensure that any sub-component of a creation profile belonging to a specific application also belongs to the application. There is no constraint on sub-component selection based on application. When you design a creation profile, you can choose a dictionary/property page/default value template/inheritance/lifecycle that is not part of the application creation profile, which might cause unexpected results.

1. To configure:

- A non-context-based creation profile, navigate to **Creation > Creation profile** from the menu bar.
- A context-based creation profile, navigate to **Go to > Extended creation profile** from the menu bar. An extended creation profile must be mapped to a context for the content type `dm_folder`.



**Note:** When an end user selects a folder, OpenText Documentum CM for Engineering retrieves the creation profiles in the following priority order:

- A standard creation profile if the “Folder properties used for creation” match.
- An extended creation profile if standard creation profiles that match the configuration property are not found.

- A standard creation profile, if an extended creation profile does not exist.
2. If you want to create a child creation profile that inherits the properties of an existing creation profile, select a creation profile and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.
- OR
- Click **New** to create a creation profile.
3. Fill out the form as described in the following table:

Field	Description
Source content	Type a name. The name appears in the configuration profile for extended creation profiles.
Description	Type a description.
Label	Type a label.

Field	Description
Available for	<p>Select the creation method for which the profile is eligible. This is applicable only for a regular creation profile.</p> <ul style="list-style-type: none"> <li>• Select <b>Create</b> to allow end users to control the behavior of a creation profile during content creation but not during content import.</li> <li>• Select <b>Import</b> to allow end users to control the behavior of a creation profile during content import but not during content creation.</li> <li>• Select <b>Linked Documents</b> to allow end users to control the behavior of linked documents during the content creation and import process.</li> <li>• Select <b>Single repository paste</b> to allow end users to control the copy/paste behavior within a single repository.</li> <li>• Select <b>Multi repository paste</b> to allow end users to control the copy/paste behavior between multiple repositories.</li> </ul> <p> <b>Notes</b></p> <ul style="list-style-type: none"> <li>• If a creation profile is created with <b>Single repository paste</b>, then the cut and paste action works as copy and paste.</li> <li>• If the creation profile does not exist for a content during a single or multi repository copy and paste operation, and the doctype of the copied object exists in the target repository, the object is copied as is without any changes. If the doctype of the copied object does not exist, then the content import wizard appears, and you need to follow the same steps as for importing a new content.</li> </ul>
Users group	Select the user groups for which the creation profile applies. This is applicable only for a regular creation profile.

Field	Description
Folder properties used for creation	Select one or more properties. OpenText Documentum CM client only shows the creation profile for folders when the list properties match the <b>Name</b> of the creation profile. Leave this field blank if you do not want to restrict the creation profile by any property. This is applicable only for a regular creation profile.  For example, you can name a creation profile <b>Project A</b> and type the <b>Keywords</b> property for this field. The end user does not receive the option to select this creation profile unless the content being edited contains <b>Project A</b> as a keyword.
Skip edit content step	Select to skip the content editing step after importing the content.
Hide inheritance tab	Select to hide the inheritance options from the creation profile.  If you hide the inheritance tab, end users cannot modify inheritance settings in the OpenText Documentum CM client during creation and import.
Properties inheritance	Select to enable inheritance of content properties.
Content inheritance	Select to enable inheritance of parent content.
Block inheritance modification	Select to prohibit the user from modifying the source content for inheritance through a file selector in the creation profile.

4. Add or remove dictionaries and properties to the creation profile.
5. Use the list controls to add and remove document types and fill out the fields as described in the following table:
  - a. Fill out the default fields as described in the following table:

Field	Description
Property	Select a property to which the value selected from the dictionary is saved.
Values	Select the values from the dictionary to which the document type relates.
Type	Select the content type.
Property pages	Select the property page applied to the content.

Field	Description
Version	Type the starting version number of the new content.   <b>Note:</b> For creation profiles that allow paste operation, you can set the version to blank. In such cases, the source object version is retained for the newly pasted object.
Inheritance	Select the inheritance rule applied to the content.
Default values template	Select the default value template applied to the content.
Lifecycle	Select a lifecycle to which the content is entered.  The lifecycle sets the status of the content to the initial state, and if the lifecycle is set to <b>Execute actions on start</b> , the first action is executed.
Workflow	Select a workflow that the content executes after the create or import process.

- b. Click **Add column** to add a column to the document types.
- 6. For extended creation profiles, toggle the configuration for contexts in the configuration profile.
- 7. Click **Save**.
- 8. Navigate to **Tools > Refresh Cache** to ensure that your changes take effect on the client.

## 5.2.9 Creating the Context

Any change to the configuration matrix in client configuration requires the contexts cached in the OpenText Documentum CM client App Server to be refreshed. This can be done from **Tools -> Refresh** cache in client configuration for which the OpenText Documentum CM client URL needs to be added in the Clients URL section of **Tools -> Options**.

- 1. Navigate to **Go to > Context** from the menu bar.
- 2. If you want to create a child context that inherits the properties of an existing context, select a context and click **Create from**. [Understanding Parent and Child Configurations](#) contains more information on child configurations.  
OR  
Click **New** to create a context.

3. Fill out the form as described in the following table:

Field	Description
Name	Type a name to appear in the configuration matrix.
Description	Type a description.
Applications	Add or remove the applications to which this context applies. For example, adding the QA application causes the context to only apply to matching quality assurance cases.
Parents	Add or remove parent contexts for this context to correspond to a context tree.
Type	Add or remove content types.
Condition	Type the DQL-query filter.
Group	Add or remove user groups. The field conjoins groups using the OR statement.   <b>Note:</b> Property Pages and the following configs are only supported for use with Type or Document Type Context and should not be linked to Group context: <ul style="list-style-type: none"><li>• auto-naming</li><li>• auto-link</li><li>• security config</li><li>• D2 lifecycle</li></ul>

4. Click **Save**.

### 5.2.10 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 171.
2. For this context, make the following selections:
  - **Property Page:** Select the Property Page you created in “[Configuring User-Definable Properties](#)” on page 156.
  - **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 159.

- **Lifecycle:** Select the Lifecycle you created in “[Creating the Lifecycle on page 161](#).”
3. Save your changes.

### 5.2.11 Understanding Parent and Child Configurations

You can create a configuration that inherits the settings and creates a parent-child relationship with an existing configuration. This action copies the configuration module itself, but does not create a child application that has all the modules assigned to that application and context. When you import a configuration update, you can set OpenText Documentum CM client to check for changes made to the parent configuration. OpenText Documentum CM client then generates a PDF document listing the configuration components that were changed and its child configurations. OpenText Documentum CM client does not automatically apply the changes to child configurations because you may not want to change one or more of the child configurations.

If you delete a parent configuration, the child configurations continue to show the deleted configuration as a parent.

## 5.3 Configuring the Number Reserve for Controlled Procedure Documents in Operations

This section describes number reserve configurations provided with OpenText Documentum CM for Engineering. You can adapt and reuse these configurations for controlled procedure documents such as bulletin, objective, plan, and policy.

The following table lists the applied configuration elements that are used by the Number Reserve for Controlled Procedure.

Configuration Category	Configuration Name
Property Page	<p>You can create and configure property pages to determine the properties that end users can view and edit.</p> <p>This property is used for autonumbering and linking new placeholder docs.</p> <p><b>AO Number Reserve Procedure Page</b> is the defined number reserve property for projects.</p> <p><a href="#">“Configuring User-Definable Properties” on page 156</a> contains additional instructions.</p>

Configuration Category	Configuration Name
Security	<p>You can configure security models, which define dynamic access control lists (ACLs) that apply to contexts. You can specify a condition based on three identifiers to apply a level of permissions. The three types of identifiers are specific users, user groups, and content properties. If multiple conditions match a specific situation, the most extensive set of rights is applied.</p> <p><b>AO Number Reserve Security</b> is the defined number reserve security.</p> <p><a href="#">"Configuring Security" on page 153</a> contains additional instructions to create a new security model.</p>
Auto Link	<p>You can configure an automatic process to place content in specified locations in the repository. You can configure an autolink template to have multiple placements, in which case the content is placed in the first and then linked to the other placements.</p> <p>Changing the property values of content and affecting its context can cause a change in the placement of the current version of the content.</p> <p>If no autolink rule is configured, OpenText Documentum CM for Engineering adds content to the selected folder. If no folder is selected, OpenText Documentum CM for Engineering adds content to the cabinet level.</p> <p><b>AO Number Reserve Control Proc Auto Link</b> contains the defined number reserve autolink.</p> <p><a href="#">"Configuring Auto-linking" on page 159</a> contains additional instructions for creating a new autolink.</p>
Inheritance	<p>You can configure an automatic process to copy properties from existing content to new content.</p> <p><b>AO Number Reserve Inheritance</b> is the defined number reserve inheritance.</p> <p><a href="#">"Configuring Inheritance" on page 162</a> contains additional instructions for creating a new inheritance.</p>

Configuration Category	Configuration Name
Lifecycle	<p>You can configure aspects of a lifecycle such as entry conditions to lifecycle states, actions to execute when entering a state, and what must happen when moving to the next state. The configured lifecycle followed for number reserve is <b>AO Number Reserve Lifecycle</b>.</p> <p><a href="#">“Number Reserve Lifecycle States” on page 152</a> contains the defined number reserve lifecycle states.</p> <p><a href="#">“Creating the Lifecycle” on page 161</a> contains additional instructions for creating a new lifecycle.</p>
Default Values Template	<p>You can use default value templates to define the default values assigned to properties when content is created. <b>AO Number Reserve Defaults</b> is the defined number reserve default values template.</p> <p><a href="#">“Configuring the Default Values Template” on page 155</a> contains additional instructions for creating a new number reserve default value templates.</p>
Lifecycle batch	<p>You can configure a lifecycle, target state, and transition type to apply to a group of documents instead of doing so individually. The configured batch lifecycle followed for number reserve are:</p> <ul style="list-style-type: none"> <li>• <b>AO Number Reserve LC Batch</b> Promotes ao_number_reserve objects from <b>Queued</b> to <b>In Progress</b> state.</li> <li>• <b>AO Number Reserve Failed LC Batch</b> Demotes ao_number_reserve objects from <b>In Progress</b> to <b>Queued</b> state.</li> </ul>
Auto name	<p><b>AO Number Reserve Controlled Proc Naming</b> is the defined number reserve for auto name.</p> <p><a href="#">“Configuring Autonaming” on page 163</a> contains additional instructions for creating a new autonaming.</p>

Configuration Category	Configuration Name
Context	<p>You can define the configurations that are applicable for a given action based on the document properties and group membership.</p> <p>The following are the defined number reserve contexts:</p> <ul style="list-style-type: none"> <li>• <b>AO Number Reserve Control Procedure</b></li> <li>• <b>AO Number Reserve Queued</b></li> <li>• <b>AO Number Reserve Blocked</b></li> </ul> <p><i>"Creating the Context" on page 171</i> contains further instructions.</p>
Creation Profile	<p><b>AO Number Reserve Control Procedure</b> is the defined number reserve for creation profile. Allows members of <code>ao_doc_authors</code> to create <code>ao_number_reserve</code> objects.</p> <p><i>"Configuring the Creation Profile" on page 167</i> contains instructions for creating a new creation profile.</p>

## 5.4 Configuring the Number Reserve for Active Projects

This section describes the active projects number reserve configurations provided with OpenText Documentum CM for Engineering. You can adapt and reuse these configurations for Active Projects. These configurations can be used while creating internal or external documents.

The following table lists the applied configuration elements that are used by the Number Reserve for Active Projects.

Configuration Category	Configuration Name
Property Page	<p>You can create and configure property pages to determine the properties that end users can view and edit.</p> <p>This property is used for autonumbering and linking new placeholder docs.</p> <p><b>AO MP Number Reserve Property Page</b> is the defined number reserve property for projects.</p> <p><i>"Configuring User-Definable Properties" on page 156</i> contains additional instructions.</p>

Configuration Category	Configuration Name
Security	<p>You can configure security models, which define dynamic access control lists (ACLs) that apply to contexts. You can specify a condition based on three identifiers to apply a level of permissions. The three types of identifiers are specific users, user groups, and content properties. If multiple conditions match a specific situation, the most extensive set of rights is applied.</p> <p><b>AO Number Reserve Security</b> is the defined number reserve security.</p> <p><a href="#">“Configuring Security” on page 153</a> contains additional instructions to create a new security model.</p>
Auto Link	<p>You can configure an automatic process to place content in specified locations in the repository. You can configure an autolink template to have multiple placements, in which case the content is placed in the first and then linked to the other placements.</p> <p>Changing the property values of content and affecting its context can cause a change in the placement of the current version of the content.</p> <p>If no autolink rule is configured, OpenText Documentum CM for Engineering adds content to the selected folder. If no folder is selected, OpenText Documentum CM for Engineering adds content to the cabinet level.</p> <p><b>AO MP Number Reserve Auto Link</b> contains the defined number reserve autolink.</p> <p><a href="#">“Configuring Auto-linking” on page 159</a> contains additional instructions for creating a new autolink.</p>
Inheritance	<p>You can configure an automatic process to copy properties from existing content to new content.</p> <p><b>AO MP Number Reserve Inheritance</b> is the defined number reserve inheritance.</p> <p><a href="#">“Configuring Inheritance” on page 162</a> contains additional instructions for creating a new inheritance.</p>

Configuration Category	Configuration Name
Lifecycle	<p>You can configure aspects of a lifecycle such as entry conditions to lifecycle states, actions to execute when entering a state, and what must happen when moving to the next state. The configured lifecycle followed for number reserve is <b>AO Number Reserve Lifecycle</b>.</p> <p><a href="#">“Number Reserve Lifecycle States” on page 152</a> contains the defined number reserve lifecycle states.</p> <p><a href="#">“Creating the Lifecycle” on page 161</a> contains additional instructions for creating a new lifecycle.</p>
Default Values Template	<p>You can use default value templates to define the default values assigned to properties when content is created. <b>AO Number Reserve Defaults</b> is the defined number reserve default values template.</p> <p><a href="#">“Configuring the Default Values Template” on page 155</a> contains further instructions for creating a new number reserve default value templates.</p>
Lifecycle batch	<p>You can configure a lifecycle, target state, and transition type to apply to a group of documents instead of doing so individually. The configured batch lifecycle followed for number reserve are:</p> <ul style="list-style-type: none"> <li>• <b>AO Number Reserve LC Batch</b> Promotes ao_number_reserve objects from <b>Queued</b> to <b>In Progress</b> state.</li> <li>• <b>AO Number Reserve Failed LC Batch</b> Demotes ao_number_reserve objects from <b>In Progress</b> to <b>Queued</b> state.</li> </ul>
Auto name	<p><b>AO Number Reserve Naming</b> is the defined number reserve for auto name.</p> <p><a href="#">“Configuring Autonaming” on page 163</a> contains additional instructions for creating a new autonaming.</p>

Configuration Category	Configuration Name
Context	<p>You can define the configurations that are applicable for a given action based on the document properties and group membership.</p> <p>The following are the defined number reserve contexts:</p> <ul style="list-style-type: none"> <li>• AO MP Number Reserve</li> <li>• AO Number Reserve Queued</li> <li>• AO Number Reserve Blocked</li> </ul> <p><a href="#">“Creating the Context” on page 171</a> contains additional instructions.</p>
Creation Profile	<p><b>AO Project Number Reserve</b> is the defined number reserve for creation profile. Allows members of <code>ao_doc_authors</code> to create <code>ao_number_reserve</code> objects.</p> <p><a href="#">“Configuring the Creation Profile” on page 167</a> contains instructions for creating a new creation profile.</p>

## 5.5 Customizing a New Document Type for Number Reserve

Number Reserve feature is configured for CAT1, CAT2, CAT3, and CAT4 by default. If you want the number reserve feature to be applied for a new document type, such as CAT5, perform the following configurations:

1. In **AO Document Type** dictionary, add **CAT5**.
2. In **AO Artifacts** creation profile, add a new creation matrix artifact for CAT5 document type with all the required component columns.
3. Add **CAT5** as a category in **AO Number Reserve Cat Type** dictionary.
4. Save the updated changes.
5. Restart the Java Method Server.
6. Restart the application server.



## Chapter 6

# Transmittals and Distribution Lists

This chapter contains the following topics:

## 6.1 Configuration Summaries

This section describes the transmittal, transmittal template, and distribution list configurations provided with OpenText Documentum CM for Engineering. You adapt and reuse these configurations to create your custom solution. Each solution requires varying levels of customization.

If your application requires properties found in the base application, you can add the new properties to a custom document type and then define and use those properties by customizing additional components.

### 6.1.1 Transmittals

OpenText Documentum CM for Engineering provides a transmittal service for securely collaborating with third parties during on-going repair and maintenance activities. The transmittal service provides a standard process to define and manage a transmittal, its contents, recipients, and means of distribution. The service retains transmittals, their associated distributions, and reference documents as templates for reuse.

The transmittal service enables you to create General or Outgoing transmittals. These transmittals allow you to send and receive documents with internal or external parties through:

- E-mail with links to the transmittal and its content
- notifications of hardcopy dispatch

OpenText Documentum CM for Engineering uses the **ao\_transmittal** object type for transmittals. This object type is a subtype of **ao\_document**. To distinguish transmittals from transmittal templates, the Context should contain the following condition:

1 category=0

Documents are associated with transmittals through two relation types: Transmittal Document and Transmittal Reference Document. In each relation, the document is the parent and the transmittal object is the child.

The following table summarizes the provided configurations for transmittals. Each configuration reflects an applicable context that specifies an object type of **ao\_transmittal**. See “[ao\\_transmittal Properties](#)” on page 193 for descriptions of the object's properties.

Configuration	Description
<b>Auto Naming</b>	<p>Used to auto populate names of documents, folders and other objects created in OpenText Documentum CM for Engineering.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittal Naming</b> configuration.</p>
<b>Property Page</b>	<p>Specifies the transmittal properties and defines the values that controllers can set when creating transmittals.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittal Property Page</b> configuration on create, and <b>AO Transmittal Edit Property</b> for property edit.</p>
<b>Inheritance</b>	<p>Specifies the inheritance of properties.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittal Inheritance</b> configuration.</p>
<b>Security</b>	<p>Specifies access rights for transmittal users.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittal Security Template</b> configuration.</p>
<b>Auto Link</b>	<p>Specifies the location where OpenText Documentum CM for Engineering stores transmittals.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittals</b> configuration.</p>
<b>Lifecycle</b>	<p>Defines the lifecycle of a transmittal.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittal Lifecycle</b> configuration.</p>
<b>Checkin</b>	<p>Enables you to define some basic options for how transmittals are checked in.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>AO Transmittal Lifecycle</b> configuration.</p>
<b>Menu D2</b>	<p>Specifies the OpenText Documentum CM client menu options for transmittals.</p> <p>The <b>AO Transmittal</b> context is preconfigured to use the <b>Transmittal Menu</b> configuration.</p>

Configuration	Description
Audit	Specifies which events are audited.  The <b>AO Transmittal</b> context is preconfigured to use the <b>Auditing of AO Transmittals</b> configuration.

## 6.1.2 Transmittal Templates

Transmittal templates are reusable templates from which users can create transmittal instances. OpenText Documentum CM for Engineering enables users in the **ao\_tr\_managers** role to create transmittal templates. The base type for transmittal templates is **ao\_transmittal**, the same type used for transmittals. To distinguish transmittals from transmittal templates, the transmittal template context should contain the following condition:

```
1 category=-1
```

The following table summarizes the provided configurations for transmittal templates. Each configuration reflects an applicable context that specifies an object type of **ao\_transmittal**. See “[ao\\_transmittal Properties](#)” on page 193 for descriptions of the object's properties.

Configuration	Description
<b>Property Page</b>	Specifies the properties of the transmittal template and defines the values that managers can set when creating transmittals.  The <b>AO Transmittal Templates</b> context is preconfigured to use the <b>AO Transmittal Template Property Page</b> configuration.
<b>Inheritance</b>	Specifies the inheritance of properties.  The <b>AO Transmittal Templates</b> context is preconfigured to use the <b>AO Transmittal Inheritance</b> configuration.
<b>Security</b>	Specifies access rights for the specified transmittal template users.  The <b>AO Transmittal Templates</b> context is preconfigured to use the <b>AO Transmittal Template Security Template</b> configuration.
<b>Auto Link</b>	Specifies the location where OpenText Documentum CM for Engineering stores transmittal templates.  The <b>AO Transmittal Templates</b> context is preconfigured to use the <b>AO Transmittal Templates</b> configuration.

Configuration	Description
<b>Lifecycle</b>	Defines the lifecycle of a transmittal template.  The <b>AO Transmittal Templates</b> context is preconfigured to use the <b>AO Transmittal Template Lifecycle</b> configuration.
<b>Audit</b>	Specifies which events are audited.  The <b>AO Transmittal Templates</b> context is preconfigured to use the <b>Auditing of AO Transmittals</b> configuration.

### 6.1.3 Distribution Lists

Distribution lists define the recipient list for transmittals. A distribution list can be reused across different transmittals and transmittal templates. The base type for distribution lists is **ao\_distribution\_list**.

The following table summarizes the provided configurations for distribution lists. Each configuration reflects an applicable context that specifies an object type of **ao\_distribution\_list**. See “[“ao\\_distribution\\_list Properties” on page 194](#) for descriptions of the object's properties.

Configuration	Description
<b>Property Page</b>	Specifies the properties of the distribution list and defines the values that users can set when creating distribution lists.  The <b>AO Distribution Lists</b> context is preconfigured to use the <b>AO Distribution List Template Properties</b> configuration.
<b>Inheritance</b>	Specifies the inheritance of properties.  The <b>AO Distribution Lists</b> context is preconfigured to use the <b>AO Distribution List Inheritance</b> configuration.
<b>Security</b>	Specifies access for distribution list users.  The <b>AO Distribution Lists</b> context is preconfigured to use the <b>AO Distribution List Security Template</b> configuration.
<b>Auto Link</b>	Specifies the location where OpenText Documentum CM for Engineering stores distribution lists.  The <b>AO Distribution Lists</b> context is preconfigured to use the <b>AO Distribution Lists</b> configuration.

Configuration	Description
<b>Lifecycle</b>	Defines the lifecycle of a distribution list.  The <b>AO Distribution Lists</b> context is preconfigured to use the <b>AO Distribution List Lifecycle</b> configuration.
<b>Audit</b>	Specifies which events are audited.  The <b>AO Distribution Lists</b> context is preconfigured to use the <b>Auditing of AO Transmittals</b> configuration.

#### 6.1.4 Transmittal Lifecycle States

A lifecycle controls the delivery process of a Transmittal. The base OpenText Documentum CM for Engineering lifecycle is **AO Transmittal Lifecycle**. The following table describes the lifecycle states for **AO Transmittal Lifecycle**.

State	Description
<b>Being Prepared</b>	<p>The Transmittal is in preparation and is not available to consumers. Newly created Transmittals are given this state. Only controllers have access to the transmittals in this state.</p> <p>When a Transmittal enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• Transmittal receives default configurations</li> <li>• The status is set to <b>Being Prepared</b></li> <li>• The current user is defined as the “author” of the Transmittal.</li> <li>• The ao_tr_auditors groups is defined as the auditors of the Transmittal.</li> <li>• OpenText Documentum CM for Engineering sets the default coversheet template for the transmittal matching the domain, document type and name: Transmittal CoverSheet Template.doc.</li> <li>• System sets default values to Recipient status to ‘Not Sent Yet’.</li> <li>• System inherits properties defined by inheritance configuration.</li> <li>• System replicates document relations from (Transmittal documents and reference documents) from source object to the new object being created.</li> </ul> <p>When in this state, the user can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Prepare Distribution List:</b> Enables user to define recipients and delivery method.</li> <li>• <b>Associate Coversheet:</b> Enables user to choose a Coversheet template from a list of available templates.</li> <li>• <b>Generate Coversheet:</b> Generates a coversheet from the selected template and adds coversheet to Transmittal as content.</li> <li>• <b>Apply Distribution List Template:</b> Enables user to copy recipients and delivery method from an existing distribution list.</li> <li>• <b>Send:</b> Promote transmittal to Queued state to be generated and sent.</li> <li>• <b>Advanced Properties:</b> Displays the transmittal properties page if user has WRITE permissions.</li> </ul>

<b>State</b>	<b>Description</b>
	<ul style="list-style-type: none"> <li>• <b>Send:</b> Promote transmittal to Queued state to be generated and sent.</li> </ul>
<b>Queued</b>	<p>The Transmittal has moved from the <b>Being Prepared</b> state and is currently in the process of being sent. This occurs when the user clicks <b>Send</b>. Transmittals in this state are being processed offline by the system.</p>
<b>Awaiting Ack</b>	<p>The Transmittal was sent with the <b>Acknowledgement Required</b> flag set to True (ao_to_ack = True). The Transmittal remains in this state until it is acknowledged by the recipient.</p> <p>When in this state, the user can use the <b>Mark as Acknowledged</b> feature to mark a Transmittal as acknowledged. This action lets the user:</p> <ul style="list-style-type: none"> <li>• Set an Acknowledgement Date.</li> <li>• Set the Transmittal state to <b>Awaiting Resp</b> if the response due date is defined.</li> <li>• Set the Transmittal state to <b>Completed</b> if no response due date is defined.</li> </ul>
<b>Awaiting Resp</b>	<p>The Transmittal was sent and the system is currently waiting for a response because the Transmittal response due date was specified.</p> <p>Transmittals receive this status in one of two ways:</p> <ul style="list-style-type: none"> <li>• The Transmittal is moved to this state when the response due date is set, but the ao_to_ack attribute is false.</li> <li>• The Transmittal is moved to this state when the response due date is set and ao_to_ack is set to True. The controller sets the acknowledgement date using <b>Mark as Acknowledged</b>.</li> </ul> <p>When in this state, the user can</p> <ul style="list-style-type: none"> <li>• Use <b>Mark as Complete</b> to mark a Transmittal as Complete, set the Response Received Date, and move the Transmittal template to the next state.</li> <li>• Use <b>Mark as Cancelled</b> to move the Transmittal to the Cancelled state.</li> </ul>
<b>Cancelled</b>	<p>The Transmittal is no longer valid. Transmittals can be moved to this state from the <b>Awaiting Ack</b> and <b>Awaiting Resp</b> states.</p>

State	Description
<b>Invalid</b>	The Transmittal state changes to <b>Invalid</b> whenever any error occurs.
<b>Completed</b>	<p>The Transmittal is considered complete based on successful completion of one of the following scenarios:</p> <ul style="list-style-type: none"><li>• If acknowledgement is not required and a response is not required, the Transmittal is considered complete immediately after it is sent.</li><li>• If acknowledgement is required but a response is not, the Transmittal is complete when it is marked as acknowledged and the acknowledgement date is set.</li><li>• If a response is required but acknowledgement is not, the Transmittal is complete when the controller receives a response from the recipient and sets the Transmittal as Complete.</li><li>• Both acknowledgement and response are required, the system receives both acknowledgement and a response, and the user sets the Transmittal as Complete.</li></ul>

### 6.1.5 Transmittal Template Lifecycle States

A lifecycle controls the approval process of a Transmittal template. The OpenText Documentum CM for Engineering lifecycle is **AO Transmittal Templates Lifecycle**.

The following table describes the lifecycle states for **AO Transmittal Templates Lifecycle**.

State	Description
<b>Init</b>	<p>The state of a newly created Transmittal template. In this state the system defines the following:</p> <ul style="list-style-type: none"> <li>• Transmittal receives default configurations</li> <li>• Status set to <b>Being Prepared</b></li> <li>• Current user appended to <b>form_managers</b> for Transmittal template</li> <li>• Auditors group added as auditors for Transmittal template</li> <li>• System sets default coversheet template</li> <li>• System sets default values to Recipient status</li> <li>• System inherits properties defined by inheritance configuration</li> <li>• System replicates document relations from source object to the new object being created</li> </ul>
<b>Being Prepared</b>	<p>The Transmittal template is in preparation and is not available to Form Users. Only Form Managers have access to the templates in this state.</p> <p>Transmittal templates are moved to this state by the following actions:</p> <ul style="list-style-type: none"> <li>• When a new Transmittal template is created</li> <li>• When a Transmittal template is <b>Effective</b> and the users chooses the <b>Edit</b> action</li> </ul> <p>When in this state, the user can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Prepare Distribution List:</b> enables user to define recipients and delivery method.</li> <li>• <b>Associate Coversheet:</b> enables user to choose a Coversheet template from a list of available templates.</li> <li>• <b>Generate Coversheet:</b> Generates a coversheet from the selected template and adds coversheet to Transmittal as content.</li> <li>• <b>Apply Distribution List Template:</b> Enables user to copy recipients and delivery method from an existing distribution list.</li> </ul>

State	Description
<i>Effective</i>	The Transmittal template is approved for use by all Form Users. To ensure the template is available for preview, the system generates a coversheet and creates a PDF rendition.  Templates are moved to this state from <b>Being Prepared</b> through the <b>Make Effective</b> action.
<b>Inactive</b>	The Transmittal template can no longer be used. Templates are moved to this state from <b>Effective</b> through the <b>Make Inactive</b> action.

### 6.1.6 Distribution List Lifecycle States

A lifecycle controls the approval process of a distribution list. The OpenText Documentum CM for Engineering lifecycle is **AO Distribution List Lifecycle**.

The following table describes the lifecycle states for **AO Distribution List Lifecycle**.

State	Description
<i>Being Prepared</i>	The distribution list is in preparation and is not available to Form Users. Only Form Managers have access to the distribution list in this state.  Distribution lists are moved to this state by the following actions: <ul style="list-style-type: none"> <li>• When a new distribution list is created.</li> <li>• When a distribution list is <b>Published</b> and the users chooses the <b>Edit Distribution List</b> action.</li> </ul> When in this state, the user can use the <b>Publish</b> feature to promote the distribution list to <b>Published</b> and apply security.
<i>Published</i>	The distribution list is published and available for use. When in this state, the user can use the <b>Edit Distribution Lists</b> feature to demote the distribution list to <b>Being Prepared</b> and apply security.

### 6.1.7 Transmittals Security Model

For a description of the Transmittal Lifecycle document states, see “[Transmittal Lifecycle States](#)” on page 185.

State	Document Controller s (authors)	Consumers (readers)	Administrators (ao_admin_s)	Auditors (auditors)	Default (dm_world )	Contributors* (contributors)
<i>Being Prepared</i>	DELETE CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	NONE	DELETE CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	NONE	NONE	Relate
<i>Queued</i>	READ	READ	DELETE CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	READ	NONE	Relate
<i>Awaiting Ack</i>	READ CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	READ	DELETE CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	READ	NONE	Relate
<i>Awaiting Resp</i>	READ CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	READ	DELETE CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	READ	NONE	Relate
<i>Cancelled</i>	READ CHANGE_ STATE CHANGE_ PERMIT CHANGE_ LOCATIO N	NONE	WRITE CHANGE_ PERMIT CHANGE_ LOCATIO N	NONE	NONE	Relate

State	Document Controllers (authors)	Consumers (readers)	Administrators (ao_admins)	Auditors (auditors)	Default (dm_world )	Contributors* (contributors)
<i>Completed</i>	READ	READ	WRITE CHANGE_ PERMIT CHANGE_ LOCATION	READ	NONE	Relate

### 6.1.8 Transmittal Templates Security Model

For a description of the Transmittal Template Lifecycle document states, see “Transmittal Template Lifecycle States” on page 188.

State	Form Managers (form_managers)	Form Users (form_users)	Contributors (contributors)
<i>Being Prepared</i>	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION	NONE	RELATE
<i>Inactive</i>	NONE	NONE	RELATE
<i>Effective</i>	READ	READ	RELATE

### 6.1.9 Distribution List Template Security Model

For a description of the Distribution List Lifecycle document states, see “Distribution List Lifecycle States” on page 190.

State	Form Managers (form_managers)	Form Users (form_users)	Administrators (ao_admins)
<i>Being Prepared</i>	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION	NONE	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION
<i>Published</i>	READ CHANGE_STATE CHANGE_LOCATION	READ	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION

### 6.1.10 Transmittal Folder Security Model

The Transmittal folder security model provides the following permissions for the following users:

- **Document Controllers** (ao\_tr\_controllers): WRITE
- **Consumers** (ao\_tr\_consumers): READ
- **Administrators** (ao\_admins): DELETE
- **Auditors** (ao\_tr\_auditors): READ
- **Default** (dm\_world): NONE
- **Owner** (dm\_owner): DELETE

### 6.1.11 ao\_transmittal Properties

The Transmittal object type is **ao\_transmittals**. This type is used for both Transmittals and Transmittal templates. It contains all of the properties of **ao\_document** and all of the properties listed below. To see the type details, log in to Documentum Composer and find the type under your project folder in: Artifacts > Types.

- **ao\_notes**: Notes/instructions
- **ao\_due\_date**: Due date
- **ao\_date\_completed**: Date completed
- **ao\_to\_ack**: Requires acknowledgement
- **ao\_date\_ack**: Date acknowledged
- **ao\_date\_sent**: Date sent
- **ao\_date\_received**: Date received
- **ao\_from**: From
- **ao\_to**: To
- **ao\_rp\_name**: Recipient name
- **ao\_rp\_company**: Recipient company
- **ao\_rp\_group**: Recipient group
- **ao\_rp\_email**: Recipient email
- **ao\_rp\_delivery**: Recipient delivery
- **ao\_rp\_type**: Recipient type
- **ao\_rp\_status**: Recipient status
- **ao\_tr\_category**: Transmittal category
- **ao\_issue\_reason**: Issue reason

- **ao\_tr\_doc\_ids**: Related temporary document IDs
- **ao\_tr\_doc\_rels**: Related temporary document names
- **ao\_coversheet\_template\_id**: Coversheet template ID

### 6.1.12 **ao\_distribution\_list** Properties

The distribution list object type is **ao\_distribution\_list**. It contains all of the properties of **cd\_controlled\_doc** and all of the properties listed below. To see the type details, log in to Documentum Composer and find the type under your project folder in: Artifacts > Types.

- **ao\_rp\_name**: Recipient name
- **ao\_rp\_company**: Recipient company
- **ao\_rp\_group**: Recipient group
- **ao\_rp\_email**: Recipient email
- **ao\_rp\_delivery**: Recipient delivery
- **ao\_rp\_type**: Recipient type

### 6.1.13 Attribute Expressions for E-mail Templates

You can use attribute expressions to supply attribute values in E-mail templates, the E-mail subject line, and root folder dictionary values. The following attribute expressions are supported:

- **\$\_{attr\_name}**: Supplies the name of the attribute
- **\$\_{recipientName}**: Supplies the recipient name
- **\$\_{recipientEmail}**: Supplies the recipient E-mail
- **\$\_{recipientGroup}**: Supplies the recipient group
- **\$\_{recipientCompany}**: Supplies the company name
- **\$\_{recipientDelivery}**: Supplies the recipient delivery method
- **\$\_{errorMessage}**: Supplies the error message that was generated during a delivery failure
- **\$\_d2URL**: When the delivery method is **Email Link**, you can use this expression for a URL link to an application

For attribute expressions used in coversheets, see “[Configuring a Coversheet Template](#)” on page 201.

## 6.2 Configuring Dictionaries and Taxonomies

Configure your Transmittal dictionaries and taxonomies. You configure system configuration dictionaries, Transmittal dictionaries, and domain-specific dictionaries.

### 6.2.1 Configuring the System Application Server Dictionary

This dictionary provides OpenText Documentum CM for Engineering with a URL for your application. OpenText Documentum CM for Engineering uses the URL to create a link that is sent through E-mail.

1. In client configuration, select **Data > Dictionary** and select **System AppServer Config**.
2. In the lower section, click the **Alias** tab.
3. To extend the base configuration, you can create a new domain specific alias key. For example if your *domain =Acme Hydro* and the existing *key = D2 Url*, create a new key named *Acme Hydro D2 Url* and specify your environment specific OpenText Documentum CM client URL.
4. Type the URL for your base application in the **Base Url** column. For example:  
`http://www.yourserver.com/D2/`
5. Click **Save**.

### 6.2.2 Configuring Email for Transmittal

From Asset Operations 2.0 release onwards, the Transmittal delivery configuration of the email server has moved from OpenText Documentum CM client dictionaries to OpenText Documentum CM for Engineering configuration file.

Perform the following steps to view the configuration provided in the solution:

1. Log in to Documentum Administrator with *ao\_admin* role.
2. Use the **public Search, Find AO Configuration Files** to locate the **System Transmittal Connection Config**. The configuration is predefined for *ao\_transmittal*.
3. The email configuration for transmittal has the following configurations:
  - **Key** column: Email (Default - Do not change the value).
  - **Host Name** column: Type the host name of the mail server.
  - **Port Number** column: Type the port number of the mail server.
  - **Username** column: Type the username of the mail server user whose account is used to send emails

- **Encrypted Password** column: Type an encrypted password for the mail server user. To generate an encrypted username, use the following command from the command prompt:  

```
java -cp dfc.jar com.documentum.fc.tools.RegistryPasswordUtils <password>
```
- **Is SSL** column: Specify whether or not the mail server is configured for SSL. Valid values are **true** and **false**.
- **Is Start TLS** column: Specify whether or not the mail server is configured for STARTTLS. Valid values are **true** and **false**.
- **SSL Protocol** column: If the mail server is configured for SSL, specify the protocol.
- **SSL Socket Factory Class** column: If the mail server is configured for SSL, specify the fully qualified class name used for the SSL Socket Factory.
- **Is Socket Factory Fallback** column: Specify whether or not the mail server is configured for socketFactory.fallback. Valid values are **true** and **false**.
- **Requires Authentication** column: Specify whether or not the mail server requires authentication. Valid values are **true** and **false**.

### 6.2.3 Configuring the Transmittal Delivery Methods Dictionary

This dictionary defines the list of available delivery methods.

1. In client configuration, select **Data > Dictionary** and select **Transmittal Delivery Methods**.
2. In the lower section, click the **Alias** tab.
3. The **Key** column contains your current delivery methods. By default, this list contains **Email Link**, **Email Attachment**, and **Hard Copy**.

For each delivery method, specify values for the following columns.

Column	Value
Implementation Class	The handler class that processes the delivery method. It is recommended not to make changes to this value unless customizing the behavior of the delivery method.

4. Click **Save**.

## 6.2.4 Configuring the AO Localization Messages Dictionary

The following table displays the default email template and messages that is displayed for different Delivery Methods:

Column	Value
<DM>_SUCCESS_MAIL_TEMPLATE	Supply the object name of the text file that supplies the success E-mail template for the delivery method.  OpenText Documentum CM for Engineering looks for a text file with this name in the following Documentum directory: /AO Library/Templates/Content Templates
<DM>_FAIL_MAIL_TEMPLATE	Supply the object name of the text file that supplies the failure E-mail template for the delivery method.
<DM>_SUCCESS_MAIL SUBJECT	Supply a text expression to be used as the subject line of a successful E-mail. To use a variable, enclose it in single quotes. See <a href="#">"Attribute Expressions for E-mail Templates" on page 194</a> for more details about expressions.
<DM>_FAIL_MAIL SUBJECT	Supply a text expression to be used as the subject line of a failed E-mail. To use a variable, enclose it in single quotes as follows:  1 Notification of Delivery Failure for Transmittal No. '\${object_name}' sent to \$_{recipientName}



**Note:** In AO Localization Messages dictionary, navigate to **Languages** tab and select **English** or **Spanish** column to view or update the existing content.

Refer to the following values for <DM>:

Delivery Methods	Prefix <DM>
Email Attachment	TR_EA
Email Link	TR_EL
Hard Copy	TR_HC
Supplier Exchange [1]	TR_SE

[1] This option is applicable only when you install OpenText Documentum CM for Engineering Connector.

## 6.2.5 Other General Transmittal Dictionaries

These dictionaries can be updated if your application requires different settings. These settings apply to Transmittals in all domains.

- **Transmittal Category:** This dictionary defines the type of Transmittal being created. It contains three basic Transmittal types: **General Transmittal**, **Incoming Transmittal** (not supported in 1.1), and **Review Transmittal** (not supported in 1.1).
- **Transmittal Document Relations:** This dictionary defines the types of relationships that can exist between a Transmittal and a document. It contains two values: **Transmittal Document** and **Transmittal Reference Document**.
- **Transmittal Issue Reason:** This dictionary defines the list of available issue reasons.
- **Transmittal Recipient Status:** This dictionary defines the list of available statuses for the delivery of Transmittals to recipients. You can update the display label for this dictionary, but do not change any key values.
- **Transmittal Recipient Type:** This dictionary defines the list of available types of recipients. It contains two values: **Internal** (key=0) and **External** (key=1).

## 6.2.6 Creating Transmittal Recipient Dictionaries

Recipient details are contained in domain-specific dictionaries. For each of the following dictionaries, create a new version for your domain and update it with information about your recipients:

- **AO Transmittal Recipient Companies:** Defines the list of recipient companies and maps company names to a short code. The short code is then used in the Auto naming of the Transmittal.
- **AO Transmittal Recipient Groups:** Defines the list of groups in the recipient companies.
- **AO Transmittal Recipient Names:** Defines the list of recipient names.
- **AO Transmittal Recipient Emails:** Defines the list of recipient E-mail addresses.

For each of the domain-specific dictionaries:

1. In client configuration, select **Data > Dictionary** and select one of the domain-specific dictionaries.
  - AO Transmittal Recipient Companies
  - AO Transmittal Recipient Groups
  - AO Transmittal Recipient Names
  - AO Transmittal Recipient Emails
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name replacing AO with your domain name. For example, Acme

Hydro Transmittal Recipient Companies. You could also create a new dictionary.

3. Click the **Alias** tab.
4. For the Transmittal Recipient Companies dictionary:
  - Supply the company name in the Key column.
  - Supply a short code in the Short Code column for each company in the Key column.
5. For the Transmittal Recipient Groups dictionary: Supply a group name for each group in each company.
6. For the Transmittal Recipient Names dictionary: Supply a name for individual recipients in a company.
7. For the Transmittal Recipient Emails dictionary: Supply the recipient E-mail address.
8. Save your changes.

### 6.2.7 Creating the Domain-Specific Recipient Taxonomy

Create a custom Taxonomy for your recipients. The Taxonomy uses values from the following dictionaries:

- Transmittal Recipient Type
- <your\_domain> Transmittal Recipient Companies
- <your\_domain> Transmittal Recipient Groups
- <your\_domain> Transmittal Recipient Names
- <your\_domain> Transmittal Recipient Emails

The transmittal send action requires these five values. Add internal Documentum users to the dictionaries and update the taxonomy to have these users configured as internal recipients.

1. In client configuration, select **Data > Taxonomy**, select **Asset Operations Solution** from the **Applications** list, and select **AO Transmittal Recipients** from the **Taxonomies** list.
2. Click **Create from** and type a name for your new Taxonomy. You could also create a new dictionary.
3. In the **Used dictionaries** list, select the following dictionaries and click **+to add** them to the Taxonomy. Ensure you add them in the following order:
  - Transmittal Recipient Type
  - <your\_domain> Transmittal Recipient Companies

- <your\_domain> Transmittal Recipient Groups
- <your\_domain> Transmittal Recipient Names
- <your\_domain> Transmittal Recipient Emails

Remove any other dictionaries from the list by selecting it and clicking –.

4. In the Taxonomy values list, **0** indicated an internal recipient and **1** represents an external recipient.
5. Add values to the **Taxonomy values** list. You can manually add the values to the Taxonomy or import them into OpenText Documentum CM from a spreadsheet. See the OpenText Documentum CM client online help for import instructions:
  - In the **Taxonomy values** list, click **0** to add an internal recipient or **1** to add an external recipient.
  - Select a company name from the **Dictionary values** list and click **>**.
  - Select the newly added company name in the **Taxonomy values** list.
  - Select a group name from the **Dictionary values** list and click **>**.
  - Select the newly added group name in the **Taxonomy values** list.
  - Select a recipient name from the **Dictionary values** list and click **>**.
  - Select the newly added recipient name in the **Taxonomy values** list.
  - Select the E-mail address for the selected recipient from the **Dictionary values** list and click **>**.
6. Repeat this process to add all of your recipient information to the Taxonomy. See the *Configuring a Taxonomy* topic in the *OpenText™ Documentum™ Content Management Client Configuration Guide*.

## 6.2.8 Creating Asset Program Project Dictionaries and Taxonomies

Create three dictionaries and one taxonomy structure to capture the programs and projects to which your assets belong. The three dictionaries cover your Programs, Sub-Programs, and Projects.

1. For all three dictionaries, complete the following steps:
  - In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
  - Select a dictionary to build from. Select **Hydro Programs**, **Hydro Sub-Programs**, or **Hydro Projects**.
  - Click **Create from** and type a name for your new dictionary. For example:
    - Acme Hydro Programs

- Acme Hydro Sub-Programs
  - Acme Hydro Projects
- **Administration group:** specify your administrator group, for example, acme\_hydro\_admins.
  - **Search Dictionary available for the group:** specify your administrator group, for example, acme\_hydro\_admins.
  - Add a list of your programs, sub-programs, and projects on the Languages tab for each dictionary. Use the same value for the Key and English columns. Save your changes.
2. Create your Taxonomy as follows:
    - In client configuration, select **Data > Taxonomy**, and select **Asset Operations Solution** from the **Applications** list.
    - Select **Program Project**, click **Create from** and type a name for your new dictionary.
    - In the **Used Dictionaries** list, add the dictionaries you created in the following order:
      - Programs
      - Sub-Programs
      - Projects
    - Add the dictionary values to your Taxonomy.
  3. Save your changes.

## 6.3 Configuring a Coversheet Template

A *coversheet* is a document showcasing details of a Transmittal, such as which documents are included and where the transmittal was sent. The default coversheet template is automatically attached to each Transmittal. You can create your own coversheet template or use the default coversheet template: **Transmittal Coversheet Template.doc**. The default coversheet template is located in the AO DAR file.

The Coversheet should be created in **Microsoft Office Word 2003 XML Format**. When importing the Coversheet into Documentum, select **MS-Word 4.0, 5.0** as the format.

If you create a new domain, you must configure the following items to support coversheets:

- A coversheet template named **Transmittal Coversheet Template.doc** must reside in your domain DAR file.
- The **Transmittal Coversheet Template.doc** coversheet must be **Effective**.

When your user creates a coversheet template in OpenText Documentum CM client, they must ensure they type **General Transmittal** in the **Applicable Artifacts** box.

Information is added to a coversheet through the use of expressions. Expressions identify an attribute. When the coversheet is generated from the template, the attribute expression is replaced with values for the current Transmittal. Expressions use the following syntax:

```
<prefix>.attribute
```

The prefix identifies the subject of the attribute. OpenText Documentum CM for Engineering supports the following three prefixes:

- **tr.out**: Denotes Transmittal attributes.
- **tr.t.out**: Denotes Transmittal attributes. But, appears within a table for repeating attributes.
- **dl.d.out**: Denotes the attributes of an attached document.
- **dl.start** and **dl.end**: Identifies the section that contains attributes related to attached documents.
- **rl.r.out**: Denotes recipient attributes.
- **rl.start** and **rl.end**: Identifies the section that contains attributes related to distribution.

The default coversheet uses attribute expressions to provide the following information:

- **tr.out.object\_name**: Transmittal number
- **tr.out.ao\_to**: Value from the To field
- **tr.out.ao\_from**: Value from the From field
- **tr.out.ao\_date\_sent**: Date the issue was sent
- **tr.out.ao\_date\_due**: Issue return by date
- **tr.out.ao\_issue\_reason**: Transmittal issue reason
- **tr.out.title**: Transmittal title
- **tr.out.ao\_notes**: Summary, notes, and instructions
- **\${tr.start}\${tr.t.out.authors} \${tr.end}**: Use this expression to make the repeating attributes appear in a table with a row for each value. Here, you can replace authors with any repeating attributes.
- **dl.start** and **dl.end**: Identifies the section that contains attributes related to attached documents  
Expressions for all attached documents should appear between the **dl.start** and **dl.end** tags. OpenText Documentum CM for Engineering supports only one instance of **dl.start** and **dl.end** on a single coversheet.
- **dl.end**: Identifies the end of the attributes related to attached documents

- **dl.d.out.object\_name:** Document number of any attached documents
- **dl.d.out.eif\_revision:** Revision number of any attached documents
- **dl.d.out.title:** Title of any attached documents
- **dl.d.out.eif\_acceptance\_code:** Acceptance code for any attached documents
- **rl.start** and **rl.end:** Identifies the section that contains attributes related to distribution

Expressions for distribution attributes should appear between the **rl.start** and **rl.end** tags. OpenText Documentum CM for Engineering supports only one instance of **rl.start** and **rl.end** on a single coversheet.

- **rl.r.out.ao\_rp\_name:** Recipient name
- **rl.r.out.ao\_rp\_company:** Recipient company
- **rl.r.out.ao\_rp\_delivery:** Recipient name delivery method



**Note:** Revising the coversheet template in Microsoft Word may cause formatting XML insertion within the \${rl...} and \${dl...} strings. This is visible when you view the .doc file in a Notepad or XML editor. To correct, save a backup and re-type the \${rl...} and \${dl...} entries. The following table describes an example embedding of document (dl) and recipient (rl) values in tables of the coversheet:

**Table 6-1: Attached Documents**

Document Number	Revision	Title	Acceptance Code
\${dl.start}\${dl.d.out.object_name}	\${dl.d.out.eif_revision}	\${dl.d.out.title}	\${dl.d.out.eif_acceptance_code}\${dl.end}

**Table 6-2: Distribution**

Name	Company	Delivery Method
\${rl.start}\${rl.r.out.ao_rp_name}	\${rl.r.out.ao_rp_company}	\${rl.r.out.ao_rp_delivery} \${rl.end}

## 6.4 Enabling Controllers to Create Transmittals

The following figure illustrates the process for enabling controllers to create transmittals:



This procedure uses the OpenText Documentum CM for Engineering base Transmittal type: **ao\_transmittal**, which is described in “[Transmittals](#)” on page 181. If your application requires additional properties not included in **ao\_transmittal**, create a custom Transmittal type.

### 6.4.1 Configuring the Default Values Template

Define default values for the Transmittals created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO General Transmittal Default Values**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Default Values Template.
3. Configure the following properties and save your changes:
  - **ao\_tr\_category**: The Transmittal category. This should already be configured to: **General Transmittal**.
  - **auditors**: Define the user group that can audit Transmittals. The group name should be <domain\_group\_prefix>\_tr\_auditors. For example: ao\_tr\_auditors
  - **authors**: Define the users that can create Transmittals. This should include current session user represented by \$USER and the domain's controller group: <domain\_group\_prefix>\_tr\_controllers For example: \$USER,ao\_tr\_controllers.
  - **category**: 0 (Transmittals do not use category 1–4 security.)
  - **domain**: Your domain name, for example, AO
  - **group\_name** The group name prefix that is common to all group names in this domain. This prefix is used for selecting default users or groups for different roles of access, for example, ao.
  - **object\_name**: This should already be configured to: **Auto Generated**
  - **readers**: Define the user group that can read Transmittals. The group name should be <domain\_group\_prefix>\_tr\_consumers. For example: ao\_tr\_consumers
  - **ao\_asset\_family\_s**: The asset family. The default option is Power Exploration.
  - **ao\_asset\_name\_s**: The asset name. The default option is Mars.

## 6.4.2 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a Transmittal instance.

1. In client configuration, select **Go to > Property page** and select **AO Transmittal Properties Page**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property Page.
3. In the **Document type** list box, select **ao\_transmittal**.
4. In the Structure section, expand the **Properties** item and then expand the unlabeled folder.
5. Update the properties as described in the following table:

Tab/Fieldset	Property	Settings
Transmittal Info	ao_tr_category	<b>Dictionary:</b> Transmittal Category
	ao_issue_reason	<b>Dictionary:</b> If you created a custom Transmittal Issue Reason dictionary, select the new dictionary from the list.
	ao_from	Selection from DQL query:  <code>Select object_name as name from d2_dictionary_value where dictionary_name='AO Transmittal Recipient Companies' and object_name!='\$value(ao_to)'</code>
	ao_to	Selection from DQL query:  <code>1 Select object_name as name from d2_dictionary_value where dictionary_name='AO Transmittal Recipient Companies' and object_name!='\$value(ao_from)'</code>
	ao_tr_output_format	<b>Dictionary:</b> Transmittal Document Output Format

Tab/Fieldset	Property	Settings
Distribution/Recipient Details	ao_rp_type	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select <b>Transmittal Recipient Type</b>.</p> <p><b>Next Property:</b> ao_rp_company</p>
	ao_rp_company	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Companies” taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_group</p>
Distribution/Recipient Details	ao_rp_group	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Groups” taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_name</p>
Distribution/Recipient Details	ao_rp_name	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Names” taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_email</p>

Tab/Fieldset	Property	Settings
Distribution/Recipient Details	ao_rp_email	<b>Taxonomy:</b> Select the taxonomy you created in “ <a href="#">Creating the Domain-Specific Recipient Taxonomy</a> ” on page 199. <b>Level:</b> Select the “<domain> Transmittal Recipient Emails” taxonomy you created in “ <a href="#">Creating the Domain-Specific Recipient Taxonomy</a> ” on page 199.
Asset Info/Asset	ao_asset_family_s	<b>Dictionary:</b> Asset Family.
	ao_asset_name_s	<b>Dictionary:</b> Asset_name.
	ao_asset_facility	<b>Dictionary:</b> Asset_Facility.
	ao_asset_area	<b>Dictionary:</b> Asset_Area.
	ao_asset_system	<b>Taxonomy:</b> Asset_System_Subsystem Level: Asset_System Next Property: ao_asset_subsystem The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.
ao_asset_subsystem	<b>Taxonomy:</b> Asset_System_Subsystem. <b>Level:</b> Asset_Subsystem.	
Asset Info / License	ao_license_type_s	<b>Dictionary:</b> Asset License Type.
	ao_license_name_s	<b>Dictionary:</b> Asset License Alias: auto.
	ao_license_number_s	<b>Dictionary:</b> Asset License Alias: number.
Asset Info / Project	ao_doc_program_0_s	Taxonomy: Project Project Level: Hydro Programs Next Property: ao_doc_program_1_s
	ao_doc_program_1_s	Taxonomy: Project Project Level: Hydro Sub-Programs
	ao_project_title	Taxonomy: Projects Level: Project Titles Next Property: ao_project_number

Tab/Fieldset	Property	Settings
	ao_project_number	Taxonomy: Projects Level: Project Numbers
Access Control / Controllers	authors	Selection from DQL Query: <pre>select groups_names from dm_group where group_name='ao_tr_controllers' union select i_all_users_names from dm_group where group_name='ao_tr_controllers' union select group_name from dm_group where group_name='ao_tr_controllers' order by 1 desc ENABLE (RETURN_TOP 200)</pre>
Access Control / Consumers	readers	Read only. Defaulted to ao_tr_consumers
Access Control / Auditors	auditors	Read only. Defaulted to ao_tr_auditors.

6. Click **Save**.

### 6.4.3 Configuring the Prepare Distribution List Properties

The **Prepare Distribution List** function enables your users to choose multiple recipients and delivery methods for a Transmittal or Transmittal template. Configure this Property page to define which options and values your users can choose.

1. In client configuration, select **Go to > Property page** and select **AO Transmittal Prepare Recipient List**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property Page.
3. In the **Document type** list box, select **ao\_transmittal**.
4. In the Structure section, expand **Recipient Details** and then expand the unlabeled folder and the **grid**.
5. Update the properties with values from the Taxonomy you created in “[Creating the Domain-Specific Recipient Taxonomy](#)” on page 199.

Property	Value
ao_rp_type	<p><b>Taxonomy:</b> Select the Taxonomy you created.</p> <p><b>Level:</b> &lt;domain&gt; Transmittal Recipient Type</p> <p><b>Next Property:</b> ao_rp_company</p>

Property	Value
<b>ao_rp_company</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Companies <b>Next Property:</b> ao_rp_group
<b>ao_rp_group</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Groups <b>Next Property:</b> ao_rp_name
<b>ao_rp_name</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Names <b>Next Property:</b> ao_rp_email
<b>ao_rp_email</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Emails <b>Next Property:</b> Leave blank.
<b>ao_rp_delivery</b>	<b>Dictionary:</b> Transmittal Delivery Methods

6. Click **Save**.

#### 6.4.4 Configuring Auto-naming

Configure an Auto Naming definition to control the naming of your Transmittals. The Auto Naming function promotes unique names for transmittals.

1. In client configuration, select **Go to > Auto Naming** and select **AO Transmittal Naming**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Auto-Naming configuration.
3. Two properties are defined for the Auto Naming template option: **ao\_from** and **ao\_to**. For *both* properties:
  - Click the property.
  - In the Naming section, set **Dictionaries** to <domain> Transmittal Recipient Companies.
  - Select **Short Code** in the adjacent drop-down list.

Ensure you perform these steps for both the **ao\_from** and **ao\_to** properties. The Auto Naming can be configured according to your needs, the only requirement is that the resulting names are unique.

4. Save your changes.

#### 6.4.5 Configuring Folder Security

Create a security model for the folder that stores your Transmittals. The model specifies the permissions for eligible user groups.

1. In client configuration, select **Go to > Security** and select **AO Transmittal Folder Security Template** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your security template.
3. Ensure the following Identifiers, Conditions, and Permissions are defined. Remove any additional permissions.

Identifier	Conditions	Permissions
dm_world	Default	1–None
Select the administrator group for the domain. For example, acme_hydro_admins	Default	7–Delete
Select your auditors user group. For example, acme_hydro_tr_auditors	Default	3–Read
Select your consumers user group. For example, acme_hydro_tr_consumers	Default	3–Read
Select your controllers user group. For example, acme_hydro_tr_controllers	Default	6–Write

4. For the administrator group for your domain (for example, acme\_hydro\_admins), select:
  - Change State
  - Change Owner
  - Change Permit
5. Click **Save**.

## 6.4.6 Configuring Auto-linking

Create an Auto Link definition to specify a security model for your Transmittal folders.

1. In client configuration, select **Go to > Auto Link** and select **AO Transmittals** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Auto-linking configuration.
3. For the security model on each folder in the **Path** section, specify the security model you created in “[Configuring Folder Security](#)” on page 210.
4. Save your changes.

## 6.4.7 Creating a Lifecycle

Defining a domain specific Lifecycle enables users to define domain specific recipients for the Transmittal. When a user selects a Transmittal that is in the **Being Prepared** state, and then chooses **Prepare Distribution List**, this Lifecycle ensures that the user sees only those recipient details relevant to his domain

By default, OpenText Documentum CM for Engineering Transmittals are processed only when the Transmittal has a PDF rendition. If you do not want to make PDF rendition mandatory, make the following changes:

1. In client configuration, select **Go to > Context** and select **AO Transmittals To be Processed**.
2. Delete the following text for the Condition:  

```
and r_object_id in (select parent_id from dmr_content where full_format='pdf'
and any parent_id=c6_type_alias.r_object_id)
```
3. Click **Save**.
4. In the new transmittal lifecycle, go to the Queued state and under the **<Action type' -> 'Action Parameters'** section, remove the row that contains the following combination:  
**<'Apply Method' -> 'EPFMAGenerateRendition'>**

To create a Lifecycle for Transmittals:

1. In client configuration, select **Go to > Lifecycle** and select **AO Transmittal Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Lifecycle.
3. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains **(Prepare Distribution List)** and set the **Dialog box**

property to the Property Page you created in “[Configuring the Prepare Distribution List Properties](#)” on page 208.

4. Click **Save**.

### 6.4.8 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document mostly uses pre-defined components, customizing only those components that most customers will need to customize.

1. In client configuration, select **Creation > Creation profile** and select **AO Transmittal**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Creation Matrix.
3. Configure the following properties:
  - **Label en**: Type a label name in the box (for example, Hydro Transmittal).
  - **Users group**: Select the controllers user group that can create Transmittals. The group name should be: <domain\_group\_prefix>\_tr\_controllers. For example: acme\_hydro\_tr\_controllers.
  - **Dictionary**: The base Transmittals dictionary should already be defined by default: **Transmittal Category**
4. In the General Transmittal row, select the following values in their respective columns and save your changes:
  - **Type column**: Select **ao\_transmittal**. This is the base type for Transmittals.
  - **O2 config column**: Leave this column blank.
  - **Property pages column**: Select the Property Page you created in “[Configuring User-Definable Properties](#)” on page 205.
  - **Version column**: **0.1**
  - **Inheritance column**: Select **AO Transmittal Inheritance**. This is the base inheritance definition for Transmittals. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template column**: Select the template you created in “[Configuring the Default Values Template](#)” on page 204.
  - **Lifecycle column**: Select the lifecycle you created in “[Creating a Lifecycle](#)” on page 211.
  - **Workflow column**: Leave this column blank.

### 6.4.9 Creating the Context

To create the context:

1. In client configuration, select **Goto > Context** and select **AO Transmittals**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Context.
3. Supply the following values and save your changes:
  - **Selection:** Ensure **ao\_transmittal** appears in the list.
  - **Condition:** Define the domain condition for your application. For example:

```
cateogry=0 and domain='Acme Hydro'
```

The category condition distinguishes the Transmittal context from Transmittal Templates. For the domain condition, specify your domain name.
4. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Transmittals** context.

### 6.4.10 Extending the Configuration Matrix

The configuration matrix specifies settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 213.
2. For this context, make the following selections:
  - **Auto Naming:** Select the Auto Naming definition you created in “[Configuring Auto-naming](#)” on page 209.
  - **Property Page:** Select the Property Page you created in “[Configuring User-Definable Properties](#)” on page 205.
  - **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 211.
  - **Lifecycle:** Select the Lifecycle you created in “[Creating a Lifecycle](#)” on page 211.
  - **Menu D2: Transmittal Menu**
3. Save your changes.

## 6.4.11 Extending the Transmittal

### 6.4.11.1 Enabling Transmittal sent process to work without PDF rendition

By default, OpenText Documentum CM for Engineering Transmittals are processed only when the Transmittal has a PDF rendition. If PDF rendition is not required by default, perform the following changes:

1. In client configuration, select **Go to > Context** and select **AO Transmittals To be Processed**.
2. Delete the following text for the condition:

```
and r_object_id in (select parent_id from dmr_content where full_format='pdf'  
and any parent_id=c6_type_alias.r_object_id)
```
3. Click **Save**.
4. In the new transmittal lifecycle, browse to the Queued state and under the **<'Action type'> > <'Action Parameters'>** section, remove the row that contains the following combination:

```
<'Apply Method'> > <'EPFMAGenerateRendition'>
```

### 6.4.11.2 Modifying the Email Size

You can set the email size limit, when you send the transmittal as a attachment to the email.

By default, the EPFMAZipAndDeliverTransmittal method performs a size check on the zipped Transmittal to ensure that the size is not greater than 10MB before sending it through the email as attachment. If the zip rendition size of transmittal is greater, a mail notification is sent to all the controllers about the delivery failure of transmittal with the following message.

```
Transmittals zip has exceeded the predefined size limit of 'X' MB.  
Please create a new Transmittal with reduced number of attached documents and send.
```

Follow these steps to modify the email attachment size limit:

1. In client configuration, select **Go to > Lifecycles**, select **AO Transmittal Lifecycle** and select **Process Queue** life cycle state.
2. In the action type section, select **EPFMAZipAndDeliverTransmittal** method, you can add an extra argument `zip_email_attach_size_limit <value>` to configure email size limit. The argument value should be in MB. For example, in the argument `zip_email_attach_size_limit 5`, where 5MB is the attachment size limit.
3. Click **Save**.

#### 6.4.11.3 Enabling Other Rendition Formats for a Transmittal

OpenText Documentum CM for Engineering provides support to send the source, pdf, or source and pdf formats in a Transmittal.

The following are the implementation changes in 1.1:

- Added a String attribute `ao_tr_output_format` to `ao_transmittal` type.
- Added a Transmittal Documents Output Format dictionary that has `pdf`, `source`, `source` and `pdf` as key values to be mapped to the `ao_tr_output_format`.



**Note:** Dictionary has both `key` and `<language>` label column. You can customize the `<language>` column as per the requirement.

- On the **AO Transmittal Properties Page** and **AO Advanced Transmittal Property Page** property pages, added a **Transmittal Output Format** drop down list that is mapped to `ao_tr_output_format` property and gets the values from **Transmittal Documents Output Format** dictionary.
- In OpenText Documentum CM client, lifecycle state of AO Transmittal Lifecycle (Process Queue), removed the argument `-format pdf` to `EPFMAZipAndDeliverTransmittal` method.

You can notice the following changes after the implementation:

- If `ao_tr_output_format` attribute value is `pdf`, then pdf rendition of documents is attached to the transmittal.
- If `ao_tr_output_format` value is `source`, then the primary content of documents is attached to the transmittal.
- If `ao_tr_output_format` value is `source and pdf`, then both the primary content and pdf rendition of the documents are attached to the transmittal.
- If `ao_tr_output_format` value is not specified then by default pdf rendition of the documents is attached to the transmittal.

In all these occurrences, the coversheet of the transmittal is in PDF rendition. If the coversheet has no PDF rendition and `ao_tr_output_format` is set to `pdf`, then the primary content of document is attached to the transmittal.

#### 6.4.11.4 Enforcing PDF Coversheet on Shared Transmittal

By default, the EPFMAZipAndDeliverTransmittal method performs a size check on the ao\_tr\_output format attribute on the Transmittal to determine the rendition format used when sharing the Transmittal.

If you need to bypass this check and have system always use the PDF Coversheet, you can modify the use\_pdf\_coversheet and set it to true.

1. In client configuration, select **Go to > Lifecycles**, select **AO Transmittal Lifecycle** and select **Process Queue** life cycle state.
2. In the action type section, select EPFMAZipAndDeliverTransmittal method, you can locate the method argument -use\_pdf\_coversheet false. Replace false to true.
3. Click **Save**.



**Note:** To add additional method argument to an existing method, use hyphen (-) as prefix to the new method argument name followed by a white space and the actual value.

For argument documentation, you can refer to the Javadoc documentation that is shared along with the build.

For example, -use\_pdf\_coversheet true -enable\_revise\_transmittal false

## 6.5 Enabling Managers to Create Transmittal Templates

The following figure illustrates the process for enabling managers to create transmittal templates:



This procedure uses the base Transmittal template type: **ao\_transmittal**, which is described in “[Transmittal Templates](#)” on page 183. If your application requires additional properties not included in **ao\_transmittal**, create a custom Transmittal template type.

### 6.5.1 Configuring the Default Values Template

Define default values for the Transmittal templates created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO General Transmittal Template Default Values**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Default Values Template.
3. Configure the following properties and save your changes:
  - **ao\_tr\_category**: The Transmittal template category. This should already be configured to: **General Transmittal**.
  - **auditors**: Define the users that can audit Transmittal templates. The group name should be \$value(group\_name)\_tr-auditors. For example: acme\_hydro\_tr\_auditors
  - **authors**: Define the users that can create Transmittal templates. The groups should include the current session user (\$USER) and the domain's Controllers group (\$value(group\_name)\_tr\_controllers). For example: \$USER, acme\_hydro\_tr\_controllers.
  - **category**: -1
  - **domain**: Your domain name, for example, Acme Hydro
  - **form\_managers**: Specify the user groups that can create Transmittal templates. The groups should be \$USER and the name of the managers group: <domain\_group\_prefix>\_tr\_managers. For example: \$USER, acme\_hydro\_tr\_managers.
  - **form\_users**: Define the user groups that can create Transmittal templates. The value should be the name of the Controllers group: <domain\_group\_prefix>\_tr\_controllers. For example: acme\_hydro\_tr\_controllers.
  - **group\_name**: The group name prefix that is common to all group names in the domain. This prefix is used for selecting default users or groups for different roles of access, for example, acme\_hydro.
  - **object\_name**: This should already be configured to: **New Transmittal Template**
  - **readers**: Define the user group that can read Transmittal templates. The group name should be <domain\_group\_prefix>\_tr\_consumers. For example: acme\_hydro\_tr\_consumers

## 6.5.2 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a Transmittal template instance.

1. In client configuration, select **Go to > Property page** and select **AO Transmittal Template Properties Page**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property Page.
3. Ensure the following setting is defined: **Document type: ao\_transmittal**
4. Update the properties as described in the following table:

Tab	Fieldset	Property
Transmittal Info	ao_tr_category	<b>Dictionary Transmittal Category</b>
	ao_issue_reason	<b>Dictionary:</b> If you created a custom Transmittal Issue Reason dictionary, select the new dictionary from the list.
ao_from	Selection from DQL Query: <pre>select object_name as name from d2_dictionary_value where dictionary_name='AO Transmittal Recipient Companies' and object_name!='\$value(ao_to)'</pre>	
ao_to	Selection from DQL Query: <pre>select object_name as name from d2_dictionary_value where dictionary_name='AO Transmittal Recipient Companies' and object_name!='\$value(ao_from)'</pre>	
Distribution	ao_rp_type	<b>Taxonomy:</b> Select the taxonomy you created in <a href="#">“Creating the Domain-Specific Recipient Taxonomy” on page 199</a> . <b>Level:</b> Select <b>Transmittal Recipient Type</b> . <b>Next Property:</b> ao_rp_company.

Tab	Fieldset	Property
	ao_rp_company	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Companies” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_group.</p>
	ao_rp_group	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Groups” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_name.</p>
	ao_rp_name	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Names” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_email.</p>

Tab	Fieldset	Property
	ao_rp_email	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Emails” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p>
	ao_rp_delivery	<p><b>Dictionary:</b> If you created a custom Transmittal Delivery Methods dictionary, select the new dictionary from the list.</p>
Asset Info	Assets> ao_asset_family_s	<p><b>Dictionary:</b> Asset Family</p>
	Assets > ao_asset_name_s	<p><b>Dictionary:</b> Asset_name</p>
	Assets > ao_asset_facility	<p><b>Dictionary:</b> Asset_Facility</p>
	Assets > ao_asset_area	<p><b>Dictionary:</b> Asset_area</p>
	Assets > ao_asset_system	<p><b>Taxonomy:</b> Asset_System_Subsystem</p> <p><b>Level:</b> Asset_System</p> <p><b>Next Property:</b> ao_asset_subsystem</p> <p>The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.</p>
	Assets > ao_asset_subsystem	<p><b>Taxonomy:</b> Asset_System_Subsystem</p> <p><b>Level:</b> Asset_SubSystem</p>
	License > ao_license_type_s	<p><b>Dictionary:</b> Asset License Type</p>
	License > ao_license_name_s	<p><b>Dictionary:</b> Asset License</p> <p><b>Alias:</b> auto</p>
	License > ao_license_number_s	<p><b>Dictionary:</b> Asset License</p> <p><b>Alias:</b> number.</p>

Tab	Fieldset	Property
	Projects > ao_doc_program_0	<b>Taxonomy:</b> Select the taxonomy you created in “Creating Asset Program Project Dictionaries and Taxonomies” on page 200, page 148. <b>Level:</b> Select the Programs dictionary you created in “Creating Asset Program Project Dictionaries and Taxonomies” on page 200, page 148.
	Projects > ao_doc_program_1	<b>Taxonomy:</b> Select the taxonomy you created in “Creating Asset Program Project Dictionaries and Taxonomies” on page 200, page 148. <b>Level:</b> Select the Sub-Programs dictionary you created in “Creating Asset Program Project Dictionaries and Taxonomies” on page 200, page 148
	Projects > ao_doc_program_2	<b>Taxonomy:</b> Select the taxonomy you created in “Creating Asset Program Project Dictionaries and Taxonomies” on page 200, page 148. <b>Level:</b> Select the projects dictionary you created in “Creating Asset Program Project Dictionaries and Taxonomies” on page 200, page 148.

5. Click **Save**.



**Note:** Transmittal Templates share the same domain specific **Prepare Recipient List Properties Page** used by Transmittals.

### 6.5.3 Configuring Auto-linking

Create an Auto Link definition to specify a security model for your Transmittal template folders.

1. In client configuration, select **Go to > Auto Link** and select **AO Transmittal Templates** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section, specify the security model you created in “[Configuring Folder Security](#)” on page 210.
4. Click **Save**.

### 6.5.4 Creating a Lifecycle

Defining a domain-specific Lifecycle enables users to define domain specific recipients for the Transmittal Template. When a user selects a template that is in the **Being Prepared** state and chooses **Prepare Distribution List**, this Lifecycle ensures that the user sees only those recipient details relevant to his domain.

1. In client configuration, select **Go to > Lifecycle** and select **AO Transmittal Template Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Lifecycle.
3. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains **(Prepare Distribution List)** and set the **Dialog box** property to the Property Page you created in “[Configuring the Prepare Distribution List Properties](#)” on page 208.
4. Save your changes.

### 6.5.5 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document mostly uses pre-defined components, customizing only those components that most customers will need to customize.

1. In client configuration, select **Creation > Creation profile** and select **AO Transmittal Templates**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Creation profile.

3. Configure the following properties:
  - **Label en:** Type a label name in the box (for example, Hydro Transmittal Templates).
  - **Users group:** Select the managers user group that can create Transmittal templates. The group name should be: <domain\_group\_prefix>\_tr\_managers. For example: acme\_hydro\_tr\_managers.
  - **Dictionary:** The base Transmittals dictionary should already be defined by default: **Transmittal Category**
4. In the General Transmittal row, select the following values in their respective columns and save your changes:
  - **Type** column: Select **ao\_transmittal**. This is the base type for Transmittal templates.
  - **O2 config** column: Leave this column blank.
  - **Property pages** column: Select the Property Page you created in “Configuring User-Definable Properties” on page 218.
  - **Version** column: **0.1**
  - **Inheritance** column: Select **AO Transmittal Inheritance**. This is the base inheritance definition for Transmittal Templates. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template** column: Select the template you created in “Configuring the Default Values Template” on page 217.
  - **Lifecycle** column: Select the lifecycle you created in “Creating a Lifecycle” on page 222.
  - **Workflow** column: Leave this column blank.

## 6.5.6 Creating the Context

To create the context:

1. In client configuration, select **Goto > Context** and select **AO Transmittal Templates**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Context.
3. Supply the following values and save your changes:
  - **Selection:** Ensure **ao\_transmittal** appears in the list.
  - **Condition:** Define the domain condition for your application. For example:

```
1 category<0 and domain='Acme Hydro'
```

The category condition distinguishes the Transmittal context from Transmittal Templates. For the domain condition, specify your domain name.

4. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Transmittal Templates** context.

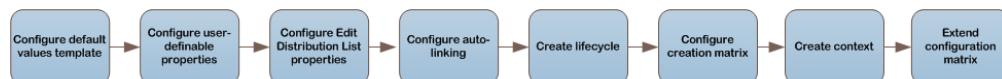
### 6.5.7 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 213.
2. For this context, make the following selections:
  - **Property Page:** Select the Property Page you created in “[Configuring User-Definable Properties](#)” on page 218.
  - **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 222.
  - **Lifecycle:** Select the Lifecycle you created in “[Creating a Lifecycle](#)” on page 222.
  - **Menu D2: Transmittal Menu**
3. Save your changes.

## 6.6 Enabling Users to Create Distribution Lists

The following figure illustrates the process for enabling users to create distribution lists:



This procedure uses the base distribution list type: **ao\_distribution\_list**, which is described in “[Distribution Lists](#)” on page 184.

### 6.6.1 Configuring the Default Values Template

Define default values for the distribution lists created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO General Distribution List Default Values**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Default Values Template.
3. Configure the following properties and save your changes:
  - **category:** 0
  - **domain:** Your domain name, for example, Acme Hydro
  - **form\_managers:** Specify the user group that can create distribution lists. The group should be \$<domain\_group\_prefix>, tr\_managers and \$USER .
  - **form\_users:** Define the user group that can create distribution lists. The group should be: <domain\_group\_prefix>\_tr\_controllers. For example: acme\_hydro\_tr\_controllers.
  - **group\_name** The group name prefix that is common to all group names in the domain. This prefix is used for selecting default users or groups for different roles of access, for example, acme\_hydro.
  - **object\_name:** This should already be configured to: **New Distribution List - \$NOW**.

### 6.6.2 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a distribution list instance.

1. In client configuration, select **Go to > Property page** and select **AO Distribution List Template Properties**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property Page.
3. For **Document type**, select **ao\_distribution\_list**.
4. In the Structure section, expand the **Properties** item and then expand the unlabeled folder.
5. Update the properties as described in the following table:

Tab	Fieldset	Property
Distribution > Recipient Details > grid	ao_rp_type	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select <b>Transmittal Recipient Type</b>.</p> <p><b>Next Property:</b> ao_rp_company.</p>
	ao_rp_company	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Companies” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_group.</p>
	ao_rp_group	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Groups” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_name.</p>

Tab	Fieldset	Property
	ao_rp_name	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Names” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Next Property:</b> ao_rp_email.</p>
	ao_rp_email	<p><b>Taxonomy:</b> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><b>Level:</b> Select the “&lt;domain&gt; Transmittal Recipient Emails” dictionary you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p>
	ao_rp_delivery	<p><b>Dictionary:</b> If you created a custom Transmittal Delivery Methods dictionary, select the new dictionary from the list.</p>

6. Click **Save**.

### 6.6.3 Configuring the Edit Distribution List Properties

The **Edit Distribution List** function enables your users to choose multiple recipients and delivery methods for a distribution list. Configure this Property page to define which options and values your users can choose.

1. In client configuration, select **Go to > Property page** and select **AO Edit Distribution List Properties**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property Page.
3. In the **Document type** list box, select **ao\_distribution\_list**.
4. Update the properties with values from the Taxonomy you created in “[Creating the Domain-Specific Recipient Taxonomy](#)” on page 199.

Property	Value
<b>ao_rp_type</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Type <b>Next Property:</b> ao_rp_company
<b>ao_rp_company</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Companies <b>Next Property:</b> ao_rp_group
<b>ao_rp_group</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Groups <b>Next Property:</b> ao_rp_name
<b>ao_rp_name</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Names <b>Next Property:</b> ao_rp_email
<b>ao_rp_email</b>	<b>Taxonomy:</b> Select the Taxonomy you created. <b>Level:</b> <domain> Transmittal Recipient Emails <b>Next Property:</b> Leave blank
<b>ao_rp_delivery</b>	<b>Dictionary:</b> Transmittal Delivery Methods

5. Click **Save**.

#### 6.6.4 Configuring Auto-linking

Create an Auto Link definition to specify a security model for your distribution list folders.

1. In client configuration, select **Go to > Auto Link** and select **AO Distribution Lists** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section, specify the security model you created in “[Configuring Folder Security](#)” on page 210.
4. Click **Save**.

## 6.6.5 Creating the Lifecycle

Defining a domain specific Lifecycle enables users to define domain specific recipients for the distribution list. When a user selects a distribution list that is in the **Being Prepared** state, and then chooses **Edit Distribution List**, this Lifecycle ensures that the user sees only those recipient details relevant to his domain.

1. In client configuration, select **Go to > Lifecycle** and select **AO Distribution List Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Lifecycle.
3. In the **Lifecycle State** table, select the **Published** Start state.
4. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains **Being Prepared** and set the **Dialog box** property to the Property Page you created in “[Configuring the Edit Distribution List Properties](#)” on page 227.
5. Save your changes.

## 6.6.6 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document mostly uses pre-defined components, customizing only those components that most customers will need to customize.

1. In client configuration, select **Creation > Creation profile** and select **AO Distribution Templates**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Creation Matrix.
3. Configure the following properties:
  - **Label en:** Type a label name in the box (for example, Hydro Distribution Templates).
  - **Users group:** Select the authors user group that can create distribution lists. The group name should be: `<domain_group_prefix>_tr_controllers`. For example: `acme_hydro_tr_controllers`.
4. In the **Distribution List** row, select the following values in their respective columns and save your changes:
  - **Type** column: Select `ao_distribution_list`. This is the base type for distribution lists.

- **O2 config** column: Leave this column blank.
- **Property pages** column: Select the Property Page you created in “Configuring User-Definable Properties” on page 225.
- **Version** column: **0.1**
- **Inheritance** column: Select **AO Transmittal Inheritance**. This is the base inheritance definition for distribution lists. If you created your own inheritance definition, select the custom inheritance definition instead.
- **Default Values Template** column: Select the template you created in “Configuring the Default Values Template” on page 225.
- **Lifecycle** column: Select the lifecycle you created in “Creating the Lifecycle” on page 229.
- **Workflow** column: Leave this column blank.

### 6.6.7 Creating the Context

To create the context:

1. In client configuration, select **Goto > Context** and select **AO Distribution Lists**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Context.
3. Supply the following values and save your changes:
  - **Selection**: Ensure **ao\_distribution\_list** appears in the list.
  - **Condition**: Specify the domain condition for your application. For example:  
`domain='Acme Hydro'`
4. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Distribution Lists** context.

### 6.6.8 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “Creating the Context” on page 230.
2. For this context, make the following selections:
  - **Property Page**: Select the Property Page you created in “Configuring User-Definable Properties” on page 225.
  - **Auto Link**: Select the Auto Link definition you created in “Configuring Auto-linking” on page 228.

- **Lifecycle:** Select the Lifecycle you created in “[Creating the Lifecycle on page 229](#).”
  - **Menu D2: Transmittal Menu**
3. Save your changes.



# Chapter 7

## Change Management

OpenText Documentum CM for Engineering provides configurations for managing changes to asset documents. When you implement change management functionality, business requirements determine if you adapt OpenText Documentum CM for Engineering configurations as-is or if you adapt the configurations and then update them for your implementation. This chapter contains the following topics:

### 7.1 Configuration Summaries

The following topics describe default change management configurations in OpenText Documentum CM for Engineering:

#### 7.1.1 Change Requests

A change request is a controlled document that lists proposed changes to a set of asset documents. After an author creates a change request, the system creates a relationship between the change request and the asset documents. An author can create a change request as a category 1, 2, or 3 controlled document.

OpenText Documentum CM for Engineering defines an `ao_change_request` relation between change notices (type `ao_change_notice`) and controlled documents (type `cd_controlled_doo`) with the change request as the parent of the relation.

The OpenText Documentum CM for Engineering **AO Artifacts** creation profile contains a **CR** artifact that enables members of the authors group to create change requests. The creation profile is pre-configured with the following elements:

- Type
- O2 config
- Property pages
- Version
- Inheritance
- Default values template
- Lifecycle
- Workflow

The **AO Change Request Default Values** template provides default values for change requests. The template is preconfigured to provide default values for the following properties:

- **auditors**: Identifies the group that can audit the change request. OpenText Documentum CM for Engineering uses a value of `ao_doc_auditors`.

- **authors:** Identifies the author of a change request.
- **domain:** Specifies the domain to which the change request belongs. OpenText Documentum CM for Engineering uses a value of **AO**.
- **group\_name:** Specifies the prefix that the system uses to define default users or groups for roles that work with change requests. OpenText Documentum CM for Engineering uses a value of **ao**.
- **readers:** Specifies the group that can read change requests. OpenText Documentum CM for Engineering uses the domain group name value of **ao**.
- **revisions\_required:** Specifies whether the change request is a standalone change request (value of false) or if the documents associated with the change request require updates (value of true). OpenText Documentum CM for Engineering uses a default value of true.

The **AO Change Request** context groups the change request configurations in OpenText Documentum CM for Engineering. The following table describes the configurations. Navigate to the configurations in the client configuration matrix for the **Asset Operations Solution** application to view configuration details or use client configuration to generate a detailed specification for the application.

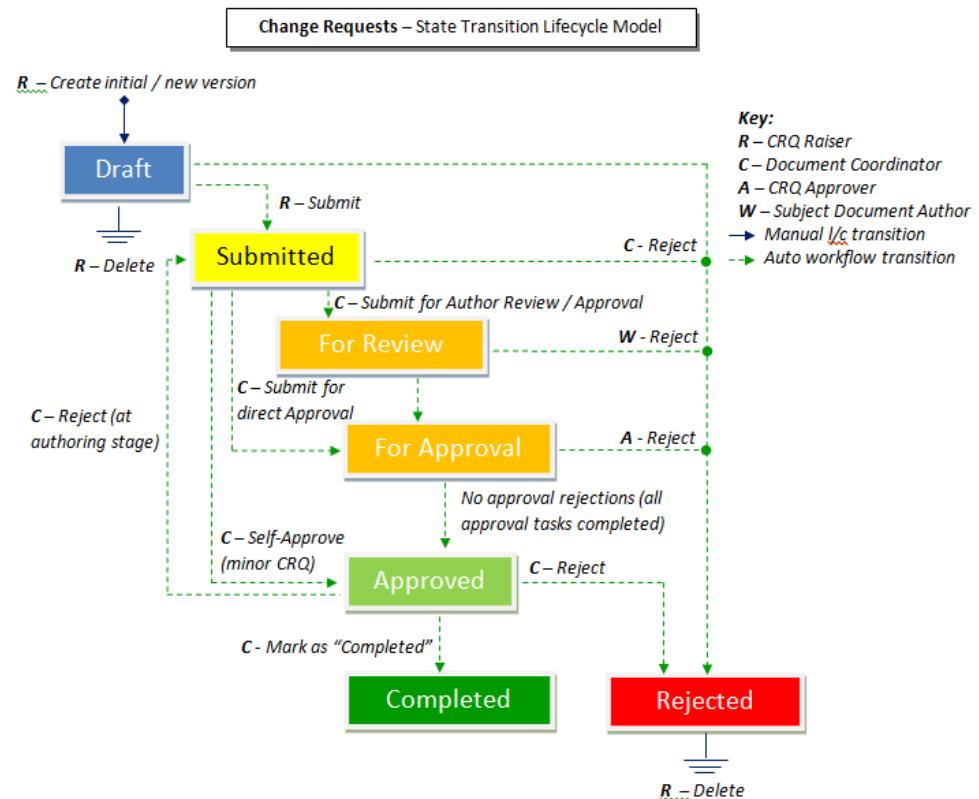
Configuration	Description
<b>Auto naming</b>	<p>Specifies the following naming convention for change requests:</p> <p>CR &lt;number&gt; - &lt;ao_reason_code&gt;</p> <p>where:</p> <ul style="list-style-type: none"> <li>• &lt;number&gt; is the system-generated number for the change request</li> <li>• &lt;ao_reason_code&gt; is the dictionary value for the reason why the author created the change request</li> </ul> <p><b>Change Request Reason Codes</b> dictionary selections used in property pages.</p> <p>The context is preconfigured to use the <b>AO Change Request Naming</b> configuration.</p>
<b>Property page</b>	<p>Defines the layout of change requests and controls the values that authors can enter and select when creating change requests.</p> <p>The context is preconfigured to use the <b>AO Change Request Edit Properties</b> configuration.</p> <p><b>AO Change Request Properties</b> displays during creation.</p>

<b>Configuration</b>	<b>Description</b>
<b>Inheritance</b>	<p>Specifies the properties that change requests inherit when authors create change requests.</p> <p>The context is preconfigured to use the <b>AO Change Request Inheritance</b> configuration.</p>
<b>Security</b>	<p>Defines access to change requests as they progress through the review and approval lifecycle.</p> <p>The context is preconfigured to use the <b>AO Change Request Security Model</b> configuration.</p>
<b>Auto link</b>	<p>Specifies where OpenText Documentum CM for Engineering stores change requests and defines the security for the folders that contain the change requests. Change requests details are stored in the following location:</p> <p>&lt;domain&gt;/Change Requests/&lt;ao_reason_code&gt;</p> <p>The context is preconfigured to use the <b>AO Change Request Auto Link</b> configuration.</p>
<b>Template list</b>	<p>Defines the change request templates available to authors when they create change requests.</p> <p>The context is preconfigured to use the <b>AO Change Request Template</b> configuration.</p>
<b>Lifecycle</b>	<p>Defines the state transition lifecycle for change requests.</p> <p>The context is preconfigured to use the <b>AO Change Request Lifecycle</b> configuration.</p>

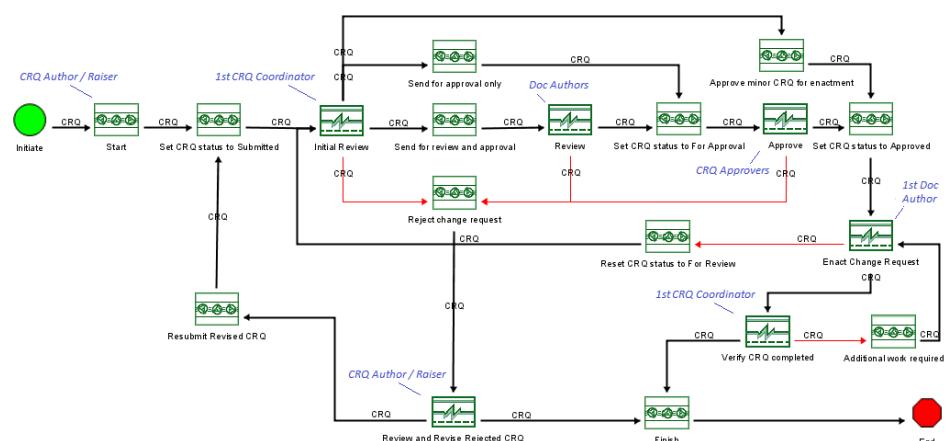
Configuration	Description
<b>Workflow</b>	<p>Defines the review and approval workflow for change requests and documents attached to change requests. Change requests use the AO Change Request Review and Approve Workflow configuration.</p> <p>On the Enact Change Request step of the workflow, the author can optionally create a change notice to route the document changes with the change request for review and approval. When the change notice becomes effective, the system completes the workflow and updates the change request to a Completed state.</p> <p><a href="#">“Lifecycle and Workflow” on page 237</a> provides more information on lifecycles and workflows.</p>
<b>Menu D2</b>	<p>Defines the menu options that appear in OpenText Documentum CM client for asset documents and change requests.</p> <p>The context is preconfigured to use the <b>Asset Document Menu</b> configuration.</p>
<b>Audit</b>	<p>Records the OpenText Documentum CM client events for change requests as they progress through a workflow.</p> <p>The context is preconfigured to use the <b>Auditing of Change Requests</b> configuration.</p>
<b>View configuration</b>	<p>Defines how the system renders change requests and controls access to the rendered change requests.</p> <p>The context is preconfigured to use the <b>AO Change Request C2 View</b> configuration.</p>
<b>Transfer configuration</b>	<p>Synchronizes the mapping between change request properties and their corresponding properties in the Microsoft Word document.</p> <p>The context is preconfigured to use the <b>O2_Change_Request_Template</b> configuration.</p>

## 7.1.2 Lifecycle and Workflow

The following figure illustrates the lifecycle and state transitions for change requests:



The following figure illustrates the workflow configured for change requests:



### 7.1.3 Lifecycle States

The following table describes the change request lifecycle states:

State	Description
<i>init</i>	This new object entry state creates an <b>ao change request</b> relation between the change request and selected document in Effective, Release Pending or Reviewed state.
<i>Draft</i>	New documents and versions are added and prepared by a user who raises a change request.
<i>Submitted</i>	<p>Documents are sent to a document coordinator who assigns the document to a reviewer (for example, the original author) and an approver to validate the change request.</p> <p>The lifecycle pushes the change request document coordinators to each related document so the document coordinator recipient can review all related documents. The lifecycle sets <b>sent_for_approval_date</b> to &lt;\$TODAY&gt;</p>
<i>For Review</i>	<p>Reviewers submit documents for review. The lifecycle pushes the change request document coordinators and approvers to each related document and the reviewers as authors to each related document. This ensures change request members can access all related documents.</p>
<i>For Approval</i>	<p>Approvers submit documents for sign-off. The lifecycle pushes the change request document coordinators and approvers to each related document and the reviewers as authors to each related document. This ensures change request members can access all related documents.</p>
<i>Approved</i>	<p>Approvers have approved the requested changes to the documents. Authors make the changes to the documents. Authors can create a change notice from the change request to route the changed documents for review and approval</p> <p>The lifecycle sets <b>approved_date</b> to 1 \$TODAY</p> <p>and creates a major document version.</p>

State	Description
<i>Completed</i>	The system has processed the changes to the documents and the documents have a major version number. Readers can review the effective version.
<i>Rejected</i>	The document coordinator, reviewer, or approver has rejected the change request.

## 7.1.4 Permissions

The following tables summarize user permissions for change request lifecycle states:

State	Authors (ao_doc_authors)	Document Coordinators (ao_doc_coordinators)	Reviewers (ao_doc_reviewers)	Approvers (ao_doc_approvers)
<i>Draft</i>	DELETE	NONE	NONE	NONE
<i>Submitted</i>	READ	WRITE	NONE	NONE
<i>For Review</i>	READ	READ	RELATE	NONE
<i>For Approval</i>	READ	READ	READ	READ
<i>Approved</i>	READ	READ	READ	READ
<i>Completed</i>	READ	READ	READ	READ
<i>Rejected</i>	DELETE	READ	READ	READ

State	Owner	Readers (ao_doc_readers)	Auditors (ao_doc_auditors)	Default
<i>Draft</i>	DELETE	NONE	NONE	NONE
<i>Submitted</i>	DELETE	NONE	NONE	NONE
<i>For Review</i>	DELETE	NONE	NONE	NONE
<i>For Approval</i>	DELETE	NONE	NONE	NONE
<i>Approved</i>	DELETE	READ	READ	NONE
<i>Completed</i>	READ	READ	READ	NONE
<i>Rejected</i>	DELETE	NONE	NONE	NONE

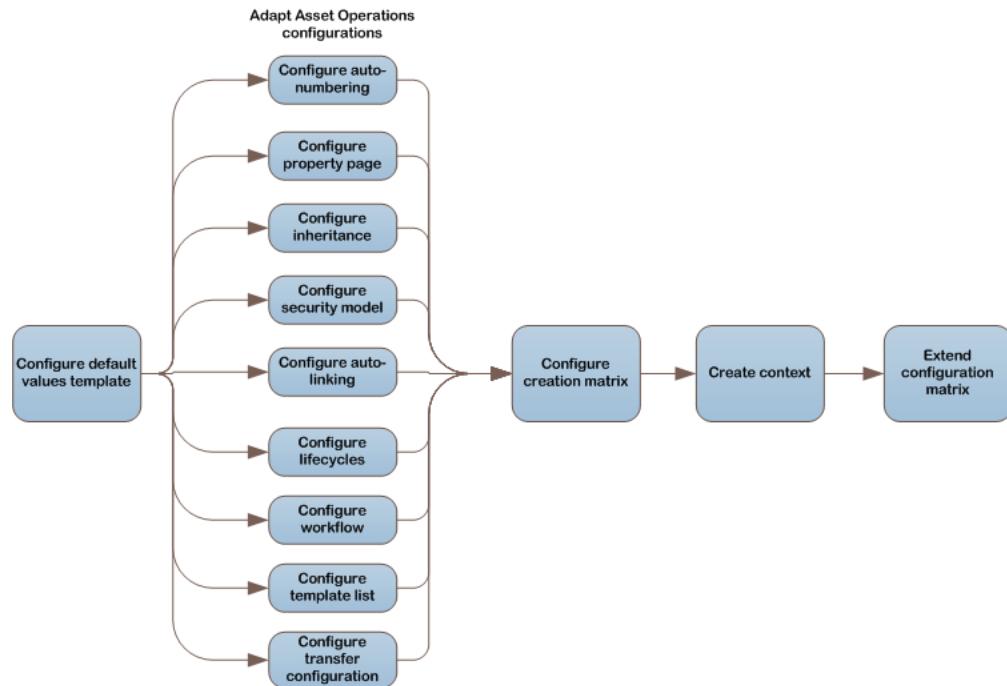
### 7.1.5 Uniqueness Check on Create Change Request

Uniqueness Checks query if a condition is true and provides a warning or error message in a dialog. OpenText Documentum CM for Engineering selects and runs the uniqueness check **Validate ao document attached to CR is not a WC or CP and state has be Review, RP or Effective** for the context **AO Change Request** (`r_object_type = 'ao_change_request'`) in the OpenText Documentum CM client matrix. As a result, the check runs every time authors or readers create a new change request. **Validate ao document attached to CR is not a WC or CP and state has be Review, RP or Effective** checks that the document selected when creating a change request is Effective, Release Pending or Reviewed; and, that the document is not a controlled procedure or working copy.

This uniqueness check avoids creating change requests against documents of the wrong status; or, including working copies or controlled procedures with asset documents (object type `ao_document`) in a management of change process.

### 7.1.6 Enabling Authors to Create Change Requests

The following figure illustrates the process for enabling authors to create change requests:



### 7.1.6.1 Configuring the Default Values Template

OpenText Documentum CM for Engineering uses a default values template to define the default values for change requests that authors create. When you configure a default values template, you create a template from the change request default values template and configure it for your environment.

1. In client configuration, select **Creation > Default values template**.
2. In the **Values templates** list, select **AO Change Request Default Values** and click **Create from**.
3. Update the following property values:
  - **auditors**: Specifies the group whose members can audit change requests (for example, acme\_hydro\_doc\_auditors).
  - **authors**: Identifies the author of the change request.
  - **domain**: Specifies the domain to which the change request belongs (for example, Acme Hydro).
  - **group\_name**: Identifies the group name prefix that the system uses in queries to determine membership to a role (for example, acme\_hydro).
  - **readers**: Specifies the group whose members can read change requests (for example, acme\_hydro).
  - **revisions\_required**: Specifies whether the change request is a standalone change request (value of false) or if the documents associated with the change request require updates (value of true).

[“Change Requests” on page 233](#) provides more information on change request default values.

4. Click **Save**.

### 7.1.6.2 Adapting OpenText Documentum CM for Engineering Configurations

When you create change request configurations, you adapt change request configurations and update them for your environment. Adapting OpenText Documentum CM for Engineering document configurations consists of the following tasks:

### 7.1.6.2.1 Configuring Auto-naming

When you configure auto naming, you create the configuration from the OpenText Documentum CM for Engineering auto naming configuration and update it for your environment. “[Change Requests](#)” on page 233 describes the OpenText Documentum CM for Engineering change request auto naming configuration.

1. In client configuration, select **Go to > Auto naming** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto Namings** list, select **AO Change Request Naming** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, update the default auto naming settings.  
OpenText Documentum CM for Engineering uses the key value of **Change Request Reason Codes** dictionary in the auto-naming.
5. Click **Save**.

### 7.1.6.2.2 Configuring the Property Page

When you configure the property page, you create the configuration from the property page and configure it for your environment. “[Change Requests](#)” on page 233 describes the change request property page configuration.

1. In client configuration, select **Go to > Property page** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Property pages** list, select **AO Change Request Properties** and click **Create from**.
3. Specify a property page name and add your application to the **Applications** list.
4. Expand the **Properties** field set and update the Change Request Summary property configuration.

For example, the Change Request Summary tab has an `ao_reason_code` property that specifies the change request reason codes defined by the **Change Request Reason Codes** dictionary. Select the dictionary that defines the change request reason codes for your application.

5. If necessary, configure the custom properties that you created in “[Creating Object Types](#)” on page 250.
6. Click **Save**.

#### 7.1.6.2.3 Configuring Inheritance

When you configure inheritance for change requests, you create the configuration from the change request inheritance. “[Change Requests](#)” on page 233 describes the inheritance configuration.

1. In client configuration, select **Go to > Inheritance** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Inheritances** list, select **AO Change Request Inheritance** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

#### 7.1.6.2.4 Configuring the Security Model

When you configure the security model configuration for change requests, you create the configuration from the change request security configuration. “[Change Requests](#)” on page 233 describes the security model configuration.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Security templates** list, select **AO Change Request Security Model** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

#### 7.1.6.2.5 Configuring Auto-linking

When you configure auto-linking for change requests, you create the configuration from the change request auto-linking configuration. “[Change Requests](#)” on page 233 describes the auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto links** list, select **AO Change Request Auto Link** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

#### 7.1.6.2.6 Configuring the Lifecycle

When you configure the lifecycle for change requests, you adapt the lifecycle configuration to your environment. “[Change Requests](#)” on page 233 describes change request lifecycles.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Lifecycles** list, select **AO Change Request Lifecycle**.
3. Add your application to the **Applications** list.
4. Click **Save**.

#### 7.1.6.2.7 Configuring the Workflow

When you configure the workflow, you can adapt the change request workflow to your environment.

1. In client configuration, select **Go to > Workflow** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Workflow list**, select **AO Change Request Review and Approve Workflow**.
3. Add your application to the **Applications** list.
4. Click **Save**.

You can use Documentum Process Builder to create custom workflows for your environment. After you create the workflows, you import them into the Documentum Composer project and then install them in the repository.

#### 7.1.6.2.8 Configuring the Template List

When you configure the template list for change requests, you create the configuration from OpenText Documentum CM for Engineering and then update it to include the change request templates for your environment. “[Change Requests](#)” on page 233 provides more information on OpenText Documentum CM for Engineering change request templates.

1. In client configuration, select **Go to > Template list** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Templates** list, select **AO Change Request Template** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Add your change request templates to the **Templates** list.
5. Click **Save**.

#### 7.1.6.2.9 Transfer Configuration

When you configure the mapping between the properties associated with the change request object type and the Microsoft Word document template, you create the configuration from the transfer configuration.

1. In client configuration, select **O2 > Transfer configuration** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Transfer configurations** list, select **O2\_Asset\_Template** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, map custom document type properties to corresponding field properties in the Microsoft Word document.
5. Click **Save**.

#### 7.1.6.3 Configuring the Creation Profile

The asset document creation profile that you created in “[Configuring the Creation Profile](#)” on page 145 also enables authors to create change requests. Update the profile by adding your change request document.

1. In client configuration, select **Creation > Creation profile** and select your application from the application drop-down list.
2. Select the creation profile that you created in “[Configuring the Creation Profile](#)” on page 145.
3. Update the matrix table as follows:
  - a. Remove the default change request document (for example, CR).
  - b. Add a row and select the change request document from the dictionary in the first column.
  - c. Select the change request object type that you created in “[Creating Object Types](#)” on page 250 from the **Type** list box.
  - d. Select the transfer configuration that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 241 from the **O2 config** list box.
  - e. Select the property page that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 241 from the **Property page** list box:
  - f. Select the inheritance that you created in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 241 from the **Inheritance** list box:
  - g. Select the default values template that you created in “[Configuring the Default Values Template](#)” on page 241 from the **Default values template** list box.

- h. Select **AO Change Request Lifecycle** from the **Lifecycle** list box.
4. Click **Save**.

#### 7.1.6.4 Creating the Context

The change request context groups the change request configurations in the client configuration matrix. When you create the change request context, you create the context from the change request context.

1. In client configuration, select **Go to > Context** and Select **Asset Operations Solution** from the application drop-down list.
2. In the **Contexts** list, select **AO Change Request** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Condition** field, update the condition for the domain. For example:  
`domain='Acme Hydro' and r_object_type='ao_change_request'`
5. Click **Save**.

#### 7.1.6.5 Extending the Configuration Matrix

When you extend the configuration matrix for change requests, you enable the change request configurations for the change request context.

1. In client configuration, click **Matrix** and select your application from the application drop-down list.
2. In the column for the change request context that you created in “[Creating the Context](#)” on page 246, enable the configurations that you adapted in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 241.
3. If necessary, drag the context to the left side of the matrix with the other contexts in your application. Client configuration processes contexts from left to right on the matrix.
4. Click **Save**.

To view sample configurations, view the configurations enabled for the **Acme Change Request** context for the Acme Hydro sample configuration.

### 7.1.7 Change Notices

A change notice is a controlled document that records the details of changes that authors make to a set of controlled asset documents. The change notice inherits the security of the asset document in the set that has the most restrictive security (lowest category value). For example, an author creates a change notice to record the changes made to a category 1 asset document and a category 2 asset document. The change notice inherits the category 1 lifecycle and workflow.

OpenText Documentum CM for Engineering defines two relations between change notices, change requests and controlled documents:

- **ao change notice:** relates a parent `ao_change_notice` to child `cd_controlled_doc` objects. All asset documents (type `ao_document`) are children of `cd_controlled_doc`
- **ao cn for cr:** relates a parent change notice to child change request objects. This provides a simple way to route Draft documents revised by an approved change request through a review and approval process.

The OpenText Documentum CM for Engineering **AO Artifacts** creation profile contains a **CN** artifact that enables members of the authors group to create change notices. The creation profile is preconfigured with the following elements:

- Type
- O2 config
- Property page
- Version
- Inheritance
- Default values template
- Lifecycle
- Workflow

The **AO Change Notice Default Values** template provides default values for OpenText Documentum CM for Engineering change notices. The template is preconfigured to provide default values for the following properties:

- **ao\_can\_be\_in\_transmittal:** Specifies if the change notice can be included in a transmittal. By default, OpenText Documentum CM for Engineering does not include change notices in transmittals.
- **authors:** Identifies the author(s) of a change notice. Set to **ao\_doc\_authors**.
- **auditors:** Identifies the auditors of a change notice. Set to **ao\_doc\_auditors**.
- **readers:** Identifies those who can see Effective change notices. Set to the **ao** parent group.
- **domain:** Specifies the domain to which the change notice belongs. Asset Operations uses a value of **AO**.

- **group\_name:** Specifies the prefix that the system uses to define default users or groups for roles that work with change notices. OpenText Documentum CM for Engineering uses a value of **ao**.

The **AO Change Notices** context groups the change notice configurations in OpenText Documentum CM for Engineering. The following table describes the configurations associated with the context:

Configuration	Description
<b>Auto naming</b>	<p>Specifies the following naming convention for change notices:</p> <p>CN &lt;number&gt;-&lt;ao_reason_code&gt;</p> <p>where:</p> <ul style="list-style-type: none"> <li>• &lt;number&gt; is the system-generated number for the change notice</li> <li>• &lt;ao_reason_code&gt; is the dictionary value for the reason why the author created the change notice</li> </ul> <p><b>Change Notice Reason Code</b> dictionary is used in the property page.</p> <p>The context is preconfigured to use the <b>AO Change Notice Naming</b> configuration.</p>
<b>Property page</b>	<p>Defines the layout of change notices and controls the values that authors can enter and select when creating change notices.</p> <p>The context is preconfigured to use the <b>AO Change Notice Properties</b> on creation and <b>AO Change Notice Edit Properties</b> on edit.</p>
<b>Inheritance</b>	<p>Specifies the properties that change notices inherit when authors create change notices.</p> <p>The context is preconfigured to use the <b>AO Change Notice Inheritance</b> configuration.</p>
<b>Auto link</b>	<p>Specifies where OpenText Documentum CM for Engineering stores change notices and defines the security for the folders that contain the change notices. OpenText Documentum CM for Engineering stores the change notices in the following location:</p> <p>&lt;domain&gt;/Change Notices/&lt;ao_reason_code&gt;</p> <p>The context is preconfigured to use the <b>Acme Hydro Change Notice Auto Link</b> configuration.</p>

Configuration	Description
<b>Template list</b>	<p>Defines the change notice templates available to authors when they create change notices.</p> <p>The context is preconfigured to use the <b>AO Change Notice Template</b> configuration.</p>
<b>Lifecycle</b>	<p>Change notices are assigned a lifecycle reflecting the lowest category of related controlled documents. For example, if an author creates a change notice for a category 1 document and category 2 document, the change notice adapts the equivalent category 1 lifecycle.</p> <p>The change notices lifecycles are:</p> <ul style="list-style-type: none"> <li>• AO CN Cat 1 Document Lifecycle</li> <li>• AO CN Cat 2 Document Lifecycle</li> <li>• AO CN Cat 3 Document Lifecycle</li> </ul> <p>The lifecycle state transitions for category 1 through 3 change notices reflect the same as category 1 through 3 documents, respectively.</p> <p>The Change Notice lifecycles automate the promotion of all related documents. The category 1 through 3 review and approval workflows also support the routing of the same category of change notice.</p> <p><a href="#">“Lifecycles and Workflows” on page 105</a> provides more information on controlled document lifecycles.</p> <p>When a change notice becomes effective, the system determines if the change notice was raised by an approved change request. The system then updates the change request status to <b>Completed</b>.</p>
<b>Workflow</b>	<p>The change notice adapts to the most restrictive controlled document and would be a category 1 Change notice if any related document is category 1.</p> <p><a href="#">“Lifecycles and Workflows” on page 105</a> provides more information on controlled document workflows.</p>

Configuration	Description
<b>Menu D2</b>	<p>Defines the menu options that appear in OpenText Documentum CM client for asset documents and change notices.</p> <p>The context is preconfigured to use the <b>Asset Document Menu</b> configuration.</p>
<b>Transfer configuration</b>	<p>Synchronizes the mapping between change notice properties and their corresponding properties in the Microsoft Word document.</p> <p>The context is preconfigured to use the <b>O2_Change_Note_Template</b> configuration.</p>

### 7.1.8 Change Management Dictionaries

OpenText Documentum CM for Engineering uses dictionaries to define the reason codes that authors select when creating change requests and change notices. OpenText Documentum CM for Engineering uses a dictionary to define the categories that authors select when creating change notices.

The **Change Request Reason Codes** dictionary defines the change request reason codes and the **Change Notice Reason Codes** dictionary defines the change notice reason codes. The **Change Notice Categories** dictionary defines the change notice categories.

## 7.2 Creating Object Types

OpenText Documentum CM for Engineering uses the base `ao_change_request` object type to generate instances of change requests and the base `ao_change_notice` object type to generate instances of change notices. If your application requires additional object type properties (for example, to integrate with other systems), you can create object types that extend `ao_change_request` and `ao_change_notice` and add properties to the new object types.

1. In Documentum Composer, create a type that uses `ao_change_request` as the super type.  
The new type inherits the properties of `ao_change_request`. To avoid object type conflicts, do not use the `ao` prefix when you name the new object type.
2. If necessary, add custom properties to the new change request type.
3. Create a type that uses `ao_change_notice` as the super type.  
The new type inherits the properties of `ao_change_notice`.
4. If necessary, add custom properties to the new change notice type.
5. Package and install the types in the repository.

For more information about creating and installing types, see *Documentum Composer Online Help*.

## 7.3 Configuring Change Management Dictionaries

Configuring change management dictionaries consists of the following tasks:

### 7.3.1 Configuring a Dictionary for Change Request Reason Codes

When you configure a dictionary for change request reason codes, you create the dictionary from the OpenText Documentum CM for Engineering change request reason code dictionary. “[Change Management Dictionaries](#)” on page 250 provides more information on change management dictionaries.

1. In client configuration, select **Data > Dictionary**.
2. In the **Dictionaries** list, select **Change Request Reason Codes** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Languages** tab, update the default reason codes with the reason codes for your environment.
5. Click **Save**.

### 7.3.2 Configuring a Dictionary for Change Notice Categories

When you configure a dictionary for change notice categories, you create the dictionary from the OpenText Documentum CM for Engineering change notice category dictionary. “[Change Management Dictionaries](#)” on page 250 provides more information.

1. In client configuration, select **Data > Dictionary**.
2. In the **Dictionaries** list, select **Change Notice Categories** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Languages** tab, update the default categories with the categories for your environment.
5. Click **Save**.

### 7.3.3 Creating a Dictionary for Change Notice Reason Codes

When you configure a dictionary for change notice reason codes, you create the dictionary from the change notice reason code dictionary. [“Change Management Dictionaries” on page 250](#) provides more information on change management dictionaries

1. In client configuration, select **Data > Dictionary**.
2. In the **Dictionaries** list, select **Change Notice Reason Codes** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Languages** tab, update the default reason codes with the reason codes for your environment.
5. Click **Save**.

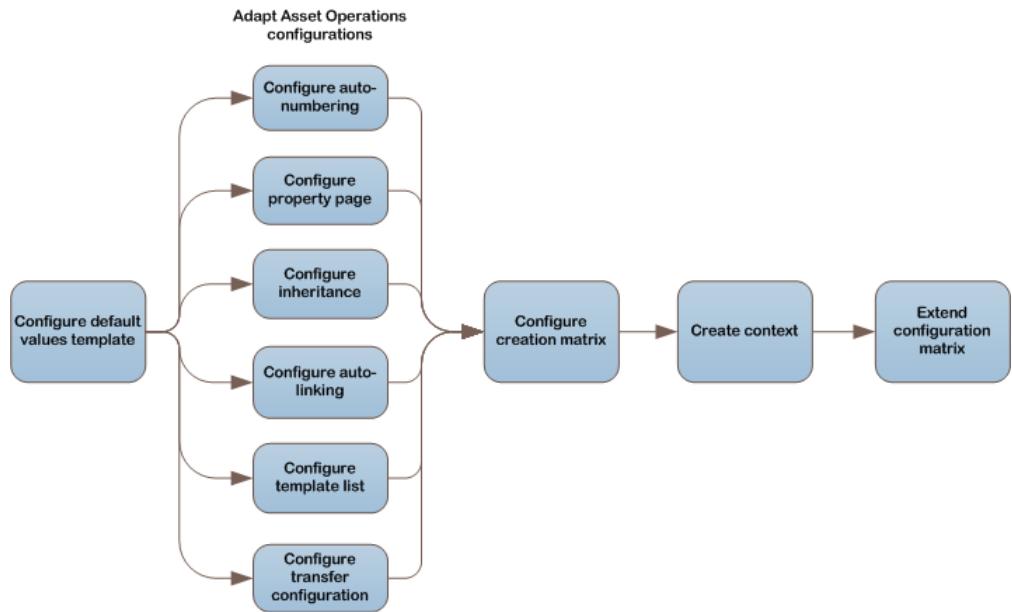
## 7.4 Uniqueness Check on Create Change Notice

Uniqueness Checks query if a condition is true and provides a warning or error message in a dialog. OpenText Documentum CM for Engineering selects and runs the uniqueness check **Validate ao document attached to CN is not a WC or CP and state has to be in Draft** for the context **AO Change Notice** (`r_object_type = 'ao_change_notice'`) in the OpenText Documentum CM client matrix. As a result, the check runs every time authors create a new change notice. **Validate ao document attached to CN is not a WC or CP and state has to be Draft** checks that the document selected when creating a change notice is Draft; and, that the document is not a controlled procedure or working copy.

This uniqueness check avoids creating change notices against documents of the wrong status; or, including working copies or controlled procedures with asset documents (object type `ao_document`) in a management of change process.

## 7.5 Enabling Authors to Create Change Notices

The following figure illustrates the process for enabling authors to create change notices:



### 7.5.1 Configuring the Default Values Template

OpenText Documentum CM for Engineering uses a default values template to define the default values for change notices. When you configure a default values template, you create a template from the OpenText Documentum CM for Engineering change notice default values template and configure it for your environment.

1. In client configuration, select **Creation > Default values template**.
2. In the **Values templates** list, select **AO Change Notice Default Values** and click **Create from**.
3. Update the following property values:
  - **ao\_can\_be\_in\_transmittal**: Specifies if the change notice can be included in a transmittal. By default, OpenText Documentum CM for Engineering does not include change notices in transmittals.
  - **authors**: Specifies the author of the change notice.
  - **auditors**: Identifies the auditors of a change notice.
  - **readers**: Identifies those who can see Effective change notices.
  - **domain**: Specifies the domain to which the change notice belongs (for example, Acme Hydro).
  - **group\_name**: Specifies the prefix that the system uses to define default users or groups for roles that work with change notices (for example, acme\_hydro).

[“Change Notices” on page 247](#) provides more information on change notice default values.

4. Click **Save**.

## 7.5.2 Adapting OpenText Documentum CM for Engineering Configurations

When you create change request configurations, you adapt OpenText Documentum CM for Engineering change request configurations and update them for your environment. Adapting OpenText Documentum CM for Engineering document configurations consists of the following tasks:

### 7.5.2.1 Configuring Auto-naming

When you configure auto naming, you create the configuration from the OpenText Documentum CM for Engineering auto naming configuration and update it for your environment. “[Change Notices](#)” on page 247 describes the OpenText Documentum CM for Engineering change notice auto naming configuration.

1. In client configuration, select **Go to > Auto naming** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto Namings** list, select **AO Change Notice Naming** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, update the default auto naming settings.
5. Click **Save**.

### 7.5.2.2 Configuring the Property Page

When you configure the property page, you create the configuration from the property page and configure it for your environment. “[Change Notices](#)” on page 247 describes the property page configuration.

1. In client configuration, select **Go to > Property page** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Property pages** list, select **AO Change Notice Properties** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, expand the **Properties** folder and update the property configuration as described in the following table:

Folder	Properties	Description
Classification	ao_reason_code	Specifies the change notice reason codes defined by the Acme Change Notice Reason Codes dictionary. Select the dictionary that defines the change notice reason codes for your application.
Process Info	category	Specifies the categories of change notices defined in the Change Notice Categories dictionary. Select the dictionary that defines the change notice categories for your application.

5. If necessary, configure the custom properties that you created in “[Creating Object Types](#)” on page 250.
6. Click **Save**.

### 7.5.2.3 Configuring Inheritance

When you configure inheritance for change notices, you create the configuration from the change notice inheritance. “[Change Notices](#)” on page 247 describes the inheritance configuration.

1. In client configuration, select **Go to > Inheritance** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Inheritances** list, select **AO Change Notice Inheritance** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

### 7.5.2.4 Configuring Auto-linking

When you configure auto-linking for change notices, you create the configuration from the change notice auto-linking configuration. “[Change Notices](#)” on page 247 describes the auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Auto links** list, select **AO Change Notice Auto Link** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.

4. Click **Save**.

### 7.5.2.5 Configuring the Template List

When you configure the template list for change notices, you create the configuration from OpenText Documentum CM for Engineering and then update it to include the change notice templates for your environment. “[Change Notices](#)” on page 247 provides more information on OpenText Documentum CM for Engineering change notice templates.

1. In client configuration, select **Go to > Template list** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Templates** list, select **AO Change Notice Template** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Add your change notice templates to the **Templates** list.
5. Click **Save**.

### 7.5.2.6 Transfer Configuration

When you configure the mapping between the properties associated with the change notice object type and the Microsoft Word document template, you create the configuration from the transfer configuration. “[Change Notices](#)” on page 247 provides more information on OpenText Documentum CM for Engineering change notice transfer configurations.

1. In client configuration, select **O2 > Transfer configuration** and select **Asset Operations Solution** from the application drop-down list.
2. In the **Transfer configurations** list, select **O2\_Asset\_Template** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, map custom document type properties to corresponding field properties in the Microsoft Word document.
5. Click **Save**.

### 7.5.3 Configuring the Creation Profile

The asset document creation profile that you created in “Configuring the Creation Profile” on page 145 also enables authors to create change notices. Update the profile by adding your change notice document.

1. In client configuration, select **Creation > Creation profile** and select your application from the application drop-down list.
2. Select the creation profile that you created in “Configuring the Creation Profile” on page 145.
3. Update the profile table as follows:
  - a. Remove the default OpenText Documentum CM for Engineering change notice document (for example, CN).
  - b. Add a row and select the change notice document from the dictionary in the first column.
  - c. Select the change request object type that you created in “Creating Object Types” on page 250 from the **Type** list box.
  - d. Select the transfer configuration that you created in “Adapting OpenText Documentum CM for Engineering Configurations” on page 254 from the **O2 config** list box.
  - e. Select the property page that you created in “Adapting OpenText Documentum CM for Engineering Configurations” on page 254 from the **Property page** list box.
  - f. Select the inheritance that you created in “Adapting OpenText Documentum CM for Engineering Configurations” on page 254 from the **Inheritance** list box.
  - g. Select the default values template that you created in “Configuring the Default Values Template” on page 253 from the **Default values template** list box.
  - h. Select the appropriate lifecycle from the **Lifecycle** list box.  
Change notices inherit the lifecycle of the most restrictive document associated with the change notice. “Change Notices” on page 247 provides more information on change notices.
4. Click **Save**.

### 7.5.4 Creating the Context

The change notice context groups the change notice configurations in the client configuration matrix. When you create the change notice context, you create the context from the OpenText Documentum CM for Engineering change notice context.

1. In client configuration, select **Go to > Context** and Select **Asset Operations Solution** from the application drop-down list.
2. In the **Contexts** list, select **AO Change Notices** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Condition** field, update the condition for the domain. For example:  
`domain='Acme Hydro' and r_object_type='ao_change_notice'`
5. Click **Save**.

### 7.5.5 Extending the Configuration Matrix

When you extend the configuration matrix for change notices, you enable the change notice configurations for the change notice context.

1. In client configuration, click **Matrix** and select your application from the application drop-down list.
2. In the column for the change notice context that you created in “[Creating the Context](#)” on page 258, enable the configurations that you adapted in “[Adapting OpenText Documentum CM for Engineering Configurations](#)” on page 254.
3. If necessary, drag the context to the left side of the matrix with the other contexts in your application. Client configuration processes contexts from left to right on the matrix.
4. Click **Save**.

## Chapter 8

# Configuring Work Order, Work Order Tasks, and Distribution Lists

Using OpenText Documentum CM for Engineering you can configure Work Order, Work Order tasks, templates, and distribution lists. You can adapt and reuse the configurations to create custom solutions. Each solution requires varying levels of customization.

This chapter contains the following topics:

## 8.1 Configuration Summaries

The following topics describe the default asset document configurations in OpenText Documentum CM for Engineering:

### 8.1.1 Work Order and Work Order Task

OpenText Documentum CM for Engineering provides a work order and work order task to manage planned or unplanned job requests. The work order provides job details and supporting documents of the service to be performed. It can have many tasks. The work order can retain the order attributes, their associated recipients, and referenced documents as templates for reuse.

OpenText Documentum CM for Engineering uses the `ao_wo_task` (sub-type of `ao_document`) object type for a work order task, and `ao_wo_folder` (sub-type of `ao_folder`) for a work order. To distinguish work order tasks from work order task templates, the context must contain the following condition:

`category=0`

Documents are associated with a work order through the `Work order task` relation where the document is the parent and the task object is the child.

The following table summarizes the configurations for a work order task. Each configuration reflects an applicable context that specifies an object type of `ao_wo_task`.

The “[Configuring the Work Order Property Page](#)” on page 270 provides information on descriptions of the object properties.

**Table 8-1: Configurations for Work Order Task**

<b>Configuration</b>	<b>Description</b>
Auto naming	<p>Auto populates the names of documents, folders and other objects created in OpenText Documentum CM for Engineering.</p> <p>The AO WO Task context is preconfigured to use the AO Work Order Task Naming configuration.</p> <p>The AO WO Folder context is preconfigured to use the AO Work Order Naming configuration.</p>
Property Page	<p>Specifies the work order related properties and defines the values that planners can set when creating a work order/task.</p> <p>The AO WO Task context is preconfigured to use the AO WO Edit Property Page configuration.</p> <p>The AO WO Folder context is preconfigured to use the AO Work Order Folder Property Page configuration.</p>
Inheritance	<p>Specifies the inheritance of properties.</p> <p>The AO WO creation profile of type Work Order and Work Order Task are preconfigured to use the AO Work order Inheritance configuration.</p>
Security	<p>Specifies access rights for the work order users.</p> <p>The AO WO Task context is preconfigured to use the AO Work Order Task Security configuration.</p> <p>The AO WO Folder context is preconfigured to use the AO Work Order Folder Security configuration.</p>
Auto Link	<p>Specifies the location where OpenText Documentum CM for Engineering stores the work order and task.</p> <p>The AO WO Task context is preconfigured to use the AO Work Order Task configuration.</p> <p>The AO WO Folder context is preconfigured to use the AO Work Order Folder Link configuration.</p>

Configuration	Description
Lifecycle	Defines the lifecycle of a work order task. The AO WO Task context is preconfigured to use the AO Work Order Task Lifecycle configuration.
Audit	Specifies the events that are audited. The AO WO Task context is preconfigured to use the Auditing for AO Work Order configuration.

## 8.1.2 Work Order Task Templates

The Work Order Task templates are reusable templates from which users can create the work order task instances. OpenText Documentum CM for Engineering enables users in the `ao_wo_managers` role to create the work order task templates. The base type for the work order task templates is `ao_wo_task`, the same type that is used for a work order. To distinguish a work order task from templates, the template context must contain the following condition:

```
category = -1
```

The following table summarizes the configurations for the work order task templates. Each configuration reflects an applicable context that specifies an object type of `ao_wo_task`. The “[Configuring the Work Order Property Page](#)” on page 270 section provides the descriptions of the object properties.

**Table 8-2: Work Order Task Template Configuration**

Configuration	Description
Property Page	Specifies the work order related properties and defines the values that planners can set when creating a work order/task. The AO WO Task Templates context is preconfigured to use the AO WO Task Template Property Page configuration.
Inheritance	Specifies the inheritance of properties. The AO WO Templates creation profile of type Work Order Task Templates is preconfigured to use the AO Work order Inheritance configuration.

Configuration	Description
Security	Specifies the access rights for the work order users.  The AO WO Task Templates context is preconfigured to use the AO Work Order Template Security Templates configuration.
Auto Link	Specifies the location where OpenText Documentum CM for Engineering stores work orders and tasks.  The AO WO Task Template context is preconfigured to use the AO Work Order Task Template configuration.
Lifecycle	Defines the lifecycle of a work order task.  The AO WO Task Template context is preconfigured to use the AO Work Order Task Template Lifecycle configuration.
Audit	Specifies the events that are audited.  The AO WO Task Template context is preconfigured to use Auditing AO Work Order configuration.

### 8.1.3 Distribution Lists

The Distribution lists define the recipients list for a work order task. A distribution list can be reused across different work order tasks and task templates. The base type for distribution lists is `ao_distribution_list`. To distinguish the distribution list uses in Transmittal from the Distribution list, the context must contain the following condition:

```
subject='wo'
```

The following table summarizes the configurations for the AO WO distribution lists. Each configuration reflects an applicable context that specifies an object type of `ao_distribution_list`. The “[ao\\_distribution\\_list properties](#)” on page 272 provides the descriptions for the object properties.

**Table 8-3: Distribution Lists Configuration**

<b>Configuration</b>	<b>Description</b>
Property Page	<p>Specifies the work order related properties and defines the values that planners can set when creating a work order/task.</p> <p>The AO WO Distribution Lists context is preconfigured to use the AO WO Distribution Lists Template Properties configuration.</p>
Inheritance	<p>Specifies the inheritance of properties.</p> <p>The AO WO Distribution Lists context is preconfigured to use the AO Distribution List Inheritance configuration.</p>
Security	<p>Specifies the access rights for the work order users.</p> <p>The AO WO Distribution Lists context is preconfigured to use the AO Distribution Lists Security configuration.</p>
Auto Link	<p>Specifies the location where OpenText Documentum CM for Engineering stores work orders and tasks.</p> <p>The AO WO Distribution Lists context is preconfigured to use the AO WO Distribution Lists configuration.</p>
Lifecycle	<p>Defines the lifecycle of a work order task.</p> <p>The AO Distribution Lists context is preconfigured to use the AO Distribution Lists Lifecycle configuration.</p>
Audit	<p>Specifies the events that are audited.</p> <p>The AO WO Distribution Lists context is preconfigured to use the Auditing Distribution Lists configuration.</p>

### 8.1.4 Work Order Task Lifecycle States

A Lifecycle controls the delivery process of a Work Order Task. The base lifecycle is AO Work Order Task Lifecycle. The following table describes the lifecycle states for AO Work Order Task Lifecycle.

**Table 8-4: Work Order Task Lifecycle States**

State	Description
Being Prepared	<p>The Work Order Task is in preparation and is not available to consumers. The newly created tasks are given this state. Only planners have access to the Work Order Tasks in this state.</p> <p>When a task enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• The Work Order task receives the default configurations</li> <li>• The status is set to <b>Being Prepared</b></li> <li>• The current user is defined as the <b>author</b> of the Work Order Task.</li> <li>• The <b>ao_wo_auditors</b> groups are defined as the auditors of the Work Order Task.</li> <li>• OpenText Documentum CM for Engineering sets the default coversheet template for the Work Order Task.</li> <li>• The system sets the default values to the Recipient status.</li> <li>• The system inherits properties defined by the inheritance configuration.</li> <li>• The system replicates the document relations from the source object to the new object being created.</li> </ul> <p>When in this state, a user can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Attach to WO Task (menu action):</b> Enables a user to attach documents to a Work Order Task.</li> <li>• <b>Prepare Distribution List:</b> Enables user to define the recipient names and the delivery method.</li> <li>• <b>Associate Coversheet:</b> Enables a user to choose a coversheet template from a list of available templates.</li> <li>• <b>Generate Coversheet:</b> Generates a work instruction coversheet from the selected template and adds a coversheet to the Work Order Task as content.</li> <li>• <b>Apply Distribution List Template:</b> Enables a user to copy the recipient names and the delivery method from an existing distribution list.</li> </ul>

State	Description
Advanced Properties	Display the Advanced Properties page showing the standard properties and access roles. This is available only for a session user who has the write access to the document.

### 8.1.5 Work Order Task Template Lifecycle States

A lifecycle controls the approval process of a Work Order Task Template. The lifecycle is AO Work Order Task Templates Lifecycle.

The following table describes the lifecycle states for AO Work Order Task Templates Lifecycle.

**Table 8-5: Work Order Task Template Lifecycle States**

State	Description
Init	<p>The state of a newly created Work Order Task Template. In this state the system defines the following:</p> <ul style="list-style-type: none"><li>• The Work Order Task receives the default configurations.</li><li>• The status is set to <b>Being Prepared</b>.</li><li>• The current user is defined as form_managers for the Work Order Task template.</li><li>• The auditors group added as auditors for Work Order Task template.</li><li>• The system sets the default coversheet template.</li><li>• The system sets the default value to the Recipient status.</li><li>• The system inherits the properties defined by the inheritance configuration.</li><li>• The system replicates the document relations from the source object to the new object being created.</li></ul>

State	Description
Being Prepared	<p>The Work Order Task template is in preparation and is not available to <b>Form Users</b>. Only <b>Form Managers</b> have access to the templates in this state.</p> <p>Work Order Task templates are moved to this state by the following actions:</p> <ul style="list-style-type: none"> <li>When a new Work Order Task template is created.</li> <li>When a Work Order Task template is effective and the users chooses the <b>Edit</b> action.</li> </ul> <p>When in this state, the user can use the following features:</p> <ul style="list-style-type: none"> <li><b>Prepare Distribution List:</b> Enables a user to define recipient names and the delivery method.</li> <li><b>Associate Coversheet:</b> Enables a user to choose a coversheet template from a list of available templates.</li> <li><b>Generate Coversheet:</b> Generates a coversheet from the selected template and adds coversheet to transmittal as content</li> <li><b>Apply Distribution List Template:</b> Enables a user to copy the recipient names and the delivery method from an existing distribution list.</li> </ul>
Effective	<p>The Transmittal template is approved for use by all Form Users. To ensure that the template is available for preview, the system generates a coversheet and creates a PDF rendition.</p> <p>Templates are moved to this state from <b>Being Prepared</b> through the <b>Make Effective</b> action.</p>
Inactive	<p>The Transmittal template can no longer be used. Templates are moved to this state from <b>Effective</b> state through the <b>Make Inactive</b> action.</p>

## 8.1.6 Distribution List Lifecycle States

A lifecycle controls the approval process of a distribution list. The lifecycle is **AO Distribution List Lifecycle**.

The following table describes the lifecycle states for AO Distribution List Lifecycle:

**Table 8-6: Distribution List Lifecycle States**

State	Description
Being Prepared	<p>The distribution list is in preparation and is not available to Form Users. Only Form Managers have access to the distribution list in this state.</p> <p>The distribution lists are moved to this state by the following actions:</p> <ul style="list-style-type: none"><li>• When a new distribution list is created</li><li>• When a distribution list is published and users choose the <b>Edit Distribution List</b> action.</li></ul> <p>When in this state, a user can use the Publish feature to promote the distribution list to Published and then apply security.</p>
Published	<p>The distribution list is published and available for use. When in this state, a user can use the <b>Edit Distribution Lists</b> feature to demote the distribution list to <b>Being Prepared</b> and then apply security.</p>

## 8.1.7 Work Order Task Security Model

The “[Work Order Task Lifecycle States](#)” on page 264 provides descriptions for Work Order Lifecycle document states.

**Table 8-7: Work Order Task Security Model**

<b>State</b>	<b>Document Planners (authors)</b>	<b>Consumers (readers)</b>	<b>Administrators (ao_admins)</b>	<b>Auditors (auditors)</b>	<b>Default (dm_world )</b>	<b>Contributors (contributors)</b>
Being Prepared	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION	NONE	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION	NONE	NONE	RELATE

### 8.1.8 Work Order Task Templates Security Model

The “Work Order Task Template Lifecycle States” on page 266 provides details of the Work order Template Lifecycle document states.

**Table 8-8: Work Order Task Templates Security Model**

<b>State</b>	<b>Form Managers (form_managers)</b>	<b>Form Users (form_users)</b>	<b>Contributors (contributors)</b>
Being Prepared	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION	NONE	RELATE
Inactive	NONE	NONE	RELATE
Effective	READ	READ	RELATE

### 8.1.9 Distribution List Template Security Model

The “Distribution List Lifecycle States” on page 190 provides additional details on the Distribution List Lifecycle document states.

**Table 8-9: Distribution List Template Security Model**

State	Form Managers (form_managers)	Form Users (form_users)	Administrators (ao_admins)
Being Prepared	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION	NONE	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION
Published	READ CHANGE_STATE CHANGE_LOCATION	READ	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION

### 8.1.10 Work Order Folder Security Model

The Work Order folder security model provides the following permissions to the different user groups:

- *Order Planners* (ao\_wo\_planners): WRITE
- *Order Managers* (ao\_wo\_managers): WRITE
- *Consumers* (ao\_wo\_consumers): READ
- *Administrators* (ao\_admins): DELETE
- *Auditors* (ao\_wo\_auditors): READ
- *Default* (dm\_world): NONE
- *Owner* (dm\_owner): DELETE

### 8.1.11 Configuring the Work Order Property Page

1. In client configuration, select **Go to > Property page**.
2. Select **Asset Operations Solutions** from the menu bar.
3. Select **AO WO Properties Page** from the list of property pages.
4. Click **Create from**.
5. Type a property page name. For example, Acme Hydro WO Property Page.
6. Select your application from the **Applications** list.
7. Select the custom object type from the **Document type** list box (for example, acme\_wo\_task).

8. Expand the **Properties** folder and then expand the unlabeled folder.
9. Update the properties as described in the following table and click **Save**:

<b>Tab</b>	<b>Fieldset</b>	<b>Property</b>
Work Order	Work Order detail	Select the following attributes to describe the work order properties: <ul style="list-style-type: none"> <li>• ao_wo_nbr</li> <li>• ao_wo_type</li> <li>• ao_wo_facility</li> <li>• ao_wo_location</li> <li>• ao_wo_prioirty</li> <li>• ao_wo_discipline</li> <li>• ao_project_title</li> <li>• ao_project_number</li> <li>• ao_outage_code</li> <li>• ao_wo_title</li> </ul>
	Task detail	Select the task details describing the work to be performed: <ul style="list-style-type: none"> <li>• ao_wo_ts_nbr</li> <li>• ao_wo_ts_job_type</li> <li>• ao_wo_ts_priority</li> <li>• ao_wo_component</li> <li>• ao_wo_date_due</li> <li>• ao_asset_equipment_number</li> <li>• ao_wo_ts_date_scheduled</li> <li>• ao_wo_ts_notes</li> </ul>
Distribution	Recipients	Select your the recipient type taxonomy for the following recipient properties: <ul style="list-style-type: none"> <li>• ao_rp_type</li> <li>• ao_rp_company</li> <li>• ao_rp_group</li> <li>• ao_rp_name</li> <li>• ao_rp_email</li> <li>• ao_rp_delivery</li> <li>• ao_rp_status</li> </ul>

Tab	Fieldset	Property
Asset Info	Asset	Select the asset type taxonomy and levels for the following properties: <ul style="list-style-type: none"><li>• ao_asset_family_s</li><li>• ao_asset_name_s</li><li>• ao_asset_facility</li><li>• ao_asset_area</li><li>• ao_asset_system</li><li>• ao_asset_subsystem</li></ul> Select the license dictionaries for the following properties: <ul style="list-style-type: none"><li>• ao_license_type_s</li><li>• ao_asset_number_s</li><li>• ao_license_name_s</li></ul>
Projects Info	Project	Select the Program taxonomy for the following properties: <ul style="list-style-type: none"><li>• ao_project_number</li><li>• ao_project_title</li><li>• ao_job_number</li></ul>
Process Info		Select the dictionary for the category property.

### 8.1.12 **ao\_distribution\_list** properties

The distribution list object type is **ao\_distribution\_list**. It contains all the properties of **cd\_controlled\_doc** and the properties listed below.

To see the type details, log in to Documentum Composer and find the type under the project folder in: **Artifacts > Types**.

- **ao\_rp\_name**: Recipient name
- **ao\_rp\_company**: Recipient company
- **ao\_rp\_group**: Recipient group
- **ao\_rp\_delivery**: Recipient delivery
- **ao\_rp\_type**: Recipient type

### 8.1.13 Attribute Expressions for E-mail Templates

You can use the attribute expressions to supply attribute values for the email templates, the email subject line, and root folder dictionary values. The following attribute expressions are supported:

- `$_{attr_name}`: Supplies the name of the attribute.
- `$_{recipientName}`: Supplies the recipient name.
- `$_{recipientEmail}`: Supplies the recipient email.
- `$_{recipientGroup}`: Supplies the recipient group.
- `$_{recipientCompany}`: Supplies the company name.
- `$_{recipientDelivery}`: Supplies the recipient delivery method.
- `$_{errorMessage}`: Supplies the error message that is generated during a delivery failure.
- `$_{d2URL}`: Supplies the URL link to an application if the delivery method is email Link.

The “[Configuring a Coversheet Template](#)” on page 277 provides attribute expressions that are used in coversheets.

## 8.2 Configuring Dictionaries and Taxonomies

The artifact dictionaries define the artifact names that users can select when they create or import content. OpenText Documentum CM for Engineering groups asset documents by content types, registration forms, and asset documents. Configuring artifact dictionaries for asset documents consists of the following tasks:

### 8.2.1 General Work Order Dictionaries

These dictionaries can be updated if your application requires different settings. These settings apply to Work Order in all domains.

- *AO WO Type*: Defines the type of Work Order being created.
- *WO Document Relations*: Defines the types of relationships that can exist between a work order and a document. It contains one value: *Work order task*.
- *AO WO Recipient Type*: Defines the list of available types of recipients. It contains two values: *Internal* (`key=0`) and *External* (`key=1`).

## 8.2.2 Creating Work Order Recipient Dictionaries

The recipient details are contained in the domain-specific dictionaries. For each of the following dictionaries, create a new version for your domain and update it with information about your recipients.

- *AO WO Recipient Companies*: Defines the list of the recipient companies and maps the company names to a short code. The short code is then used in the auto naming of the work order.
- *AO WO Recipient Groups*: Defines the list of groups in the recipient companies.
- *AO WO Recipient Names*: Defines the list of the recipient names.
- *AO WO Recipient Emails*: Defines the list of the recipient email addresses.

For each of the domain-specific dictionaries:

1. In client configuration, select **Data > Dictionary** and select one of the domain-specific dictionaries.
  - **AO WO Recipient Companies**
  - **AO WO Recipient Groups**
  - **AO WO Recipient Names**
  - **AO WO Recipient Emails**
2. Click **Create from**, select your application from the drop-down list on the menu bar, and then type a name replacing AO with your domain name. For example, Acme Hydro Work Order Recipient Companies. You can also create a new dictionary.
3. Click the **Alias** tab.
4. For the Work Order Recipient Companies dictionary:
  - Provide the company name in the **Key** column.
  - Provide a short code in the **Short Code** column for each company in the **Key** column.

You can follow the same steps for the following dictionaries:

- a. For the WO Recipient Groups dictionary, provide a group name for each group in each company.
  - b. For the WO Recipient Names dictionary, provide a name for individual recipients in a company.
  - c. For the WO Recipient Emails dictionary, provide the recipient email address.
5. Click **Save**.

### 8.2.3 Creating the Domain-Specific Recipient Taxonomy

Create a custom Taxonomy for your recipients. The Taxonomy uses values from the following dictionaries:

- WO Recipient Type
- <your\_domain> WO Recipient Companies
- <your\_domain> WO Recipient Groups
- <your\_domain> WO Recipient Names
- <your\_domain> WO Recipient Emails

Add internal Documentum users to the dictionaries and update the taxonomy to have these users configured as internal recipients.

1. In client configuration, select **Data > Taxonomy**, select **Asset Operations Solution** from the **Applications** list, and select **AO WO Recipients** from the **Taxonomies** list.
2. Click **Create from** and type a name for your new taxonomy. You can also create a new dictionary.
3. In the **Used dictionaries** list, select the following dictionaries and click **+** to add them to the taxonomy. Ensure that you add them in the following order:

- WO Recipient Type
- <your\_domain> WO Recipient Companies
- <your\_domain> WO Recipient Groups
- <your\_domain> WO Recipient Names
- <your\_domain> WO Recipient Emails

Remove any other dictionaries from the list by selecting it and clicking **-**.

4. In the **Taxonomy values** list, **0** indicates an internal recipient and **1** represents an external recipient.
5. Add values to the **Taxonomy values** list. You can manually add the values to the taxonomy or import them into OpenText Documentum CM client from a spreadsheet. The *OpenText Documentum CM client online help* provides import information.
  - In the **Taxonomy values** list, click **0** to add an internal recipient or **1** to add an external recipient.
  - Select a company name from the **Dictionary values** list and click **>**.
  - Select the newly added company name in the **Taxonomy values** list.
  - Select a group name from the **Dictionary** values list and click **>**.
  - Select the newly added group name in the **Taxonomy values** list.

- Select a recipient name from the **Dictionary values** list and click >.
  - Select the newly added recipient name in the **Taxonomy values** list.
  - Select the email address for the selected recipient from the **Dictionary values** list and click >.
6. Repeat this process to add all your recipient information to the Taxonomy. For more information about *Configuring a Taxonomy*, see *OpenText™ Documentum™ Content Management Client Configuration Guide*.

### 8.2.4 Creating Asset Program Project Dictionaries and Taxonomies

Create three dictionaries and one taxonomy structure to capture the programs and projects to which your assets belong. The three dictionaries cover your programs, sub-programs, and projects.

1. For all three dictionaries, complete the following steps:
  - In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
  - Select an dictionary to build from. Select **Hydro Programs**, **Hydro Sub-Programs**, or **Hydro Projects**.
  - Click **Create from** and type a name for your new dictionary. For example:
    - <Company Abrrev> Hydro Programs
    - <Company Abrrev> Sub-Programs
    - <Company Abrrev> Projects
    - *Administration group*: Specify your administrator group, for example, **ao\_admins**
    - *Search Dictionary available for the group*: Specify your administrator group, for example, **ao\_admins**.
    - Add a list of your programs, sub-programs, and projects on the **Languages** tab for each dictionary. Use the same value for the Key and English columns. Save your changes.
2. Create your taxonomy as follows:
  - In client configuration, select **Data > Taxonomy**, and select **Asset Operations Solution** from the **Applications** list.
  - Select **Program Project**, click **Create from** and type a name for your new dictionary.
  - In the **Used Dictionaries** list, add the dictionaries you created in the following order:
    - Programs

- Sub-Programs
  - Projects
  - Add the dictionary values to your taxonomy.
3. Click **Save**.

## 8.3 Configuring a Coversheet Template

A Coversheet is a document showcasing details of a Work Order instruction, such as which documents are included and where the Work Order was sent. The default coversheet template is automatically attached to each Work Order. You can create your own coversheet template or use the default coversheet template provided by OpenText Documentum CM for Engineering: **Work Order Coversheet Template.doc**. The default coversheet template is packaged in the AssetManagementFoundation DAR file.

You must create the coversheet in **Microsoft Office Word 2003 XML Format**. When importing the coversheet into Documentum, select **MS-Word 4.0, 5.0** as the format.

If you create a new domain, you must configure the following items to support the coversheets:

- A coversheet template named **AO WO Coversheet Template.doc** must reside in the domain DAR file.
- The **WO Coversheet Template.doc** coversheet must be **Effective**.

When your user creates a coversheet template in OpenText Documentum CM client, they must ensure that they type **Work order type** in the **Applicable Artifacts** box.

Information is added to a coversheet through the use of expressions. Expressions identify an attribute. When the coversheet is generated from the template, the attribute expression is replaced with the values for the current work order. The expressions use the following syntax:

```
1 <prefix>.attribute
```

The prefix identifies the subject of the attribute. OpenText Documentum CM for Engineering supports the following three prefixes:

- **tr.out**: Denotes the work order attributes.
- **d1.d.out**: Denotes the attributes of an attached document.
- **d1.start** and **d1.end**: Identifies the section that contains the attributes related to attached documents.
- **r1.r.out**: Denotes the recipient attributes.
- **r1.start** and **r1.end**: Identifies the section that contains the attributes related to distribution.

The default coversheet uses the attribute expressions to provide the following information:

- `tr.out.object_name`: The Work Order Task number
- `tr.out.ao_to`: The value from the To field
- `tr.out.ao_from`: The value from the From field
- `tr.out.ao_date_sent`: The date the issue was sent
- `tr.out.ao_date_due`: The issue return by date
- `tr.out.ao_issue_reason`: The issue reason
- `tr.out.title`: The title
- `tr.out.ao_notes`: The summary, notes, and instructions.
- `d1.start` and `d1.end`: The section that contains the attributes related to the attached documents

Expressions for all the attached documents must appear between the `d1.start` and `d1.end` tags. OpenText Documentum CM for Engineering supports only one instance of `d1.start` and `d1.end` on a single coversheet.

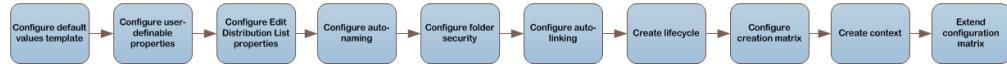
- `d1.end`: The end of the attributes related to the attached documents.
- `d1.d.out.object_name`: The document number of any attached documents.
- `d1.d.out.eif_revision`: The revision number of any attached documents.
- `d1.d.out.title`: The title of any attached documents.
- `d1.d.out.eif_acceptance_code`: The acceptance code for any attached documents.
- `r1.start` and `r1.end`: The section that contains the attributes related to distribution.

Expressions for distribution attributes must appear between the `r1.start` and `r1.end` tags. OpenText Documentum CM for Engineering supports only one instance of `r1.start` and `r1.end` on a single coversheet.

- `r1.r.out.ao_rp_name`: The recipient name
- `r1.r.out.ao_rp_company`: The recipient company
- `r1.r.out.ao_rp_delivery`: The recipient name delivery method

## 8.4 Enabling Planners to Create Work Order and Task

The following figure illustrates the process for enabling planners to create a work order and a task:



This procedure uses the OpenText Documentum CM for Engineering base work order type: `ao_wo_task`, which is described in ["Work Order and Work Order Task" on page 259](#). If your application requires additional properties not included in `ao_wo_task`, create a custom Work Order Task type.

To enable planners to create a work order and a task:

### 8.4.1 Configuring the Default Values Template

Define the default values for the Work Order Task created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Work Order Default Values**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Default Values Template.
3. Configure the following properties and save your changes:
  - **auditors**: Define the user group that can audit the Work Order. The group name must be `<domain_group_prefix>_wo_auditors`.
  - **authors**: Define the user list that can create the Work Order. This must include the current session user represented by `$USER` and the controller group of the domain: `<domain_group_prefix>_wo_planners`.
  - **category**: 0
  - **domain**: Define the domain name. For example: Acme Hydro
  - **group\_name**: Define the group name prefix that is common to all the group names in this domain. This prefix is used for selecting default users or groups for different roles of access.
  - **object\_name**: This must be configured to: Auto Generated.
  - **readers**: Define the user group that can read the Work Order Task. The group name must be `<domain_group_prefix>_wo_consumers`.
  - **ao\_auto\_attach\_relation**: Define the Relation Name that the system will use to manage relationship between work order task and its related document.
  - **ao\_asset\_family\_s**: Define the asset family system will pre-populate on the Work Order Task.

- `ao_asset_name_s`: Define the asset name that the system will pre-populate on the Work order Task.
- `ao_wo_ts_tbr`: This must be configured to: Auto generated. The system will use the auto-naming rule to apply the new task number as the task is created.

## 8.4.2 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a distribution list instance.

1. In client configuration, select **Go to > Property page** and select **AO Distribution List Template Properties**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property Page.
3. For **Document type**, select **ao\_distribution\_list**.
4. In the Structure section, expand the Properties item and then expand the unlabeled folder.
5. Update the properties as described in the following table:

Property	Value	Description
Distribution > Recipient Details > grid	<code>ao_rp_type</code>	<i>Taxonomy</i> : Select the taxonomy you created in “ <a href="#">Creating the Domain-Specific Recipient Taxonomy</a> ” on page 199 <i>Level</i> : Select <b>Transmittal Recipient Type</b> . <i>Next Property</i> : <code>ao_rp_company</code>
	<code>ao_rp_company</code>	<i>Taxonomy</i> : Select the taxonomy you created in “ <a href="#">Creating the Domain-Specific Recipient Taxonomy</a> ” on page 199 <i>Level</i> : Select the “<domain> Transmittal Recipient Companies” dictionary you created in “ <a href="#">Creating the Domain-Specific Recipient Taxonomy</a> ” on page 199 <i>Next Property</i> : <code>ao_rp_group</code>

Property	Value	Description
	<b>ao_rp_group</b>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select the “&lt;domain&gt; Transmittal Recipient Groups” dictionary you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Next Property:</i> ao_rp_name</p>
	<b>ao_rp_name</b>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select the “&lt;domain&gt; Transmittal Recipient Names” dictionary you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Next Property:</i> ao_rp_email</p>
	<b>ao_rp_email</b>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select the “&lt;domain&gt; Transmittal Recipient Emails” dictionary you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p>
	<b>ao_rp_delivery</b>	<p><i>Dictionary:</i> If you create a custom Transmittal Delivery Methods dictionary, select the new dictionary from the list.</p>

6. Click **Save**.

### 8.4.3 Configuring the Prepare Distribution List Properties

The **Prepare Distribution List** function enables your users to choose multiple recipients and delivery methods for a Work Order task or Work Order task template. Configure this property page to define the options and values your users can choose.

1. In client configuration, select **Go to > Property page** and select **AO WO Prepare Recipient List**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Property page.
3. In the **Document type** list box, select **ao\_wo\_task**.
4. In the **Structure** section, expand **Recipient Details** and then expand the unlabeled folder and the **grid**.
5. Update the properties with the values from the taxonomy you created. The “[Creating the Domain-Specific Recipient Taxonomy](#)” on page 275 provides more details about creating the domain specific recipient taxonomy.

Property	Value
ao_rp_type	<i>Taxonomy:</i> Select the taxonomy you created. <i>Level:</i> <domain>Transmittal Recipient Type <i>Next Property:</i> ao_rp_company
ao_rp_company	<i>Taxonomy:</i> Select the taxonomy you created. <i>Level:</i> <domain>Transmittal Recipient Companies. <i>Next Property:</i> ao_rp_group
ao_rp_group	<i>Taxonomy:</i> Select the taxonomy you created. <i>Level:</i> <domain>Transmittal Recipient Groups <i>Next Property:</i> ao_rp_name
ao_rp_name	<i>Taxonomy:</i> Select the taxonomy you created. <i>Level:</i> <domain> Transmittal Recipient Names <i>Next Property:</i> ao_rp_email

Property	Value
ao_rp_email	<p><i>Taxonomy:</i> Select the taxonomy you created.</p> <p><i>Level:</i> &lt;domain&gt; Transmittal Recipient Emails.</p> <p><i>Next Property:</i> Leave blank.</p>
ao_rp_delivery	<i>Dictionary:</i> Transmittal delivery methods.

6. Click **Save**.

#### 8.4.4 Configuring Auto-naming

Configure an auto naming definition to control the naming of your Work Order Task. The Auto Naming function must result in unique names for a Task Number.

1. In client configuration, select **Go to > Auto Naming** and select **AO Work Order Task Naming**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Auto-Naming configuration.
3. Two properties are defined for the Auto Naming template option: **ao\_from** and **ao\_to**.

For both properties:

- Click the property.
- In the Naming section, set **Dictionaries** to <domain> WO Recipient Companies.
- Select **Short Code** in the adjacent drop-down list.

Ensure you perform these steps for both the **ao\_from** and **ao\_to** properties. The Auto Naming can be configured according to your need; the only requirement is that the resulting names are unique.

4. Click **Save**.

#### 8.4.5 Configuring Folder Security

Create a security model for the folder that stores your Work Order and task. The model specifies the permissions for the eligible user groups.

1. In client configuration, select **Go to > Security** and select **AO Work Order Folder Security** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your security template.
3. Ensure that the following Identifiers, Conditions, and Permissions are defined. Remove any additional permissions.

Identifier	Conditions	Permissions
Select the administrator group for the domain. For example, acme_hydro_admins	Default	7–Delete
Select the auditors user group. For example, acme_hydro_wo_auditors	Default	3–Read
Select the consumers user group. For example, acme_hydro_wo_consumers	Default	3–Read
Select the plannners user group. For example, acme_hydro_wo_planners	Default	6–Write
Select the managers user group. For example, acme_hydro_wo_managers	Default	6–Write

4. For the administrator group for your domain (for example: acme\_hydro\_admins), select:
  - Change State
  - Change Owner
  - Change Permit
5. Click **Save**.

#### 8.4.6 Configuring Auto-linking

Create an Auto Link definition to specify a security model for the Work Order folders.

1. In client configuration, select **Go to > Auto link** and select **AO Work Order** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Auto-linking configuration.
3. For the security model on each folder in the **Path** section, specify the security model you created. The “[Work Order Folder Security Model](#)” on page 270 provides more details on the security model.
4. Click **Save**.

### 8.4.7 Creating a Lifecycle

Defining a domain specific lifecycle enables users to define domain specific recipients for the Work Order or Task. When a user selects a Work Order task that is in the **Being Prepared** state, and then chooses **Prepare Distribution List**, lifecycle ensures that the user sees only those recipient details relevant to the domain of the user.

To create a lifecycle for transmittals:

1. In client configuration, select **Go to > Lifecycle**, and select **AO Work Order Task Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your lifecycle.
3. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains (**Prepare Distribution List**) and set the **Dialog box** property to the Property page you created. The “[Configuring the Prepare Distribution List Properties](#)” on page 282. provides more details on the Prepare Distribution Lists properties.
4. Click **Save**.

### 8.4.8 Configuring the Creation Profile

The creation profile defines a user group and one or more document types that the user group can create. It also associates each defined document type with the standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation profile** and select **AO WO**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your creation profile.
3. Configure the following properties:
  - *Label en*: Type a label name in the box (for example, Hydro WO Task).
  - *Users group*: Select the planners user group that can create the Work Order Task. The group name must be: `<domain_group_prefix>_wo_planners`.
4. In the Work Order Task row, select the following values in their respective columns and save your changes:
  - **Type** column: Select **ao\_wo\_task**. This is the base type for the Work Order Task.
  - **O2 config** column: Leave this column blank.

- **Property pages** column: Select the Property page you created. The “Configuring User-Definable Properties” on page 280 provides more details on the use definable properties.
  - **Version** column: Type 0.1
  - **Inheritance** column: Select AO Work order Inheritance. This is the base inheritance definition for the Work Order and task. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template** column: Select the template you created. The “Configuring the Default Values Template” on page 279 provides more details on the default values template.
  - **Lifecycle** column: Select the lifecycle you created. The “Creating a Lifecycle” on page 285 provides more details on the lifecycle.
  - **Workflow** column: Leave this column blank.
5. In the Work Order row, select the following values in their respective columns and save your changes.
- **Type** column: Select ao\_wo\_folder This is the base type for Work Order Task.
  - **O2 config** column: Leave this column blank.
  - **Property pages** column: Select the Property Page you created in “Configuring User-Definable Properties” on page 280.
  - **Version** column: Type 0.1
  - **Inheritance** column: Select AO Work order Inheritance. This is the base inheritance definition for Work Order and task. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template** column: Select the template you created in “Configuring the Default Values Template” on page 279.
  - **Lifecycle** column: Select the lifecycle you created in “Creating a Lifecycle” on page 285.
  - **Workflow** column: Leave this column blank.

#### 8.4.9 Creating the Context

1. In client configuration, select **Go to > Context** and select AO WO Task.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the context.
3. Supply the following values and save your changes:
  - *Selection:* Ensure ao\_wo\_task appears in the list
  - *Condition:* Define the domain condition for your application. For example:

```
category=0 and domain='Acme Hydro'
```

The category condition distinguishes the Work Order Task context from Work Order Task Templates. For the domain condition, specify your domain name.

4. Click **Matrix** to view the context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure that your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO WO task** context.

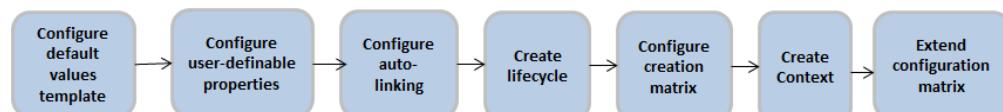
#### 8.4.10 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created. The “[Creating the Context](#)” on page 286 provides more details on the contexts.
2. For this context, make the following selections:
  - *Auto Naming*: Select the Auto Naming definition you created. The “[Configuring Auto-naming](#)” on page 283 provides more details on the auto-naming.
  - *Property Page*: Select the Property page you created. The “[Configuring User-Definable Properties](#)” on page 280 provides more details on the user-definable properties.
  - *Auto Link*: Select the Auto Link definition you created. The “[Configuring Auto-linking](#)” on page 284 provides more details on the auto-linking.
  - *Lifecycle*: Select the Lifecycle you created. The “[Creating a Lifecycle](#)” on page 285 provides more details on creating a lifecycle.
3. Click **Save**.

## 8.5 Enabling Managers to Create a Work Order Task Template

The following figure illustrates the process for enabling managers to create work order task templates:



This procedure uses the OpenText Documentum CM for Engineering base Work Order Task template type: `ao_wo_task`, which is described in [WO Task Templates](#). If your application requires additional properties not included in `ao_wo_task`, create a custom WO Task template type.

To enable managers to create Work Order Task Template, complete the following tasks:

### 8.5.1 Configuring the Default Values Template

You can define the default values for the Work Order Task Template created for your application.

1. In client configuration, select **Creation > Default values template** and select **AO Work Order Default Values**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the default values template.
3. Configure the following properties and save your changes:
  - *auditors*: Define the user group that can audit the Work Order. The group name must be `<domain_group_prefix>_wo_auditors`.
  - *authors*: Define the users that can create Work Order. This must include the current session user represented by `$USER` and the domain controller group: `<domain_group_prefix>_wo_planners`
  - *readers*: Define the user group that can read the Work Order Task. The group name should be `<domain_group_prefix>_wo_consumers`
  - *category*: Type -1.
  - *domain*: Provide your domain name. For example, Acme Hydro.
  - *group\_name*: The group name prefix that is common to all group names in this domain. This prefix is used for selecting default users or groups for different roles of access.
  - *object\_name*: You can configure this option to **Auto Generated**.
  - *ao\_asset\_family\_s*: Define the asset family system that will pre-populate on Work Order Task.
  - Define the users that can create the template. This should include current session user represented by `$USER` and the domain's controller group: `<domain_group_prefix>_wo_managers`.
  - *form\_users*: Define the users that can use the template once it is in Effective. This should include `<domain_group_prefix>_wo_planners`.

### 8.5.2 Configuring the User-Definable Properties

1. In client configuration, select **Go to > Property page**.
2. Select **Asset Operations Solution** from the menu bar.
3. Select **AO WO Template Properties Page** from the list of property pages.
4. Click **Create from**.
5. Type a Property page name (for example, Acme Hydro WO Template Property Page).
6. Select the application from the **Applications** list.

7. Select the custom object type from the **Document type** list box (for example, *acme\_wo\_task*).
8. Expand the **Properties** folder and then expand the unlabeled folder.
9. Update the properties as described in the following table and click **Save**:

Tab	Fieldset	Property
Work Order	Work Order detail	<p>Select the following attributes to describe the work order properties:</p> <ul style="list-style-type: none"> <li>• ao_wo_nbr</li> <li>• ao_wo_type</li> <li>• ao_wo_facility</li> <li>• ao_wo_location</li> <li>• ao_wo_priority</li> <li>• ao_wo_discipline</li> <li>• ao_project_title</li> <li>• ao_project_number</li> <li>• ao_outage_code</li> <li>• ao_wo_title</li> </ul>
Task Detail	<p>Select the task detail that describes the work to be performed:</p> <ul style="list-style-type: none"> <li>• ao_wo_ts_nbr</li> <li>• ao_wo_ts_job_type</li> <li>• ao_wo_ts_priority</li> <li>• ao_wo_component</li> <li>• ao_wo_date_due</li> <li>• ao_asset_equipment_number</li> <li>• ao_wo_ts_date_scheduled</li> <li>• ao_wo_ts_notes</li> </ul>	

Tab	Fieldset	Property
Distribution	Recipients	Select the recipient type taxonomy for the following recipient properties: <ul style="list-style-type: none"><li>• ao_rp_type</li><li>• ao_rp_company</li><li>• ao_rp_group</li><li>• ao_rp_name</li><li>• ao_rp_email</li><li>• ao_rp_delivery</li><li>• ao_rp_status</li></ul>
Asset	Assets	Select the asset type taxonomy and levels for the following properties: <ul style="list-style-type: none"><li>• ao_asset_family_s</li><li>• ao_asset_name_s</li><li>• ao_asset_facility</li><li>• ao_asset_area</li><li>• ao_asset_system</li><li>• ao_asset_subsystem</li></ul> Select the license dictionaries for the following properties: <ul style="list-style-type: none"><li>• ao_license_type_s</li><li>• ao_asset_number_s</li><li>• ao_license_name_s</li></ul>
Projects Info	Project	Select the Program taxonomy for the following properties: <ul style="list-style-type: none"><li>• ao_doc_program_0_s</li><li>• ao_doc_program_1_s</li><li>• ao_job_number</li></ul>
Process Info		Select the dictionary for the category property.

### 8.5.3 Configuring Auto-linking

You can create an Auto Link definition to specify a security model for the Work Order Task template:

1. In client configuration, select **Go To > Auto link** and select **AO Work Order Task Templates** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Auto-linking configuration.
3. For the security model on each folder in the **Path** section, specify the security model you created. The “[Work Order Folder Security Model](#)” on page 270 provides more details on the work order folder security model.
4. Click **Save**.

### 8.5.4 Creating a Lifecycle

Defining a domain specific lifecycle enables users to define domain specific recipients for the Work Order Task Template. When a user selects a Work Order task Template that is in the **Being Prepared** state, and then chooses **Prepare Distribution List**, this lifecycle ensures that the user sees only those recipient details relevant to the domain of the user.

To create a lifecycle for Work Order Task:

1. In client configuration, select **Go to > Lifecycle** and select **AO Work Order Task Template Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your lifecycle.
3. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains (**Prepare Distribution List**) and set the **Dialog box** property to the Property page you created. The “[Configuring the Prepare Distribution List Properties](#)” on page 282 provides more details on the prepare distribution list.
4. Click **Save**.

### 8.5.5 Configuring the Creation Matrix

The *Creation Matrix* defines a user group and one or more document types that the user group can create. It also associates each defined document type with the standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation matrix** and select **AO WO Template**.

2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Creation Matrix.
3. Configure the following properties:
  - **Label en:** Type a label name in the box (for example, Hydro WO Task).
  - **Users group:** Select the planners user group that can create the Work Order Task. The group name must be: `<domain_group_prefix>_wo_managers`.
  - **Skip edit content step checked.** Since **WO Task Template** has no content, the check system can use this option to cut the time showing the dialog box.
4. In the **Work Order Task** row, select the following values in their respective columns and save your changes:
  - **Type** column: Select `ao_wo_task`. This is the base type for work order task.
  - **O2 config** column: Leave this column blank.
  - **Property pages** column: Select the Property page you created. The “Configuring the User-Definable Properties” on page 288 provides more details on the user-definable properties.
  - **Version** column: Type `0.1`.
  - **Inheritance** column: Select **AO Work order Inheritance**. This is the base inheritance definition for Work Order and task. If you created your own inheritance definition, select the custom inheritance definition instead.
  - **Default Values Template** column: Select the template you created. The “Configuring the Default Values Template” on page 288 provides more details on the default values template.
  - **Lifecycle** column: Select the lifecycle you created. The “Creating a Lifecycle” on page 291 provides more details on the lifecycle.
  - **Workflow** column: Leave this column blank.

### 8.5.6 Creating the Context

To create the context:

1. In client configuration, select **Go to > Context** and select **AO WO Task Template**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the context.
3. Provide the following values and save your changes:
  - **Selection:** Ensure `ao_wo_task` appears in the list.
  - **Condition:** Define the domain condition for your application. For example:

Category<0 and domain='Acme Hydro'

The category condition distinguishes the **Work Order Task** context from **Work Order Task Templates**. For the domain condition, specify your domain name.

4. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure that your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO WO task** context.

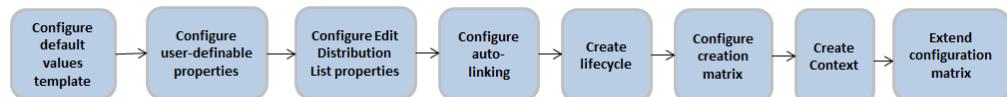
### 8.5.7 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 292
2. For this context, make the following selections:
  - **Auto Naming:** Select the Auto Naming definition you created in “[Configuring Auto-naming](#)” on page 283
  - **Property Page:** Select the Property page you created in “[Configuring the User-Definable Properties](#)” on page 288
  - **Auto Link:** Select the Auto-Link definition you created in “[Configuring Auto-linking](#)” on page 291
  - **Lifecycle:** Select the lifecycle you created in “[Creating a Lifecycle](#)” on page 291
  - Click **Save**.

## 8.6 Enabling Users to Create Distribution Lists

The following figure illustrates the process for enabling users to create distribution lists:



This procedure uses the base distribution list type, **ao\_distribution\_list**. The “[Distribution Lists](#)” on page 184 provides more details on the distribution lists.

To enable users to create distribution lists, you must complete the following tasks:

### 8.6.1 Configuring the Default Values Template

In your application, you must define the default values for the work order distribution lists.

1. In client configuration, select **Creation > Default values template** and select **AO Work Order Distribution List Default Values**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your default values template.
3. You can configure the following properties and then save the changes:
  - *category*: Type 0.
  - *domain*: Specify your domain name.
  - *form\_managers*: Specify the user group that can create the distribution lists. The group must be \$USER.
  - *form\_managers*: Define the user group that can create distribution lists. The group must be *<domain\_group\_prefix>\_wo\_planners*. For example: **acme\_hydro\_wo\_planners**
  - *object\_name*: This must be configured to: **New Distribution List**.
  - *Subject*: Set this to **wo** to indicate a distribution list used in a Work Order. Otherwise, an blank subject will default the distribution list to Transmittal.

### 8.6.2 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a distribution list instance.

1. In client configuration, select **Go to > Property Page** and select **AO Work Order Distribution List Template** Properties.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property page.
3. For Document type, select *ao\_distribution\_list*.
4. In the **Structure** section, expand the **Properties** item and then expand the unlabeled folder.
5. Update the following properties as described in the table:

Tab	Fieldset	Property
Distribution>Recipient Details>grid	<i>ao_rp_type</i>	<p>Taxonomy: Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p>Level: Select <i>WO Recipient Type</i>.</p> <p><i>Next Property:</i> <i>ao_rp_company</i></p>
	<i>ao_rp_company</i>	<p>Taxonomy: Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p>Level: Select the&lt;<i>domain</i>&gt; <i>WO Recipient Companies</i>.</p> <p><i>Next Property:</i> <i>ao_rp_group</i></p>
	<i>ao_rp_group</i>	<p>Taxonomy: Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p>Level: Select the&lt;<i>domain</i>&gt; <i>WO Recipient Name</i>.</p> <p><i>Next Property:</i> <i>ao_rp_email</i></p>
	<i>ao_rp_name</i>	<p>Taxonomy: Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p>Level: Select <i>WO Recipient Type</i>.</p> <p><i>Next Property:</i> <i>ao_rp_company</i></p>
	<i>ao_rp_email</i>	<p>Taxonomy: Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p>Level: Select &lt;<i>domain</i>&gt; <i>WO Recipient Emails</i> dictionary.</p>

Tab	Fieldset	Property
	<i>ao_rp_delivery</i>	<i>Dictionary:</i> If you created a custom WO Delivery Methods dictionary, select the new dictionary from the list.

6. Click **Save**.

### 8.6.3 Configuring the Edit Distribution List Properties

The *Edit Distribution List* function enables the users to choose multiple recipients and delivery methods for a distribution list. Configure this Property page to define the options and values your users can choose.

1. In client configuration, select **Go to > Property page** and select **AO Edit Work Order Distribution List Properties**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Property page.
3. In the **Document type** list box, select *ao\_distribution\_list*.
4. Update the following properties with values you created. The “[Creating the Domain-Specific Recipient Taxonomy](#)” on page 199 provides more details on the domain specific recipient taxonomy.

Property	Value
<i>ao_rp_type</i>	<i>Taxonomy:</i> Select the taxonomy. <i>Level:</i> <domain>WO Recipient Type <i>Next Property:</i> <i>ao_rp_company</i>
<i>ao_rp_company</i>	<i>Taxonomy:</i> Select the taxonomy. <i>Level:</i> <domain>WO Recipient Companies <i>Next Property:</i> <i>ao_rp_group</i>
<i>ao_rp_group</i>	<i>Taxonomy:</i> Select the taxonomy. <i>Level:</i> <domain>WO Recipient Groups <i>Next Property:</i> <i>ao_rp_name</i>
<i>ao_rp_name</i>	<i>Taxonomy:</i> Select the taxonomy. <i>Level:</i> <domain>WO Recipient Names <i>Next Property:</i> <i>ao_rp_email</i>
<i>ao_rp_email</i>	<i>Taxonomy:</i> Select the taxonomy. <i>Level:</i> <domain>WO Recipient Type <i>Next Property:</i> Leave this value as blank.
<i>ao_rp_delivery</i>	<i>Dictionary:</i> WO Delivery Methods.

5. Click **Save**.

## 8.6.4 Configuring Auto-linking

Create an Auto Link definition to specify a security model for your distribution list folders.

1. In client configuration, select **Go to > Auto Link** and select **AO WO Distribution Lists** from the menu bar.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Auto-Linking configuration
3. For the security model on each folder in the **Path** section, specify the security model you created. The “[Configuring Folder Security](#)” on page 283 provides more details on the folder security.
4. Click **Save**.

## 8.6.5 Creating the Lifecycle

Defining a domain specific Lifecycle enables users to define domain specific recipients for the distribution list. When a user selects a distribution list that is in the **Being Prepared** state, and then chooses **Edit Distribution List**, this Lifecycle ensures that the user sees only those recipient details relevant to the domain of the user.

1. In client configuration, select **Go to > Lifecycle** and select **AO Distribution List Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Lifecycle.
3. In the **Lifecycle State** table, select the **Published Start** state.
4. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains **Being Prepared** and set the **Dialog box** property to the Property page you created. The “[Configuring the Edit Distribution List Properties](#)” on page 227 provides more details on the edit distribution list properties.
5. Click **Save**.

## 8.6.6 Configuring the Creation Matrix

The *Creation Matrix* defines a user group and one or more document types that the user group can create. It also associates each defined document type with the standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation profile** and select **AO WO**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Creation Matrix.
3. Configure the following properties:

- *Label en:* Type a label name in the box (for example, Hydro Distribution Templates).
  - **Users group:** Select the authors user group that can create distribution lists. The group name must be:  
`<domain_group_prefix>_wo_planners. For example: acme_hydro_wo_planners`
4. In the **Distribution List** row, select the following values in their respective columns and save your changes:
- *Type* column: Select `ao_distribution_list`. This is the base type for distribution lists.
  - *O2 config* column: Leave this column blank.
  - *Property pages* column: Select the Property page you created. The “Configuring User-Definable Properties” on page 294, provides more details on the user-definable properties.
  - *Version* column: Type 0.1.
  - *Inheritance* column: Select **AO Work Order Inheritance**. This is the base inheritance definition for distribution lists. If you have created your own inheritance definition, select the custom inheritance definition instead.
  - *Default Values Template* column: Select the template you created.
  - *Lifecycle* column: Select the lifecycle you created.
  - *Workflow* column: Leave this column blank.

### 8.6.7 Creating the Context

1. In client configuration, select **Goto > Context** and select **AO Distribution Lists**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for the Context.
3. Provide the following values and then click **Save**.
  - *Selection:* Ensure that `ao_distribution_list` appears in the list.
  - *Condition:* Specify the domain condition for your application for distribution of work orders. For example:  
`domain='Acme Hydro' and subject = 'wo'`
4. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure that your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Distribution Lists** context.

### 8.6.8 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 298
2. Select the following options for this context:
  - *Property Page*: Select the Property page you created. The “[Configuring User-Definable Properties](#)” on page 294 provides more details on the user-definable properties.
  - *Auto Link*: Select the Auto Link definition you created. The “[Configuring Auto-linking](#)” on page 297 provides more details on the auto-linking.
  - *Lifecycle*: Select the Lifecycle you created. The “[Creating the Lifecycle](#)” on page 297 provides more details on the lifecycle.



# Chapter 9

## Supplier Document Schedule

OpenText Documentum CM for Engineering provides the configuration required to enable supplier collaboration through Core Collaboration for Engineering. When you implement the supplier document schedule functionality, it enables you to manage contract-related deliverables and provides a feedback process through Core Collaboration for Engineering. Based on your business requirements you can adapt to OpenText Documentum CM for Engineering configurations as-is or update them for your implementation. You can use the following sections to configure Supplier Document Schedule in Operations and Active Projects area. This chapter has the following topics:

From Asset Operations 16.6 release onwards, you can attach additional documents to the shared Supplier Document Schedule.

### 9.1 Configuration Summaries

The following topics describe the default Supplier Document Schedule configurations in OpenText Documentum CM for Engineering:

#### 9.1.1 Configuring the Supplier Document Schedule

The OpenText Documentum CM for Engineering Supplier Document Schedule Artifacts creation matrix defines the configurations that enable the authors group to create the Supplier Document Schedule.

Each Supplier Document Schedule is preconfigured with the configurations described in the following table:

Configuration	Description
<i>Type</i>	Specifies the object type for each document created. OpenText Documentum CM for Engineering documents are instances of the ao_sds object type.
<i>Property page</i>	Defines the application pages that authors use to specify and select metadata values when creating documents. All documents use the OpenText Documentum CM for Engineering Supplier Document Schedule Property page.
<i>Version</i>	Specifies the initial version of the document. The initial version for the document is 0.1. After the status is changed to <b>Completed</b> , the version changes to 1.0.

Configuration	Description
<i>Inheritance</i>	Defines the metadata that documents inherit when authors create documents. OpenText Documentum CM for Engineering uses the OpenText Documentum CM for Engineering Supplier Document Schedule inheritance configuration to define inheritance behavior.
<i>Default values template</i>	Specifies the default values of the OpenText Documentum CM for Engineering Supplier Document Schedule template for documents that authors create.
<i>Lifecycle</i>	Identifies the lifecycle and action states that OpenText Documentum CM for Engineering applies to Supplier Document Schedule documents.

## 9.1.2 Configuring Document Inheritance

OpenText Documentum CM for Engineering generates instances of the Supplier Document Schedule from another document. Whenever you configure Supplier Document Schedule documents for your environment, OpenText Documentum CM for Engineering creates an object type that inherits the properties of `ao_document`.

If required, you can integrate with the metadata in other systems by adding custom properties. You can also add custom properties to extend OpenText Documentum CM for Engineering configurations.

OpenText Documentum CM for Engineering configures the classification properties as faceted indexes to automatically group faceted simple search results. Several inherited properties exist as single and repeating properties, supporting multiple and single classifications of an asset document. Single values are recommended for better query response and simpler user interfaces.



**Note:** If you do not want a property to appear in the application, configure the property as a hidden property when you create the object type.

The following table describes the `ao_sds` properties:

Property	Description
<code>ao_asset_corporation</code>	Specifies the top-level organizational classification of documents.
<code>ao_asset_facility</code>	Specifies the facility corresponding to the document.
<code>ao_po_number</code>	Specifies the Purchase Order number corresponding to the document.
<code>ao_project_number</code>	Specifies the Project number corresponding to the document.

Property	Description
ao_project_title	Specifies the Project title corresponding to the document.
ao_supex_name	Specifies the site name for Core Collaboration for Engineering .

### 9.1.3 Configuring the Lifecycle States

A lifecycle controls the delivery process of a transmittal. The base lifecycle is AO Supplier Document Schedule Lifecycle. The following table shows the lifecycle states:

State	Description
Being Prepared	<p>The Supplier Document Schedule is in preparation and is not available to consumers. The newly created Supplier Document Schedule exists in this state. Only <b>authors/doc_coordinators</b> have access to the document in this state.</p> <p>When Supplier Document Schedule enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• Receives default configurations</li> <li>• Status is set to <b>Being Prepared</b></li> <li>• Current user is defined as the <b>author</b> of the Supplier Document Schedule.</li> <li>• System inherits properties defined by inheritance configuration</li> </ul> <p>When Supplier Document Schedule is in the <b>Being Prepared</b> state, you can perform the following features:</p> <ul style="list-style-type: none"> <li>• Attach to Supplier Document Schedule: Enables you to associate the deliverable document in <b>Draft</b> state to Supplier Document Schedule.</li> <li>• Share with Supplier: Promote Supplier Document Schedule to <b>Queued</b> state to be sent to Core Collaboration for Engineering (Enable only when the connector is installed).</li> <li>• Cancelled: Enables you to cancel the Supplier Document Schedule that is no longer valid.</li> </ul>

State	Description
Queued	<p>Supplier Document Schedule has moved from the <b>Being Prepared</b> state and is currently in the process of being sent. The state changes when you click <b>Share with Supplier</b>. Supplier Document Schedule in this state are being processed offline by the system.</p>
Shared	<p>Supplier Document Schedule is sent to the Supplier and undergoes a review in Core Collaboration for Engineering . Supplier Document Schedule remains in this state until all the associated deliverable documents have been reviewed and made effective.</p> <p>Whenever you send a Supplier Document Schedule with an attached document, OpenText Documentum CM for Engineering Connector captures the ao_trigger_date for document and Supplier Document Schedule.</p> <p>After you share an additional document to the same Supplier Document Schedule, OpenText Documentum CM for Engineering Connector captures the ao_triger_date as shared date for the newly added project supplier document schedule.</p>
Invalid	<p>This state occurs when Supplier Document Schedule encounters an error while sending the document to Core Collaboration for Engineering . The error log (log_entry) is captured in the Property page. The authors or administrators of the Supplier Document Schedule receive an error notification.</p> <p>You can select <b>Share with Supplier</b> to resend the document to Core Collaboration for Engineering .</p>
Cancelled	<p>Specifies that the Supplier Document Schedule is not valid. Supplier Document Schedule can be moved to this state from the <b>Being Prepared</b> state.</p>

<b>State</b>	<b>Description</b>
Completed	<p>The Supplier Document Schedule is considered complete when:</p> <ul style="list-style-type: none"> <li>Supplier Document Schedule is completed with the <b>Effective</b> state set to today.</li> <li>Version is incremented to next major version.</li> </ul> <p>All users in the <code>ao_role</code> can read the document in this state.</p> <p>Also, Supplier Document Schedule is queued for a clean-up job to delete all the synced Supplier Document Schedule and associated deliverable documents and transmittals in Core Collaboration for Engineering that are 60 days old.</p>

### 9.1.4 Configuring the Security

The following table describes the permissions for different states:

<b>State</b>	<b>Authors</b>	<b>Approvers</b>	<b>Doc_Coordinators</b>	<b>Reviewers</b>	<b>Readers</b>	<b>Auditors</b>	<b>Contributors</b>	<b>AO_admins</b>
Being Prepared	WRITE	READ	DELETE	RELATE	NONE	NONE	RELATE	DELETE
Queued	READ	NONE	RELATE	RELATE	NONE	NONE	RELATE	DELETE
Shared	READ	RELATE	READ	READ	READ	READ	READ	DELETE
Completed	READ	READ	READ	READ	READ	READ	RELATE	DELETE
Invalid	READ	READ	READ	NONE	NONE	NONE	RELATE	READ
Cancelled	READ	READ	READ	NONE	NONE	NONE	RELATE	READ

### 9.1.5 Configuring Document Auditing

OpenText Documentum CM for Engineering supports auditing Supplier Document Schedule documents to capture and record events related to the

- workflow
- creation
- revision
- destruction
- view
- update
- relate
- lifecycle transition

By default, OpenText Documentum CM for Engineering audits the following properties:

- ao\_po\_number
- ao\_project\_number
- ao\_project\_title
- authors
- doc\_coordinators

### 9.1.6 Configuring the Property Page

OpenText Documentum CM for Engineering provides a multi-tabbed property page for Supplier Document Schedule. Any alteration or addition to the property pages provided must be implemented as a new property page. The table in this procedure identifies some settings that may need updates to the controlled procedure document properties.

1. In client configuration, select **Go to > Property Page > AO Supplier Document Schedule Property Page**
2. Click **Create from**, select your application from the drop-down list on the menu bar, and provide a name for the Property page.
3. If you have created a custom document type in Creating the Object Type, select that type in the **Document type** list box. If you have not created a custom document type, use ao\_sds.
4. In the **Structure** section, expand the **Properties** item, and then expand the unlabeled folder.
5. Update the following properties as follows:

Tab	Fieldset	Property
Project	<i>ao_project_title</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select <i>Project Titles</i>.</p> <p><i>Next Property:</i> <i>ao_project_number</i></p>
	<i>ao_project_number</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select the <i>Project Numbers</i>.</p> <p><i>Next Property:</i> <i>ao_supplier_name</i></p>
Supplier	<i>ao_supplier_name</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select the <i>AO Suppliers Name</i>.</p> <p><i>Next Property:</i> <i>ao_supplier_number</i></p>
	<i>ao_supplier_number</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “Creating the Domain-Specific Recipient Taxonomy” on page 199</p> <p><i>Level:</i> Select the <i>AO Suppliers Number</i>.</p> <p><i>Next Property:</i> <i>ao_rp_group</i></p>

Tab	Fieldset	Property
Supplier Contacts	<i>ao_rp_company</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Companies</i>.</p> <p><i>Next Property:</i> <i>ao_rp_group</i></p>
	<i>ao_rp_group</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Groups</i>.</p> <p><i>Next Property:</i> <i>ao_rp_name</i></p>
	<i>ao_rp_name</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Names</i>.</p> <p><i>Next Property:</i> <i>ao_rp_email</i></p>
	<i>ao_rp_email</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Emails</i>.</p> <p><i>Next Property:</i> <i>ao_asset_family_s</i></p>

Tab	Fieldset	Property
Asset	<i>Asset Scope</i>	<p>Configures the asset classification corresponding to the following documents:</p> <ul style="list-style-type: none"> <li>• <i>ao_asset_family_s</i></li> <li>• <i>ao_asset_name_s</i></li> <li>• <i>ao_asset_facility</i></li> <li>• <i>ao_asset_area</i></li> <li>• <i>ao_asset_system</i></li> <li>• <i>ao_asset_subsystem</i></li> </ul> <p>The <b>Asset_System_Subsystem</b> taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.</p>
	<i>Equipment</i>	<p>Family, function, type, and equipment numbers for the controlled procedure. The AO_MajorFunction_Function_Type taxonomy reflects the NORSOK Coding standard for:</p> <ul style="list-style-type: none"> <li>• <i>ao_tag_major_function</i></li> <li>• <i>ao_tag_function</i></li> <li>• <i>ao_tag_type</i></li> </ul> <p>The <i>ao_asset_equipment_number</i> must correspond to a query or list of equipments.</p>
	<i>Program Info</i>	<p>Configures the Program Info values with the following properties:</p> <ul style="list-style-type: none"> <li>• <i>ao_doc_program_0_s</i></li> <li>• <i>ao_doc_program_1_s</i></li> <li>• <i>ao_job_number</i></li> </ul>
	<i>Authors</i>	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_authors.
	<i>Readers</i>	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_readers.

## 9.2 Creating an Object Type

OpenText Documentum CM for Engineering uses the base `ao_sds` object type to generate instances of Supplier Document Schedule. If your application requires additional object type properties (for example, to integrate with other systems), you can create an object type that extends `ao_sds` and adds properties to the new object type.

1. In Documentum Composer, create a document type that uses `ao_document` as the super type.  
The type inherits the properties of `ao_document`. To avoid object type conflicts, do not use the `ao` prefix when you name the new object type.
2. If necessary, add custom properties to the document type.
3. Package and install the types in the repository.

[“Configuring Document Inheritance” on page 302](#) provides more information on `ao_sds` properties. For more information about creating and installing types, see *OpenText Documentum Composer Online Help*.

## 9.3 Configuring Dictionaries

You can configure dictionaries to match your custom setup. The two dictionaries that are installed cover the System Supplier Exchange Config and Core Collaboration for Engineering Connector Notifications and are used with the Core Collaboration for Engineering connector.

### 9.3.1 Configuring the System Supplier Exchange Config Dictionary

This dictionary provides the name of the Core Collaboration for Engineering connection that the connector uses. The key value you enter here must match the Core Collaboration for Engineering connection config file.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the Applications list.
2. Select **System Supplier Exchange Config** dictionaries.
3. Add a new value to the list.
4. Clear the check box next to the Beacon Test Supex Site.
5. Click **Save**.

### 9.3.2 Configuring the Core Collaboration for Engineering Connector Notifications Dictionary

This dictionary provides the notification templates that the connector uses when creating the notification, in case of failure.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the Applications list.
2. Select the **SE Connector Notifications** dictionary.
3. Do not edit the column value under key.
4. Edit the columns under **Failure Subject Template** with a different notification subject, wherever required.
5. Edit the columns under **Failure Content Template** pointing to a different **ao\_content\_template**, wherever required. The value must be the **object\_name** of the content template.
6. Edit the columns under Documents attributes to include attributes that must be included as part of the notification, wherever necessary.
7. Click **Save**.

## 9.4 Configuring Connection and xChange Configuration

The Core Collaboration for Engineering connector uses two configurations, System xChange Config and **ao\_connection\_config**, for maintaining the connection detail and integration attributes mapping.

### 9.4.1 Configuring the **ao\_connection\_config**

This configuration maintains the connection detail needed for the connector to communicate to Core Collaboration for Engineering.



**Note:** Use Documentum Administrator to perform this task.

1. Login as **ao\_admin** role into the Documentum Administrator.
2. Using a public search, execute the AO Configuration file search.
3. Locate the **ao\_connection\_config** and checkout the file.
4. Under the **system\_connection** node, change the default value of Beacon Test Supex Site with the name given to the System Supplier Exchange Config dictionary.
5. Notice under **system\_connection** node, there is a name by default it is set to **Beacon Test Supex Site**. Change the name to match the name given to the System Supplier Exchange Config dictionary.

For example:

```
<system_connection description="Beacon Test Supex Site"  
name="Beacon Test Supex Site">
```

6. Modify the following attributes:
  - URL: Provide the URL of the Core Collaboration for Engineering site.
  - Key\_id: DFC encryption password to connect to the system.
  - Private Key: Private DFC key to connect to the system.
  - Proxy Host: Proxy Host connector that must be used for making a Core Collaboration for Engineering connection.
  - Proxy Port: Proxy Port connector that must be used for making a Core Collaboration for Engineering connection.
7. Click **Save**.

#### 9.4.2 Configuring the System xChange Configuration

This configuration maintains the attribute mapping and rules used by the connector to determine the business logic.

1. Login as **ao\_admin** role into the OpenText Documentum CM client.
2. Using a public search, execute the AO Configuration file search.
3. Double-click to view the System xChange Config.



**Note:** It is not recommended to modify this configuration file without consulting the development team.

### 9.5 Review and Approve Supplier Document Schedule Deliverable Documents

OpenText Documentum CM for Engineering contains the review and approval workflow for Core Collaboration for Engineering.

- “[OpenText Documentum CM for Engineering Supplier Document Review Workflow](#)” on page 313

This workflow routes the returned deliverable document for review. If the document requires updates, comments can be added and the Supplier Document Schedule manager can send the revised document with the comment back to the supplier by using the Send Feedback action.

- “[OpenText Documentum CM for Engineering Supplier Document Approval Workflow](#)” on page 314

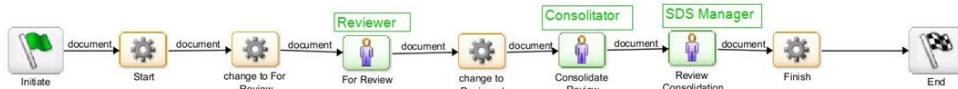
This workflow routes the returned deliverable document for approval (For Cat 1 and CAT 2 only). If document is reviewed without further changes from supplier, it can be sent to the approver for approval and make effective. At the

end of this workflow, the document is promoted to the Effective state when all approvers approve the document. Else, Supplier Document Schedule manager can send the revised document with comments back to the supplier using the Send Feedback action.

 **Note:** Category 3 documents do not follow this workflow. The Supplier Document Schedule manager can use Self-approve right – click action to make the document effective.

### 9.5.1 OpenText Documentum CM for Engineering Supplier Document Review Workflow

The Supplier Document Review workflow is designed to send the return deliverable document from the supplier for review. The following figure illustrates the workflow activities in the Asset Operations Supplier Document Review workflow:



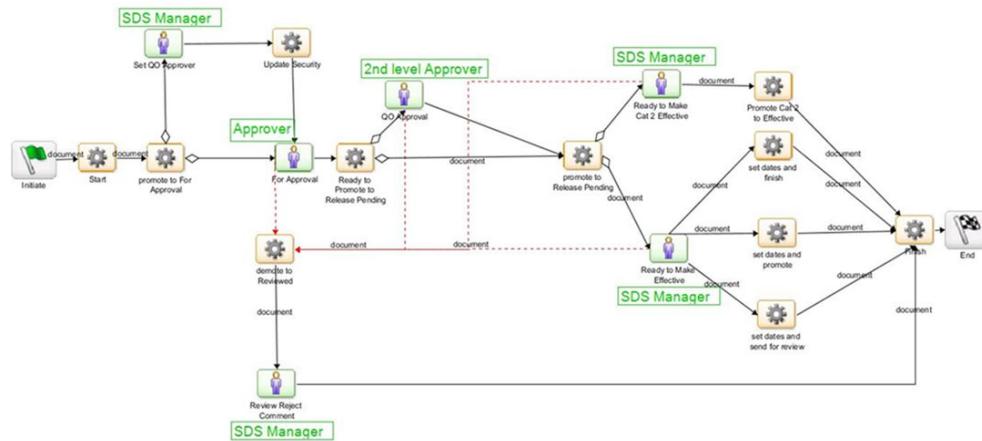
- **Initiate:** Presents the workflow initiator with a read-only summary of workflow participants with a comment to cancel if the participants are incorrect. Levels 1 through 4 approvers are all shown since the configurable visibility is not provided.
- **Start:** Promotes the routed package to the **For Review** state. Depending on the category of the asset\_document, the appropriate AO CAT (1, 2, 3) Lifecycle routes the package to the For Review task.
- **For Review:** Performed by the reviewers members. This state enforces the signoff and acceptance code on the document when being moved to next state. The system is mapped to the Acceptance Codes dictionary of selections. Once all reviewers complete the review, the system will promote the document to the Reviewed state followed by routing the package to the Consolidator Review task.
- **Consolidator Review:** Performed by consolidator members. The user can review and consolidate all the reviewed comments into a final version to send feedback to the supplier. Otherwise, the document is forwarded to the Review Consolidation task.
- **Review Consolidation:** Promotes the routed package to the Supplier Document Schedule manager to review the consolidated document. The package is forwarded to the Finish task.

 **Note:** When Supplier Document Schedule managers complete this workflow, they can either use the **Send Feedback** option to send the revised document

with comments back to the Supplier. Or route the document to the AO Supplier Approval Workflow, if the document is a category 1 or 2 document. Category 3 documents can be self-promoted by the Supplier Document Schedule manager.

### 9.5.2 OpenText Documentum CM for Engineering Supplier Document Approval Workflow

The following workflow is designed to route the return deliverable document from the supplier for approval, after the document has completed the review workflow. The following figure illustrates the workflow activities in the AO Supplier Document Approval Workflow:



- **Initiate:** Presents the workflow initiator with a summary of workflow participants and chances to edit the document.
- **Start:** Transient state
- **Promote to For Approval:** The system promotes the package to **For Approval**. The system also checks if the package is a Category 1 document without `ao_qo_coordinator` specified, and then re route the package to the `Set QO Approval` step where the workflow creator can supply a QO Coordinator. Otherwise, the system will route the package to the approver for movement to the **For Approval** state.
- **Set QO Approver:** The workflow creator must specify a second level approval if the routed package is a category 1 document. After you enter, the system routes the document to the **Update Security**.
- **Update Security:** The system reapplies the security against the routed package to match the newly entered QO Approval membership. Once completed, the system forwards the document to the **For Approval** task.
- **For Approval:** Performed by approvers members. You can approve or reject the routed package. The system enforces signoff and indication on the package when

it is moved forward to the **Ready to Promote to Release Pending** state. On rejection, the package is routed to the **Demote to Reviewed** state.

- **Ready to Promote to Release Pending:** Transient state where the system determines if the routed package requires a second level approval. If the packaged document belongs to category 1, where the second level approval is required, the package is forwarded to QO Approval. Otherwise, the system routes the package to the **Promotes to Release Pending** task.
- **QO Approval:** Performed by `qo_approvals` members. You can approve or reject the routed package. The system enforces signoff and indication to forward the package to the **Promote to Release Pending** task. On being rejected by the system, routes the package to the **Demote to Reviewed** state.
- **Promote to Release Pending:** The system promotes the routed package to the **Release Pending** state. If the packaged document is a category 1 document, the package is forwarded to the **Ready to Make Effective** state and the category 2 package forwarded to the **Ready to Make Cat 2 Effective** state.
- **Ready to Make Effective:** Performed by `doc_coordinator` members. You can approve or reject the routed package. On being forwarded, the system prompts options
  - Set dates and promote
  - Set dates and finish
  - Send package to Set dates
  - Send for review

On being rejected, the system routes the package to the **Demote to Reviewed** state.

- **Set dates and promote:** The system promotes the document to the Effective state immediately. The package is routed to Finished state and completes the workflow.
- **Set dates and finish:** The system promotes the document to the Effective state on a specified date. The package is routed to the routed to the Finished state and completes the workflow.
- **Set dates and send for review:** The system promotes the document accord to the schedule date. In addition, it routes the package to the To-Be-Read recipient for further review. Package is routed to the Finished state and completes the workflow.
- **Ready to Make Cat 2 Effective:** Performed by `doc_coordinator` members. You can approve or reject the routed package. On being forwarded, the system forwards the package to the **Promote Cat 2 to Effective** state. On being rejected, the package is routed to the **Demote to Reviewed** state.
- **Promote Cat 2 to Effective:** The system promotes the document to the Effective state immediately. The package is routed to the Finished state and completes the workflow.

- **Demoted to Reviewed:** The system demotes the routed package to the Reviewed state. It forwards the package to the Supplier Document Schedule manager to review the reject comment.
- **Reviewed reject comment:** Performed by **doc\_coordinator** members. You can review the comment and move the workflow forward to finish the workflow.



**Note:** When this workflow is completed, it will either promote the routed package to the Effective state, or the Supplier Document Schedule manager can either use the **Send Feedback** option to send the revised document with comment back to the Supplier.

### 9.5.3 Configure Workflow for Supplier Document Schedule Deliverables

When you configure the workflow, you can adapt the OpenText Documentum CM for Engineering AO Supplier Document Approval Workflow or AO Supplier Document Review Workflow to your environment.

1. In client configuration, select **Go to > Workflow** and select **Asset Operations Solution** from the application list box.
2. In the Workflow list, select the **AO Supplier Document Review** workflow.
3. Add your application to the Applications list.
4. Click **Save**.

You can use Documentum Process Builder to create custom workflows for your environment. After you create the workflows, import them into the Documentum Composer project and then install them in the repository.

### 9.5.4 Configuring Core Collaboration for Engineering Return Document Target State Dictionary

In previous releases of OpenText Documentum CM for Engineering Connector, the return document state for document was not configurable. Whenever CAT1, CAT2, and CAT3 documents are sent back to OpenText Documentum CM for Engineering from Core Collaboration for Engineering, it was set to **DRAFT** state and for Working Copy Revision the state was changed to **Revised** by default. From Asset Operations 16.6 release onwards, the return state is configured based on the document type. You can configure the same by using Supplier Exchange Return Document Target State dictionary.

### **9.5.5 Completed**

The Supplier Document Schedule contains different documents. Whenever the document status changes to the Effective state, the respective Supplier Document Schedule status changes from Shared to Completed. If a Supplier Document Schedule contains multiple deliverables, then the Supplier Document Schedule status changes to Completed only when all the deliverable status changes to Effective.

After this state, an entry is created in the dmi queue item with status set to completed and the task is deleted.



## Chapter 10

# Project Supplier Document Schedule

OpenText Documentum CM for Engineering provides the configuration required to enable supplier collaboration through Core Collaboration for Engineering. The project supplier document schedule functionality enables you to manage contract-related deliverables and provide a feedback process through Core Collaboration for Engineering. Based on your business requirements, you can adapt to OpenText Documentum CM for Engineering configurations without any changes or update them for your implementation. You can use the following sections to configure Project Supplier Document Schedule in the Active Projects area.

From Asset Operations 16.6 release onwards, you can attach additional documents to the shared Supplier Document Schedule.

## 10.1 Configuration Summaries

This section describes the default Project Supplier Document Schedule configurations in OpenText Documentum CM for Engineering:

### 10.1.1 Configuring the Project Supplier Document Schedule

The OpenText Documentum CM for Engineering Supplier Document Schedule Artifacts creation matrix defines the configurations that enable the authors group to create the Supplier Document Schedule.

Each Project Supplier Document Schedule is preconfigured with the configurations described in the following table:

Configuration	Description
<i>document_type</i>	Specifies the document type for each document created. For example, Project Supplier Document Schedule.
<i>Type</i>	Specifies the object type for each document created. OpenText Documentum CM for Engineering documents are instances of the <i>ao_sds</i> object type.
<i>Property page</i>	Defines the application pages that authors use to specify and select metadata values when creating documents. All documents use the <b>AO Project SDS Property</b> page.
<i>Version</i>	Specifies the initial version of the document. The initial version for the document is 0.1. After the status is changed to <b>Completed</b> , the version changes to 1.0.

Configuration	Description
<i>Inheritance</i>	Defines the metadata that documents inherit when authors create documents. OpenText Documentum CM for Engineering uses the <b>AO Project SDS Inheritance</b> configuration to define inheritance behavior.
<i>Default values template</i>	Specifies the default values of the <b>AO SDS Default Values</b> documents templates that authors create.
<i>Lifecycle</i>	Identifies the lifecycle and action states that <b>AO Project SDS Lifecycle</b> applies to Supplier Document Schedule documents.

### 10.1.2 Configuring the Lifecycle States

A lifecycle controls the delivery process of a transmittal. The base lifecycle is AO Project SDS Lifecycle. The following table shows the lifecycle states for this lifecycle:

State	Description
Being Prepared	<p>The Project Supplier Document Schedule is in preparation and is not available to consumers. The created Project Supplier Document Schedule exists in this state. Only <b>authors</b> and <b>doc_coordinators</b> have access to the document in this state.</p> <p>When the Project Supplier Document Schedule enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• Receives default configurations</li> <li>• Status is set to <b>Being Prepared</b></li> <li>• Current user is defined as the <b>author</b> of the Project Supplier Document Schedule.</li> <li>• System inherits properties defined by the inheritance configuration</li> </ul> <p>When the Project Supplier Document Schedule is in the <b>Being Prepared</b> state, you can perform the following actions:</p> <ul style="list-style-type: none"> <li>• Attach to Project Supplier Document Schedule: Enables you to associate the deliverable document in the <b>Draft</b> state to Supplier Document Schedule.</li> <li>• Share with Supplier: Promotes the Project Supplier Document Schedule to the <b>Queued</b> state to be sent to Core Collaboration for Engineering (Enable only when the connector is installed).</li> <li>• Cancelled: Enables you to cancel the Project Supplier Document Schedule that is no longer valid.</li> </ul>
Queued	<p>The Project Supplier Document Schedule has moved from the <b>Being Prepared</b> state and is currently in the process of being sent. The state changes when you click <b>Share with Supplier</b>. The Project Supplier Document Schedule in this state is processed asynchronously by the system.</p>

State	Description
Shared	<p>The Project Supplier Document Schedule is sent to the Supplier and undergoes a review in Core Collaboration for Engineering. The Project Supplier Document Schedule remains in this state until all the associated deliverable documents are reviewed and made Latest.</p> <p>Whenever you send a Project Supplier Document Schedule with an attached document, the Connector captures the <b>ao_trigger_date</b> for the document and Project Supplier Document Schedule.</p> <p>After you share an additional document to the same Project Supplier Document Schedule, Connector captures the <b>ao_trigger_date</b> as shared date for the added Project Supplier Document Schedule.</p>
Invalid	<p>This state occurs when the Project Supplier Document Schedule encounters an error while sending the document to Core Collaboration for Engineering. The error log (log_entry) is captured in the Property page. The authors or administrators of the Project Supplier Document Schedule receive an error notification.</p> <p>You can select <b>Share with Supplier</b> to resend the document to Core Collaboration for Engineering.</p>
Cancelled	<p>Specifies that the Project Supplier Document Schedule is not valid. Supplier Document Schedule can be moved to this state from the <b>Being Prepared</b> state.</p>

State	Description
Completed	<p>The Project Supplier Document Schedule is considered complete when:</p> <ul style="list-style-type: none"> <li>• The Project Supplier Document Schedule is completed with the <b>Latest</b> state set to today.</li> <li>• The Version is incremented to next major version.</li> </ul> <p>All users in the <code>ao_role</code> can read the document in this state.</p> <p>The Project Supplier Document Schedule is queued for a clean-up job to delete all the synced Supplier Document Schedule and associated deliverable documents and transmittals in Core Collaboration for Engineering that are 60 days old.</p>

### 10.1.3 Configuring the Security

The following table describes the permissions for different states:

State	Authors	Approvers	Doc_Coordinators	Reviewers	Readers	Auditors	Contributors	AO_admins
Being Prepared	WRITE	READ	DELETE	RELATE	NONE	NONE	RELATE	DELETE
Queued	READ	NONE	RELATE	RELATE	NONE	NONE	RELATE	DELETE
Shared	READ	RELATE	READ	READ	READ	READ	READ	DELETE
Completed	READ	READ	READ	READ	READ	READ	RELATE	DELETE
Invalid	READ	READ	READ	NONE	NONE	NONE	RELATE	READ
Cancelled	READ	READ	READ	NONE	NONE	NONE	RELATE	READ

## 10.1.4 Configuring Document Auditing

OpenText Documentum CM for Engineering supports auditing Supplier Document Schedule documents to capture and record events related to the

- workflow
- creation
- revision
- destruction
- view
- update
- relate
- lifecycle transition

By default, OpenText Documentum CM for Engineering audits the following properties:

- ao\_po\_number
- ao\_project\_number
- ao\_project\_title
- authors
- doc\_coordinators

## 10.1.5 Configuring the Property Page

OpenText Documentum CM for Engineering provides a multi-tabbed property page for Project Supplier Document Schedule. Any alteration or addition to the property pages must be implemented as a new property page. The table in this procedure identifies some settings that may need to be updated to the controlled procedure document properties.

1. In client configuration, select **Go to > Property Page > AO Project SDS Property Page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Property page.
3. If you have created a custom document type in Creating the Object Type, select that type in the **Document type** list. If you have not created a custom document type, use `ao_sds`.
4. In the **Structure** section, expand the **Properties** item, and then expand the unlabeled folder.
5. Update the following properties:

Tab	Fieldset	Property
Project	<i>ao_project_title</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select <i>Project Titles</i>.</p> <p><i>Next Property:</i> <i>ao_project_number</i></p>
	<i>ao_project_number</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>Project Numbers</i>.</p> <p><i>Next Property:</i> <i>ao_supplier_name</i></p>
Supplier	<i>ao_supplier_name</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>AO Suppliers Name</i>.</p> <p><i>Next Property:</i> <i>ao_supplier_number</i></p>
	<i>ao_supplier_number</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>AO Suppliers Number</i>.</p> <p><i>Next Property:</i> <i>ao_rp_group</i></p>
Supplier Contacts	<i>ao_rp_company</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Companies</i>.</p> <p><i>Next Property:</i> <i>ao_rp_group</i></p>

Tab	Fieldset	Property
	<i>ao_rp_group</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Groups</i>.</p> <p><i>Next Property:</i> <i>ao_rp_name</i></p>
	<i>ao_rp_name</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Names</i>.</p> <p><i>Next Property:</i> <i>ao_rp_email</i></p>
	<i>ao_rp_email</i>	<p><i>Taxonomy:</i> Select the taxonomy you created in “<a href="#">Creating the Domain-Specific Recipient Taxonomy</a>” on page 199.</p> <p><i>Level:</i> Select the <i>AO Transmittal Recipient Emails</i>.</p> <p><i>Next Property:</i> <i>ao_asset_family_s</i></p>
Asset	<i>Asset Scope</i>	<p>Configures the asset classification corresponding to the following documents:</p> <ul style="list-style-type: none"> <li>• <i>ao_asset_family_s</i></li> <li>• <i>ao_asset_name_s</i></li> <li>• <i>ao_asset_facility</i></li> <li>• <i>ao_asset_area</i></li> <li>• <i>ao_asset_system</i></li> <li>• <i>ao_asset_subsystem</i></li> </ul> <p>The <b>Asset_System_Subsystem</b> taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.</p>

Tab	Fieldset	Property
	<i>Equipment</i>	<p>Family, function, type, and equipment numbers for the controlled procedure. The AO_MajorFunction_Function_Type taxonomy reflects the NORSOK Coding standard for:</p> <ul style="list-style-type: none"> <li>• <i>ao_tag_major_function</i></li> <li>• <i>ao_tag_function</i></li> <li>• <i>ao_tag_type</i></li> </ul> <p>The <i>ao_asset_equipment_number</i> must correspond to a query or list of equipments.</p>
	<i>Program Info</i>	<p>Configures the Program Info values with the following properties:</p> <ul style="list-style-type: none"> <li>• <i>ao_doc_program_0_s</i></li> <li>• <i>ao_doc_program_1_s</i></li> <li>• <i>ao_job_number</i></li> </ul>
	<i>Authors</i>	Mandatory selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_authors.
	<i>Readers</i>	Selection of users and/or groups as specified by a query of the \$value(group_name)_proc_doc_readers.

## 10.2 Creating an Object Type

OpenText Documentum CM for Engineering uses the base *ao\_sds* object type to generate instances of Project Supplier Document Schedule. If your application requires additional object type properties (for example, to integrate with other systems), you can create an object type that extends *ao\_sds* and adds properties to the new object type.

1. In Documentum Composer, create a document type that uses *ao\_document* as the super type.  
The type inherits the properties of *ao\_document*. To avoid object type conflicts, do not use the *ao* prefix when you name the new object type.
2. If necessary, add custom properties to the document type.
3. Package and install the types in the repository.

“Configuring Document Inheritance” on page 302 provides more information on `ao_sds` properties. For more information about creating and installing types, see *OpenText Documentum Composer Online help*.

## 10.3 Configuring Dictionaries

You can configure dictionaries to match your custom setup. The two dictionaries that are installed cover the System Supplier Exchange Config and Core Collaboration for Engineering Connector Notifications and are used with the Core Collaboration for Engineering connector.

### 10.3.1 Configuring the System Supplier Exchange Config Dictionary

This dictionary provides the name of the Core Collaboration for Engineering connection that the connector uses. The key value you enter here must match the Core Collaboration for Engineering connection config file.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
2. Select **System Supplier Exchange Config** dictionaries.
3. Add a new value to the list.
4. Clear the check box next to the **Beacon Test Supex Site**.
5. Click **Save**.

### 10.3.2 Configuring the Core Collaboration for Engineering Connector Notifications Dictionary

This dictionary provides the notification templates that the connector uses when creating the notification, in case of failure.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
2. Select the **SE Connector Notifications** dictionary.
3. Do not edit the column value under **key**.
4. Edit the columns under **Failure Subject Template** with a different notification subject, wherever required.
5. Edit the columns under **Failure Content Template** pointing to a different **ao\_content\_template**, wherever required. The value must be the **object\_name** of the content template.
6. Edit the columns under **Documents** attributes to include attributes that must be included as part of the notification, wherever necessary.
7. Click **Save**.

## 10.4 Configuring Connection and xChange Configuration

The Core Collaboration for Engineering connector uses two configurations, System xChange Config and ao\_connection\_config, for maintaining the connection detail and integration attributes mapping.

### 10.4.1 Configuring the ao\_connection\_config

This configuration maintains the connection detail needed for the connector to communicate to Core Collaboration for Engineering.



**Note:** Use Documentum Administrator to perform this task.

1. Login as **ao\_admin** role into the Documentum Administrator.
2. Using a public search, execute the AO Configuration file search.
3. Locate the **ao\_connection\_config** and check out the file.
4. Under the **system\_connection** node, change the default value of **Beacon Test Supex Site** with the name given to the System Supplier Exchange Config dictionary.
5. Notice under **system\_connection** node, there is a name by default it is set to **Beacon Test Supex Site**. Change the name to match the name given to the System Supplier Exchange Config dictionary.

For example:

```
<system_connection description="Beacon Test Supex Site"  
name="Beacon Test Supex Site">
```

6. Modify the following attributes:
  - URL: Provide the URL of the Core Collaboration for Engineering site.
  - Key\_id: DFC encryption password to connect to the system.
  - Private Key: Private DFC key to connect to the system.
  - Proxy Host: Proxy Host connector that must be used for making a Core Collaboration for Engineering connection.
  - Proxy Port: Proxy Port connector that must be used for making a Core Collaboration for Engineering connection.
7. Click **Save**.

## 10.4.2 Configuring the System xChange Configuration

This configuration maintains the attribute mapping and rules used by the connector to determine the business logic.

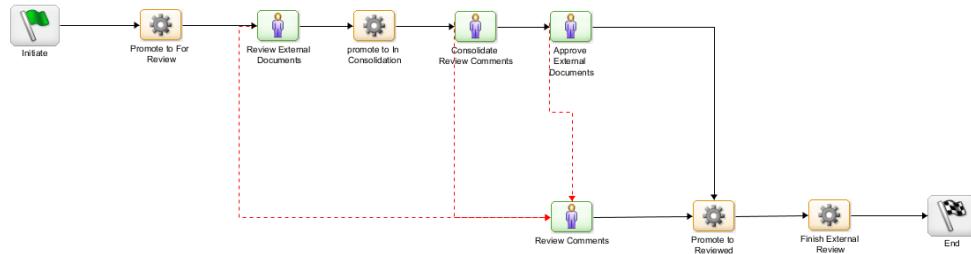
1. Log in as the **ao\_admin** role into the OpenText Documentum CM client.
2. Using a public search, execute the AO Configuration file search.
3. Double-click to view the System xChange Config.



**Note:** It is not recommended that you modify this configuration file without consulting the OpenText My Support ([support.opentext.com](http://support.opentext.com)).

## 10.5 External Projects Document Review Workflow

The External Projects Document Review workflow is designed to send the return deliverable document from the supplier for review. The following figure illustrates the workflow activities in the Review workflow:



The aliased role members performing the external projects document review workflow activities are:

Alias	Category	Description
MP_reviewers	Group	Selected reviewers.
MP_lead_review	User	Selected lead reviewer.
MP_approvers	Group	Selected approvers.

The following table captures the settings of each external projects document review activity:

Activity	Performer	Trigger	Transition
Promote to For Review			When the workflow is started the document is in <b>For Review</b> status.

Activity	Performer	Trigger	Transition
Review External Documents	<p>All users in group (MP_reviewers)</p> <ul style="list-style-type: none"> <li>Work performed by one or more manual performers.</li> <li>Delegate the activity's work to someone else selected with option assign to original performer if auto delegate fails.</li> </ul>	All input flows are selected.	<p>Performer can select up to one next activity.</p> <p>Complete activity when all performers complete the task. If both reject and forward is selected, start only is rejected.</p>
Promote to In Consolidation			When the reviewers complete the task, the document status changes to <b>In Consolidation</b> .
Consolidate Review Comments	<p>(MP_lead_reviewer)</p> <ul style="list-style-type: none"> <li>Work performed by one or more manual performers.</li> <li>Delegate the activity's work to someone else selected with option assign to original performer if auto delegate fails.</li> </ul>	All input flows are selected.	<p>Performer can select up to one next activity.</p> <p>Complete activity when all performers complete the task. If both reject and forward is selected, start only is rejected.</p>
Approve External Comments	<p>All users in group (MP_approvers).</p> <ul style="list-style-type: none"> <li>Work performed by one or more manual performers.</li> <li>Delegate the activity's work to someone else selected with option assign to original performer if auto delegate fails.</li> </ul>	All input flows.	<p>Performer can select up to one next activity.</p> <p>Complete activity when all performers complete the task. If both reject and forward is selected, start only is rejected.</p>

Activity	Performer	Trigger	Transition
Review Comments	Workflow supervisor <ul style="list-style-type: none"> <li>• Work performed by one or more manual performers.</li> <li>• Delegation is not enabled.</li> <li>• Repeat activity is not enabled.</li> </ul>	1 out of 3 possible flows selected.	Select all connected activities.
Promote to Reviewed			After Consolidation process, the status changes to <b>Reviewed</b> state.
Finish External Review	Workflow supervisor for dm_noop_auto_method.	1 out of 2 possible input flows.	All connected activities.

The performer dialog displays when commencing the P-V-A workflow and has the following settings to select valid performers:

Label	Participant	Default	Linked Attribute	Row Numbers
Reviewers	MP_reviewers	\$value(ao_wf_reviewers)	ao_wf_reviewers	6
Selection query: select reviewers from ao_project_configuration where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc				
Lead Reviewer	MP_lead_review	\$value(consolidators)	consolidators	NA

Label	Participant	Default	Linked Attribute	Row Numbers
Selection query: select distinct reviewers from ao_project_config where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc				
Approvers	MP_approvers	\$value(ao_wf_approvers)	ao_wf_approvers	6
Selection query: select approvers from ao_project_config where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc				

This configuration for workflow participants has the following advantages:

- The ao\_wf linked attribute displays the prior selected members by default. No additional changes required for re-routing to the same members.
- The previously selected performers are retained on each document.

The selection query for selectable participants queries the defined project members of the corresponding project configuration. As a result, when project members are changed, the new members are immediately selectable in all project document review and approval workflows.

### 10.5.1 Configuring Core Collaboration for Engineering Return Document Target State Dictionary

In the prior releases of Connector, the return document state for document was not configurable. Whenever CAT1, CAT2, and CAT3 documents are sent back to OpenText Documentum CM for Engineering from Core Collaboration for Engineering, it was set in the **DRAFT** state and for the Working Copy Revision, the state changed to **Revised** by default. In Asset Operations 16.6, the return state is configured based on the document type. You can configure the same by using the Supplier Exchange Return Document Target State dictionary.

The **SE Return Document Target State** dictionary contains the following columns:

Column Name	Descriptions
Key	Specifies the document types. For example, CAT1, CAT2, CAT3, Project Document, Working Copy Revision.
Return Document State	Specifies the required return document state for a document.
Import Acceptable States	Specifies the states that OpenText Documentum CM for Engineering accepts when the document is returned from Core Collaboration for Engineering.
Final States	Specifies the final state of the document. Here, for CAT1, CAT2, CAT3, the final state is <b>Draft</b> and for Project Documents, the final state is <b>Revised</b> .

### 10.5.2 Completed

The Supplier Document Schedule contains different documents. If a Project Supplier Document Schedule contains multiple deliverables, then the Project Supplier Document Schedule status changes to Completed only when all the deliverable status changes to Cancelled or Latest.

After this state, an entry is created in the dmi queue item with the status set to completed and the task is deleted.

## Chapter 11

# Configuring Right – Click Menu Options

In prior versions of OpenText Documentum CM for Engineering, the right-click menu was used for attaching the document visibility conditions are not configurable.

In OpenText Documentum CM for Engineering, you can configure the visibility conditions that are used in the right-click menu. The validation is maintained in the `dm_dbo.ao_action_menu` register table and is created as part of the OpenText Documentum CM for Engineering install.

The following script updates the menu conditions that can be found at `EPFMA_20.3x\config\install-ao-20.3:`

- `insert_ao_action_menu.xml`: Inserts content into the newly created table.

If you have custom conditions that you need add to the existing menus, you can reference `insert_ao_action_menu.xml` file and perform the necessary changes.

For example, the following is a sample update query that you can use to change the **Attach Change Notice** menu.

```
UPDATE dm_dbo.ao_action_menu SET
    property_name = 'none||none||a_status||category||none||newProperty',
    property_value = 'ao_document||ao_working_copy||Draft||1;2;3||ao_doc_coordinators:ao_doc_authors||none',
    property_conditions = 'none||none||=||or||or||none',
    show_if_invalid = '0||0||0||0||0||0',
    condition_class = 'IsObjectType||IsNotObjectType||HasAttrValue||HasAttrValue||IsUserInGroup||newConditionClass'
    where menu_id = 'menuAttachChangeNotice'
```

The `dm_dbo.ao_action_menu` table contains the following columns:

Column Name	Allowed Values	Description
menu_id	char(255)	Specifies unique menu ID.
is_active	Integer; 1 or 0	If the menu is active, the value is 1.
property_name	char(500)	Specifies the name of the property.
property_value	char(500)	Specifies the value of the property. If property value is boolean, you must specify T for true or F for false.

Column Name	Allowed Values	Description
property_conditions	char(500)	Conditions of the property to be verified against <b>property_name</b> and <b>property_value</b> .
all_valid	Integer; 1 or 0	Specifies whether all the conditions are valid. The value 1 indicates that the condition is active; 0 indicates that the condition is inactive.
show_if_invalid	Integer; 1 or 0	Specifies whether the menu label must be displayed even when the input value is invalid. The value 1 indicates that the condition is active; 0 indicates that the condition is inactive.
condition_class	char(500)	Specifies the name of the condition class.
		Use for delimiting different values in same column.
;		Use as delimiter for OR condition. For example, Category = 1 or 2 or 3
:		Use as a delimiter for multiple values when the condition class is IsUserInGroup. For example, ( $\neg$ ) in database.
SPACE		Space required to type in the database.



**Note:** If property\_name attribute exists for a object type, then during runtime OpenText Documentum CM for Engineering validates the given conditions.

# Chapter 12

## Working Copies

A Working Copy is a copy of an Asset document in the **Effective** State, which is prepared to be sent back to projects. A Working Copy is an object of type *ao\_working\_copy* that extends from the *ao\_document* type. During its creation, a Working Copy inherits both the attributes and the content of the selected source document.

### 12.1 Configuration Summaries

The following topics describe the default Working Copy configurations in OpenText Documentum CM for Engineering.

#### 12.1.1 Working Copies Configurations

Working Copies (*ao\_working\_copy*) are created from Source Documents (Asset documents, *ao\_document* that are in the Effective state). During creation, a working copy inherits both the attributes and content of the selected source document. The working copy is linked to the source document with the help of the **Working Copy Document** relation.

The following table summarizes the configurations for working copies. Each configuration reflects an applicable context that specifies an object type of *ao\_working\_copy*.

Configuration	Description
Auto Naming	Auto populates the names of documents, folders, and other objects created in OpenText Documentum CM for Engineering.  The <b>AO Working Copy</b> context is pre-configured to use the <b>AO Working Copy Naming</b> configuration.
Property Page	Specifies the working copy properties and defines the values that doc coordinators can set when creating the working copy.  The <b>AO Working Copy</b> creation profile is configured to use the <b>AO Working Copy Properties</b> page on creation. For property edit, the <b>AO Working Copy</b> context is pre-configured to use the <b>AO Working Copy Edit Property</b> page.

Configuration	Description
Inheritance	Specifies the inheritance of properties. The <b>AO Working Copy</b> creation profile is configured to use the <b>AO Working Copy Inheritance</b> configuration.
Security	Specifies the access rights for the working copy users. The <b>AO Working Copy</b> context is pre-configured to use the <b>AO Working Copy Security</b> configuration.
Auto Link	Specifies the location where OpenText Documentum CM for Engineering stores the working copies. The <b>AO Working Copy</b> context is pre-configured to use the <b>AO Working Copy Auto Link</b> configuration.
Lifecycle	Defines the lifecycle of a working copy. The <b>AO Working Copy</b> creation profile is configured to use the <b>AO Working Copy Lifecycle</b> configuration.
Audit	Specifies the events that are audited. The AO Working Copy context is pre-configured to use the Auditing for AO Working Copy configuration.

## 12.1.2 Working Copy Lifecycle States

A lifecycle controls the delivery process of a working copy. The base lifecycle is AO Working Copy Lifecycle.

The following table lists the lifecycle states for AO Working Copy Lifecycle:

State	Description
Being Prepared	<p>A Working Copy in this state means it is in preparation. This is the state of a new working copy.</p> <p>When a working copy enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• The working copy receives the default configurations.</li> <li>• The status is set to <b>Being Prepared</b>.</li> <li>• The current user is defined as the <b>author</b> of the working copy.</li> <li>• The <b>Working Copy Document</b> relation is established between the source object and the new working copy object being created.</li> <li>• The source document attributes such as source document name (<i>ao_source_doc_name</i>) and source document number (<i>ao_source_doc_number</i>) are copied to the new working copy source attributes (<i>object_name</i> and <i>ao_control_doc_number</i>).</li> <li>• System sets the property <i>ao_control_doc_number</i> to the value of <i>ao_working_copy_number</i>.</li> </ul> <p>When in this state, a user can use the following action:</p> <p><i>Advanced Properties</i>: Displays the working copy properties page if a user has the WRITE permissions.</p>
Sent to Project	This state means that the working copy is sent as part of the project package to Capital Projects.
Queued	This state means that the project package, which this working copy is part of, has been added to the queue and is ready to be picked up by the scheduled job. This is processed offline by the system.
Ready for Review	This state means that the working copy is returned from Capital Projects.

State	Description
Consolidation	<p>This state means that the working copy changes are consolidated into the source document</p> <p>When in this state, a user can:</p> <ul style="list-style-type: none"><li>• Use <b>Mark as Complete</b> to mark a working copy as <b>Completed</b>, set the status and set the <b>Completed Date</b>.</li></ul>
Completed	<p>When the working copy is consolidated into the source document, the doc coordinator can manually promote the working copy to <b>Complete</b>.</p> <ul style="list-style-type: none"><li>• The status is set to <b>Completed</b>.</li><li>• Completed date is set to <b>\$TODAY</b>.</li></ul>

### 12.1.2.1 Working Copy Lifecycle Auto Action

The D2Lifecycle batch processing job promotes the working copy to the following state when the working copy is in a particular context.

*Process Return:* The working copy context is configured to use the **AO Notify Return Working Copy Lifecycle** batch configuration.

When the working copies are in the Process Return Working Copy context (`r_object_type='ao_working_copy' and a_status='Ready for Review'`), the AO Notify Return Working Copy Lifecycle batch auto promotes the working copy to the Notify on Return state.

*Notify on Return:* This state sends an email to members of the **doc\_coordinators** role to notify about the returned working copy.

*Notify on revised source:* When the source document associated with the working copy is edited and made Effective, the working copy coordinators are notified through an email on the revision of the source document.

### 12.1.3 Working Copy Security Model

The following table describes the working copy security model.

**Table 12-1: Working copy security model**

Readers	Doc Coordinators (authors)	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_world)	Readers	Reviewers	Approvers
Being Prepared	DELETE CHAN GE_OW NER CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	NONE	NONE
Sent to Project	READ, CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	READ	NONE	NONE	NONE	NONE
Queued	READ CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	NONE	NONE
Ready for Review	RELATE CHAN GE_STA TE CHAN GE_PER MIT	RELATE CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	RELATE CHAN GE_STA TE	READ

Readers	Doc Coordinators (authors)	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_worId)	Readers	Reviewers	Approvers
Consolidation	RELATE CHAN GE_STA TE CHAN GE_PER MIT	RELATE CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	RELATE CHAN GE_STA TE	RELATE CHAN GE_STA TE
Completed	READ CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	READ	NONE	READ	READ	NONE

#### 12.1.4 Working Copy (*ao\_working\_copy*) Properties

The Working Copy object type is *ao\_working\_copy* and is a sub-type of the *ao\_document* object type with the following additional attributes:

- *ao\_source\_doc\_name*: Source Document Name
- *ao\_source\_doc\_number*: Source Doc Number
- *ao\_supplier\_name*: Supplier Name
- *ao\_supplier\_number*: Supplier Number
- *ao\_working\_copy\_number*: Working Copy Number
- *ao\_working\_copy\_due\_date*: Due Date
- *actual\_doc\_count*: Working Copy Count – Provides the Working Copy Count for a Asset Document and gets updated based on the number of working copies created. The actual document count is applicable for Working Copy, Working Copy Revision, and Project Working Copy.

## 12.2 Configuring Dictionaries and Taxonomies

You must complete the following sections to configure dictionaries and taxonomies:

### 12.2.1 Creating the Projects Taxonomy

Create two dictionaries and one taxonomy structure to capture the projects to which the documents belong. The two dictionaries cover the Project Titles and Project Numbers.

#### 12.2.1.1 Creating the Project Titles Dictionary

This dictionary provides the Projects titles for the OpenText Documentum CM for Engineering documents.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
2. Select the **Project Titles** dictionary.
3. Click **Create from** and type a name for the new dictionary and add the application name in the **Applications** area.
4. Specify your administrator group.
5. Add a list of your **Projects Titles** on the **Languages** tab. Use the same value for the **Key** and **English** columns.
6. Click **Save**.

#### 12.2.1.2 Creating the Project Numbers Dictionary

This dictionary provides the Projects Numbers to which the OpenText Documentum CM for Engineering documents belong.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
2. Select the **Project Numbers** dictionary.
3. Click **Create from** and type a name for the new dictionary and add the application name in the **Applications** area.
4. Specify the administrator group.
5. Add a list of your **Projects Numbers** on the **Languages** tab. Use the same value for the **Key** and **English** columns.
6. Click **Save**.

### 12.2.1.3 Creating the Projects Taxonomy

1. In client configuration, select **Data > Taxonomy**, and select **Asset Operations Solution** from the **Applications** list.
2. Select **Projects Taxonomy** and click **Create from**, type a name for your new taxonomy and add your application name in the **Applications** area.
3. In the **Used Dictionaries** list, add the dictionaries you created in the following order:
  - Project Titles
  - Project Numbers
4. Add the dictionary values to your taxonomy.
5. Click **Save**.

### 12.2.2 Creating the Suppliers Taxonomy

Create two dictionaries and one taxonomy structure to capture the supplier details. The two dictionaries gather the AO Suppliers Name and AO Suppliers Number.

#### 12.2.2.1 Creating the AO Suppliers Name Dictionary

This dictionary provides the Suppliers details.

1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
2. Select the **AO Suppliers Name** dictionary.
3. Click **Create from** and type a name for your new dictionary and add the application name in the Applications area.
4. Specify the administrator group.
5. In the lower section, click the **Alias** tab.
6. Add a list of **Supplier Names** in the **Key** Column.
7. Supply a short code in the **Short Code** column for each Supplier name in the **Key** column.
8. Click **Save**.

### 12.2.2.2 Creating the AO Suppliers Number Dictionary

This dictionary provides the Suppliers numbers.

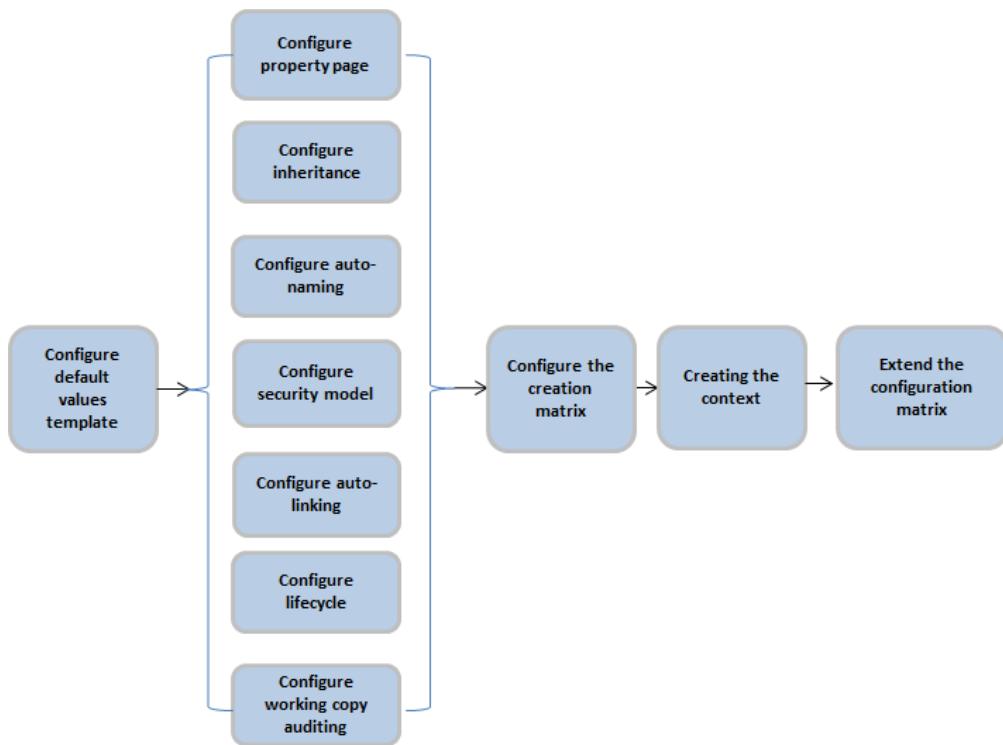
1. In client configuration, select **Data > Dictionary**, and select **Asset Operations Solution** from the **Applications** list.
2. Select the **AO Suppliers Number** dictionary.
3. Click **Create from** and type a name for your new dictionary and add the application name in the **Applications** area.
4. Specify the administrator group.
5. In the lower section, click the **Alias** tab.
6. Add a list of **Supplier Number** in the **Key Column**.
7. Click **Save**.

### 12.2.2.3 Creating the Suppliers Taxonomy

1. In client configuration, select **Data > Taxonomy**, and select **Asset Operations Solution** from the **Applications** list.
2. Select the **Suppliers Taxonomy** and click **Create from**, type a name for your new taxonomy and add your application name in the **Applications** area.
3. In the **Used Dictionaries** list, add the dictionaries you created in the following order:
  - AO Suppliers Name
  - AO Suppliers Number
4. Add the dictionary values to your taxonomy.
5. Click **Save**.

## 12.3 Enabling Document Coordinators to Create Working Copies

The following figure illustrates the process for enabling document coordinators to create a working copy.



To enable document coordinators to create working copies, you must complete the following tasks:

### 12.3.1 Configure Default values template

You can define the default values for the working copies created in your application:

1. In client configuration, select **Creation > Default values template** and select **AO Working Copy Default Values**.
2. Click **Create from**, type your application name in the **Applications** area, and give a name for your default values template.
3. You can configure the following properties and click save.
  - *ao\_can\_be\_in\_transmittal*: Set this value to true. Specifies that the working copies can be included in the transmittals.
  - *ao\_security\_type*: Type EXTERNAL.
  - *ao\_revision*: Type 1.
  - *auditors*: Define the user group that can audit a working copy. The group name must be *<domain\_group\_prefix>\_doc\_auditors*. For example: *ao\_doc\_auditors*.
  - *authors*: Define the user list that can create working copies. This must include the current session user represented by \$USER and the doc coordinators group for the domain:

`<domain_group_prefix>_doc_coordinators.`  
For example: \$USER, ao\_doc\_coordinators

- *domain*: Specify the domain name. For example: AO
- *group name*: Specify the group name prefix that is common to all group names in this domain. You can use this prefix to select the default users or groups for different roles of access. For example: AO.

### 12.3.2 Configuring the Property Page

When you configure the Property page, you can create the configuration from the Property page and configure it for your environment. The “[Working Copies Configurations](#)” on page 337 describes the property page configuration. The Property page defines properties that need to be displayed to the end-user when they create a working copy instance.

1. In client configuration, select **Go to > Property page** and select **AO Working Copy Properties** page.
2. Click **Create from**, Specify a name for the **Properties** page and select your application from the **Applications** list.
3. In the **Document type** drop-down list, select *ao\_working\_copy*.
4. In the **Structure** section, expand the **Document Working Copy Properties** item and then expand the **unlabeled** folder.
5. Update the properties as described in the following table:

Tab/Fieldset	Property	Description
Classifications/Working Copy	ao_project_title	<i>Taxonomy</i> : Select the taxonomy you created in “ <a href="#">Creating the Projects Taxonomy</a> ” on page 343. <i>Level</i> : Project Titles. Next Property: <i>ao_project_number</i>
	ao_project_number	<i>Taxonomy</i> : Select the taxonomy you created in “ <a href="#">Creating the Projects Taxonomy</a> ” on page 343. <i>Level</i> : Project Numbers.
	ao_supplier_name	<i>Taxonomy</i> : Select the taxonomy you created in “ <a href="#">Creating the Suppliers Taxonomy</a> ” on page 344. <i>Level</i> : AO Suppliers Name. Next Property: <i>ao_supplier_number</i>

Tab/Fieldset	Property	Description
	ao_supplier_number	<b>Taxonomy:</b> Select the taxonomy you created in <a href="#">“Creating the Suppliers Taxonomy” on page 344.</a> <b>Level:</b> AO Suppliers Number.
Classifications/Asset	ao_asset_family_s	<b>Dictionary:</b> Asset_Family.
	ao_asset_name_s	<b>Dictionary:</b> Asset_name.
	ao_asset_facility	<b>Dictionary:</b> Asset_Facility.
	ao_asset_area	<b>Dictionary:</b> Asset_Area.
	ao_asset_system	<b>Taxonomy:</b> Asset_System_Subsystem <b>Level:</b> Asset_System Next Property: ao_asset_subsystem The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.
Classifications/Equipment	ao_asset_subsystem	<b>Taxonomy:</b> Asset_System_Subsystem. <b>Level:</b> Asset_Subsystem.
	ao_tag_major_function	<b>Taxonomy:</b> Select the taxonomy AO_MajorFunction_Function_Type <b>Level:</b> Asset Major Function. Next Property: <i>ao_tag_function</i> . The AO_MajorFunction_Function_Type taxonomy reflects the NORSOK coding standard.
	ao_tag_function	Taxonomy: Select the taxonomy AO_MajorFunction_Function_Type. <b>Level:</b> Asset Function Tag
	ao_tag_type ao_asset_equipment_number	Should correspond to a query or list of equipments.
Classifications/License	ao_license_type_s	<b>Dictionary:</b> Asset License Type.

Tab/Fieldset	Property	Description
	ao_license_name_s	<b>Dictionary:</b> Asset License Alias: auto.
	ao_license_number_s	<b>Dictionary:</b> Asset License Alias: number.
Classifications/Status	eif_acceptance_code	<b>Dictionary:</b> Acceptance Code
Source Document/Source Document Type	ao_doc_type_category	The Source Document tab contains the source document properties information from which a working copy is created.
	ao_doc_type_name	
	ao_doc_subtype_name	
Source Document/Source Document	ao_source_doc_name	The Source Document tab contains the source document properties information from which a working copy is created.
	ao_source_doc_number	
Access Control/Doc Coordinators	doc_coordinators	This tab appears if category is less than 4, to select user or group document coordinator members. Use the query to parent document coordinator group.
Selection from DQL Query:		
	<pre>select groups_names from dm_group where group_name='ao_doc_coordinators' union select i_all_users_names from dm_group where group_name='ao_doc_coordinators' order by 1 desc ENABLE (RETURN_TOP 200)</pre>	
Access Control/authors	authors	Select user or group document author members. Adapt query to parent authors group.
Access Control/reviewers	reviewers	This tab appears if category is less than 4, to select the user or group document reviewer members. Adapt query to parent reviewers group.

Tab/Fieldset	Property	Description
Access Control/approvers	approvers	This tab appears if category is less than 3, to select the user or group document approver members. Adapt query to parent approvers group.
Access Control/ qo_approvers	qo_approvers	This tab appears if category is one, to select the user or group second level approver members. Adapt query to parent second approvers group.
Access Control/readers	readers	Select user or group document reader members. Adapt query to parent readers group.
Access Control/ tbr_distribution_list	tbr_distribution_list	This tab appears if category is one to select user or group to-be-read distribution list recipients. Adapt query to parent TBR group.
Access Control/auditors	auditors	Select the user or group auditor members. Adapt query to parent auditors group.

### 12.3.3 Configuring Inheritance

When you configure inheritance for Working Copies, you create the configuration from the inheritance configuration and configure it for your environment.

The “Working Copies Configurations” on page 337 section describes the inheritance configuration.

1. In client configuration, select **Go to > Inheritance** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the Inheritances list, select **AO Working Copy Inheritance** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Configure the inheritance by moving the properties from the **Source** list to the **Selection** list.
5. Click **Save**.

### 12.3.4 Configuring Auto Naming

Configure an Auto Naming definition to control the naming of your Working Copies. When you configure auto naming for working copies, you create the configuration from the auto-naming configuration and configure it for your environment. The “Working Copies Configurations” on page 337 section describes the auto-naming configuration.

1. In client configuration, select **Go to > Auto Naming** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto Namings** list, select **AO Working Copy Naming** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

### 12.3.5 Configuring the Security Model

When you configure the security model configurations for working copies, you create the configurations from the configurations and configure them for your environment.

The “Working Copies Configurations” on page 337, section describes the security model configuration.

The “Working Copy Security Model” on page 340 section describes the working copies security model.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Security templates** list, select **AO Working Copy Security** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

### 12.3.6 Configuring Auto-linking

When you configure auto-linking for working copies, you create the configuration from the auto-linking configuration and configure it for your environment.

The “Working Copies Configurations” on page 337 section describes the auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto links** list, select **AO Working Copy Auto Link** and click **Create from**.

3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

### 12.3.7 Configuring Lifecycles

When you configure Lifecycles for working copies, you create the configurations from lifecycle configurations and configure them for your environment.

[“Working Copy Lifecycle States” on page 338](#) section describes the working copy lifecycle states.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Lifecycles** list, select **AO Working Copy Lifecycle** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, add custom properties in case the type *ao\_working\_copy* is extended, and configure the states and actions for them.
5. Click **Save**.

### 12.3.8 Configuring Working Copy Auditing

When you configure auditing for working copies, you create the configurations from audit configurations to audit working copies in your environment.

1. In client configuration, select **Go to > Audit** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Audit templates** list, select **Auditing for AO Working Copy** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, move the custom properties that you created in from the **Auditable properties** list to the **Audited properties** list.
5. Click **Save**.

### 12.3.9 Configuring the Creation Matrix

The Creation Matrix defines a user group and one or more document types that the user group can create. It also associates each defined document type with the standard or the customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation matrix** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Matrix** list, select **AO Working Copy** and click **Create from**.

3. Specify a name and add your application to the **Applications** list.
4. Configure the following properties:
  - *Label en*: Type a label name in the box (For example, Hydro Working Copy).
  - *Users group*: Select the doc coordinators user group that can create working copies. The group name must be: `<domain_group_prefix>>_doc_coordinators`  
For example: `acme_hydro_doc_coordinators`
  - *Dictionary*: Specify the dictionary that defines the documents for the new domain. By default, it is AO Document Type that has a Working Copy type defined.
5. In the Working Copy row, select the following values in their respective columns and save your changes:
  - *Type column*: Select `ao_working_copy`. This is the base type for a Working Copy.
  - *O2 config column*: Leave this column blank.
  - *Property pages column*: Select the Property page you created. The “[Configuring the Property Page](#)” on page 347 section provides more details on the property page.
  - *Version column*: Type `0.1`
  - *Inheritance column*: Select the Inheritance configuration you created. The “[Configuring Inheritance](#)” on page 350 section provides more details on the inheritance.
  - *Default Values Template column*: Select the template you created. The “[Configure Default values template](#)” on page 346 section provides more details on the default values template.
  - *Lifecycle column*: Select the lifecycle you created. The “[Configuring Lifecycles](#)” on page 352 section provides more details on the lifecycle.
  - *Workflow column*: Leave this column blank.

### 12.3.10 Creating the Context

1. In client configuration, select **Go to > Context** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Contexts** list, select **AO Working Copy** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Provide the following values and click **Save**.
  - *Selection*: Ensure `ao_working_copy` appears in the list.
  - *Condition*: Define the domain condition for your application.  
For example: `r_object_type=ao_working_copy` and `domain=Acme Hydro`

5. Click **Matrix** to view your context in the OpenText Documentum CM client matrix.

OpenText Documentum CM client processes contexts from left to right. To ensure that your context is used, drag the context to the left side of the matrix so that it appears ahead of the AO Working Copy context.

### 12.3.11 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created. The “[Creating the Context](#)” on page 353 section provides more details on the context.
2. For this context, make the following selections:
  - *Auto Naming*: Select the Auto Naming definition you created. The “[Configuring Auto Naming](#)” on page 351 section provides more details on the auto naming.
  - *Security*: Select the Security model definition that you created. The “[Configuring the Security Model](#)” on page 351 section provides more details on the security model.
  - *Property Page*: Select the Property page you created. The “[Configuring the Property Page](#)” on page 347 section provides more details on the property page.
  - *Auto Link*: Select the Auto Link definition you created. The “[Configuring Auto-linking](#)” on page 351 section provides more details on the auto-linking.
  - *Lifecycle*: Select the Lifecycle you created. The “[Configuring Lifecycles](#)” on page 352 section provides more details on the lifecycle.
  - *Auditing*: Select the Audit definition you created. The “[Configuring Working Copy Auditing](#)” on page 352 section provides more details on the working copy auditing.
3. Click **Save**.

## 12.4 Cancelling Supplier Document Schedule and Working Copy Revisions

The following table describes different Supplier Document Schedule scenarios and entry and target states for Working Copy Revision and Asset Document.

Scenario	Entry State	Target State					
	Supplier Document Schedule (SDS) State	Working Copy Revision (WCR) State	Asset Document State	Supplier Document Schedule (SDS) State	Working Copy Revision (WCR) State	Asset Document State	
SDS is in Being Prepared state	Being Prepared	Submitted	Submitted	Cancelled	Cancelled	Withdrawn	
SDS is shared in AO and open in Core Collaboration for Engineering	Shared	For Review	For Review	Shared	For Review	For Review	
SDS is Shared in AO and deliverables are in For Review	Shared	Reviewed	Reviewed	Shared	Reviewed	Reviewed	
SDS is Shared in AO and deliverables are in Reviewed	Shared	Reviewed	Reviewed	Shared	Reviewed	Reviewed	
SDS is Shared in AO and deliverables are in For Approval	Shared	For Approval	For Approval	Shared	For Approval	For Approval	

Scenario	Entry State	Target State				
SDS in Shared in AO and deliverables are in Release Pending	Shared	Not Applicable	Release Pending	Shared	Not Applicable	Release Pending
SDS in Shared in AO and doc is in Effective	Shared	Not Applicable	Effective	Shared	Not Applicable	Withdrawn
SDS in Shared in AO and doc is in Released for Construction	Shared	Released for Construction	Not Applicable	Shared	Cancelled	Not Applicable
SDS is Completed	Completed	Released for Construction	Effective	Completed	Released for Construction	Effective
SDS is in Queued	Queued	Queued	Queued	Queued	Queued	Queued

## Chapter 13

# Creation of Bulk Working Copies

The bulk creation uses the **EPFMACreateBulkWorkingCopies** method and job to create bulk working copies, working copy revisions, or project working copy. The **EPFMACreateBulkWorkingCopies** job uses the following parameters:

Job Arguments	Description
source_doc_ids	Specifies the source object IDs delimited in comma that requires to create a working copy.
query	Returns the source document object IDs that is required for creating a working copy.
project_package_id	Specifies the project package ID where to use to create Project Package relation. This option is mandatory only if source_doc_ids or the query parameter is used.
context_user	Specifies the user to reflect in the created audit records. The default value is generated from the queue sent by the user.
event	Specifies the event name based on the requirement. For example, CreateWCR denotes that a Working Copy event will be triggered. In addition, you can use CreateWCR and CreatePWC for creating Working Copy Revision and Project Working Copy events.  Whenever you want to manually trigger any of these events, you can use the EPFMACreateBulkWorkingCopies job and add all the required parameters for the selected effective documents.
inheritAttrs	Specifies the string that contains the name of the inheritance attributes system that inherits from the source document. This parameter is mandatory.

Job Arguments	Description
source	Select any of the following:  Working Copy – Not Applicable  Working Copy Revision – You can use the defined object id. Object ID contains few key parameters that are used while creating an Working Copy Revision.  Project Working Copy – Source value can be Internal or External.

## 13.1 Configuring AO Working Copy Config Dictionary

You can customize the existing AO Working Copy Config dictionary values for the bulk creation of working copy, working copy revision, or project working copy.

The following table contains the common attributes that are applicable for the bulk creation of working copy, working copy revision, and project working copy:

Parameters	Description
audit	Specifies the creation of the working copy to be audited. The default value is false.
creation_profile	Specifies the name of the OpenText Documentum CM client creation profile. This parameter is mandatory.
child_type	Specifies the object type of the working copy. The default value is ao_working_copy.

The following table contains the attributes that are required for the bulk creation of Working copy:

Parameters	Description
if	Specifies the precondition that must be applied to the document. If the specified precondition (if any) is not satisfied, no action is taken. This enables relations to be processed conditionally.
wc_permanent_link	Specify this value to true to maintain a relationship across subsequent versions of the parent object. The default value is false.
wc_child_entry_state	Specifies the entry state that you must set for the working copy. The default value is Being Prepared.

Parameters	Description
wc_relation_type	Specifies the working copy relation. Denotes the name of the dm_relation that you must create between the source asset doc (parent) and the working copy (child) document. The default value is Working Copy Document.
wc_project_relation_type	Specifies the project package relation. Denotes the name of the dm_relation that you must create between the child type (parent) and the project package (child). The default value is AO Project Package.
wc_inheritAttrs	Specifies the string that contains the name of the inheritance attributes system that inherits from the source document. This parameter is mandatory. For example: ao_control_doc_number as object_name,ao_control_doc_number as ao_source_doc_number, object_name as ao_source_doc_name, document_type as ao_doc_type_name
wc_creation_artifact	Specify the name of the working copy artifact. For example, working copy.

The following table contains attributes that are required for the bulk creation of Working copy revisions:

Parameters	Description
if	Specifies the precondition that must be applied to the document. If the specified precondition (if any) is not satisfied, no action is taken. This enables relations to be processed conditionally.
wcr_permanent_link	Specify this value to true to maintain a relationship across the subsequent versions of the parent object. The default value is false.
wcr_child_entry_state	Specifies the entry state that you must set for the working copy. The default value is Being Prepared.
wcr_relation_type	Specifies the working copy relation. Denotes the name of the dm_relation that you must create between the source asset document (parent) and working copy (child) document. The default value is Working Copy Document.

Parameters	Description
wcr_inheritAttrs	Specifies the string that contains the name of the inheritance attributes system that inherits from the source document. This parameter is mandatory. For example: ao_control_doc_number as object_name,ao_control_doc_number as ao_source_doc_number, object_name as ao_source_doc_name, document_type as ao_doc_type_name
wcr_creationArtifact	Specify the name of the working copy revision artifact. For example, Working Copy Revision.

The following table contains the attributes that are required for the bulk creation of project working copy:

Parameters	Description
if	Specifies the precondition that must be applied to the document. If the specified precondition (if any) is not satisfied, no action is taken. This enables relations to be processed conditionally.
pwc_permanent_link	Specify this value to true to maintain a relationship across subsequent versions of the parent object. The default value is false.
pwc_creationArtifact	Specify the name of the project working copy artifact. For example, Project Working Copy.
pwc_internal_child_entry_state	(Init)
pwc_external_child_entry_state	(Init)
pwc_relation_type	Specifies the working copy relation. Denotes the name of the dm_relation that you must create between the source asset document (parent) and the working copy (child) document.
pwc_project_relation_type	Specifies the project package relation. Denotes the name of the dm_relation that you must create between the child type (parent) and the project package (child). The default value is A0 Project Package.

Parameters	Description
pwc_inheritAttrs	Specifies the string that contains the name of the inheritance attributes system that inherits from the source document. This parameter is mandatory. For example: ao_control_doc_number as object_name,ao_control_doc_number as ao_source_doc_number, object_name as ao_source_doc_name, document_type as ao_doc_type_name, document_type as ao_source_doc_type, ao_discipline_s as ao_discipline_s

### Email template

The following table displays the default email template path:

Parameters	Description
email_template_folder	Path for the Email Template: /AO Library/Templates/Content Templates

The following parameters in **AO Localization Messages** dictionary is used whenever a bulk creation activity succeeds or fails.

Parameters	Description
wc_email_sub_fail	Failure email subject: Bulk \${wc_type} creation had one or more failures for \${project_name}
wc_email_sub_success	Success Email subject: Bulk \${wc_type} creation is successful for \${project_name}
wc_email_template_fail_name	Content Template for the Failure Email: Working Copy Failure Email Template
wc_email_template_success_name	Content Template for Success Email: Working Copy Success Email Template



**Note:** You can use the following methods to retrieve the source document related property.

`#{doc.getSrcDocAttrValue('property_name')}` - Returns property related to source document.

`#{doc.getWorkingCopyAttrValue('property_name')}` - Returns property related to working copy created in process.

In Failure or Success emails, if you want to display additional columns with more property details, you must invoke the

`#{doc.getWorkingCopyAttrValue('property_name')}` function. Here, you must enter the required property name. You can update the same for Failure or Success Email Template. For example, if you want to display the author name in the email template, you must invoke `#{doc.`

getWorkingCopyAttrValue('authors')} function with authors as the value for property\_name.

# Chapter 14

## Working Copy Revisions

A Working Copy Revision is a copy of the effective document or drawing that is shared with a supplier for preparation of a Brownfield or a Minor project.

This chapter contains the following topics:

### 14.1 Configuration Summaries

The following topics describe the default Working Copy Revisions configurations in OpenText Documentum CM for Engineering:

#### 14.1.1 Working Copy Revisions Configurations

Working Copy Revisions (*ao\_working\_copy*) are created from Source Documents (Asset documents, *ao\_document* that are in the Effective state). During creation, a working copy revision inherits only if properties and content are selected. The working copy revision is linked to the source document with the help of the **Working Copy Revision** relation.

The following table summarizes the configurations for working copy revisions. Each configuration reflects an applicable context that specifies an object type of *ao\_working\_copy*.

Configuration	Description
Auto Naming	Auto populates the names for working copy revisions. The <b>Working Copy Revision</b> context is preconfigured to use the <b>AO Working Copy Revision Naming</b> configuration.
Property Page	Specifies the working copy revision properties and defines the values that doc coordinators can set when creating working copy revision. The <b>Working Copy Revision</b> creation profile is configured to use the <b>AO Working Copy Revision Properties</b> page on creation. For property edit, the <b>Working Copy Revision</b> context is pre-configured to use the <b>AO Working Copy Revision Property</b> page.

Configuration	Description
Inheritance	<p>Specifies the inheritance of properties.</p> <p>The <b>Working Copy Revision</b> creation profile is configured to use the <b>AO Working Copy Inheritance</b> configuration.</p>
Security	<p>Specifies the access rights for the working copy revision users.</p> <p>The <b>Working Copy Revision</b> context is pre-configured to use the <b>AO WCR Security</b> configuration.</p>
Auto Link	<p>Specifies the location where OpenText Documentum CM for Engineering stores the working copy revision.</p> <p>The <b>Working Copy Revision</b> context is pre-configured to use the <b>AO WCR Auto Link</b> configuration.</p>
Lifecycle	<p>Defines the lifecycle of a working copy revision.</p> <p>The <b>Working Copy Revision</b> creation profile is configured to use the <b>AO Working Copy Revision Lifecycle</b> configuration.</p>

### 14.1.2 Working Copy Revision Lifecycle States

A lifecycle controls the delivery process of a Working Copy Revision. The base lifecycle is AO Working Copy Revision Lifecycle.

The following table illustrates the lifecycle states for AO Working Copy Revision Lifecycle:

State	Description
Draft	This is the first state for working copy revision.
Submitted	Specifies that the working copy revision is in sync with Core Collaboration for Engineering.
For Review	Specifies that the working copy revision is sent for review. Working copy revision changes the state to <b>For Review</b> .
Revised	Specifies that the working copy revision is revised in the Core Collaboration for Engineering.
Reviewed	Specifies that the working copy revision is sent for a workflow review.

<b>State</b>	<b>Description</b>
For Approval	Specifies that the working copy revision is sent for approval. Working Copy Revision changes the state to <b>For Approval</b> .
Approved	Specifies that the working copy revision is approved.
Cancelled	Specifies that the working copy revision is cancelled.
For Construction	Implies that working copy revision is ready for share.
Queued	When the status is set to queued, it implies that it will be sent to Core Collaboration for Engineering in the form of a transmittal.

### 14.1.3 Working Copy Revision Security Model

The author of the document contains delete permission by default.

The following table describes the working copy revision security model.

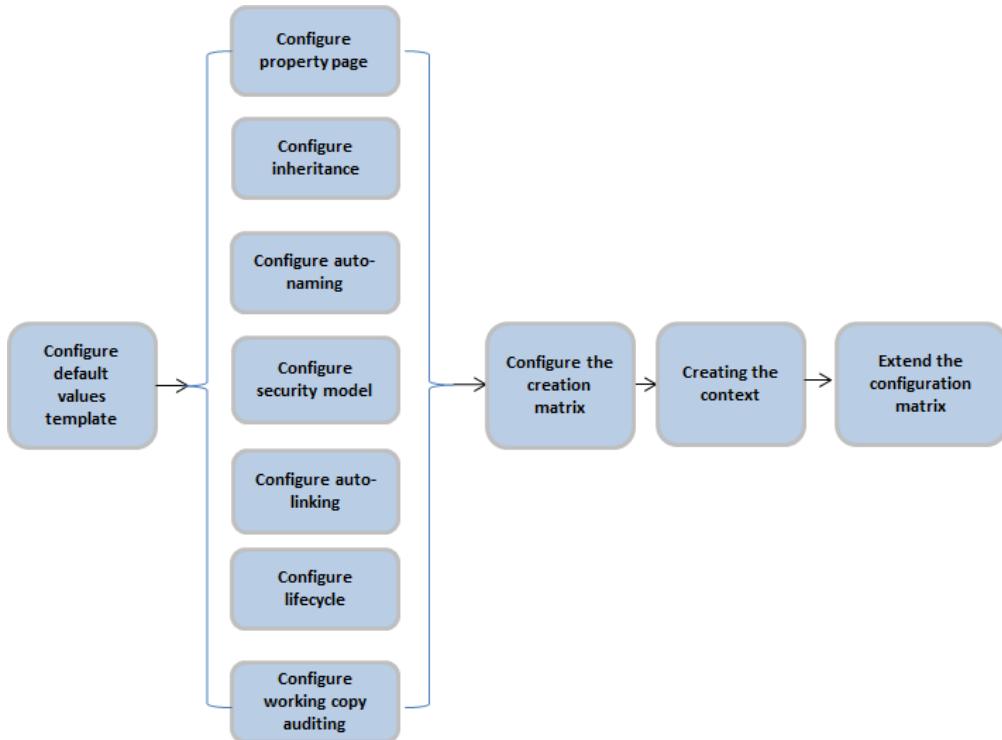
**Table 14-1: Working copy Revision security model**

	Authors	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_world)	Readers	Reviewers	Consolidators	Approvers
Draft	DELETE	WRITE	DELETE	NONE	NONE	NONE	WRITE	WRITE	NONE
Submitted	RELATE	READ	DELETE	NONE	NONE	NONE	NONE	RELATE	NONE
For Review	RELATE	RELATE	DELETE	NONE	NONE	NONE	RELATE	VERSION	NONE
Reviewed	READ	WRITE	DELETE	NONE	NONE	NONE	VERSION	WRITE	NONE
Revised	DELETE	WRITE	DELETE	NONE	NONE	NONE	WRITE	WRITE	NONE
For Approval	READ	READ	DELETE	NONE	NONE	NONE	READ	READ	READ
Approved	READ	READ	DELETE	NONE	NONE	NONE	READ	READ	BROWSE
Cancelled	READ	READ	DELETE	NONE	NONE	NONE	NONE	READ	NONE

	Authors	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_world)	Readers	Reviewers	Consolidators	Approvers
For Construction	READ	READ	RELATE	READ	NONE	READ	READ	READ	BROWSE
Queued	RELATE	READ	DELETE	NONE	NONE	NONE	NONE	RELATE	NONE

## 14.2 Enabling Document Coordinators to Create Working Copy Revisions

The following figure illustrates the process for enabling document coordinators to create a working copy revisions.



The working copy revision configurations serve as a template for managing submitted working copy revision. You can use the existing configurations to create your customized configurations with small variances. Creating from these configurations enables more rapid development of only the variances from what is provided.

To enable document coordinators to create working copy revisions, you must complete the following tasks:

### 14.2.1 Configure Default values template

You can define the default values for the working copies created in your application:

1. In client configuration, select **Creation > Default values template** and select **AO Working Copy Revision Default Values**.
2. Click **Create from**, type your application name in the **Applications** area, and give a name for your default values template.
3. You can configure the following properties and click save.
  - *ao\_can\_be\_in\_transmittal*: Set this value to *true*. Specifies that the working copy revisions can be included in the transmittals.
  - *ao\_security\_type*: The default value is *EXTERNAL*.
  - *ao\_revision*: The default value is *a*.
  - *auditors*: The default value is *ao\_doc\_auditors*.
  - *authors*: Define the user list that can create working copy revisions. This must include the current session user represented by *\$USER* and the doc coordinators group for the domain:  
*<domain\_group\_prefix>\_doc\_coordinators*.  
For example: *\$USER, ao\_doc\_coordinators*
  - *domain*: Specify the domain name. For example: *AO*
  - *eif\_issue\_reason*: The default value is *Issued for Design*.
  - *group name*: The default value is *ao group*.

### 14.2.2 Configuring the Property Page

When you configure the Property page, you can create the configuration from the Property page and configure it for your environment. The “[Working Copies Configurations](#)” on page 337 describes the property page configuration. The Property page defines properties that need to be displayed to the end-user when they create a working copy instance.

1. In client configuration, select **Go to > Property page** and select **AO Working Copy Revision Properties** page.
2. Click **Create from**, Specify a name for the **Properties** page and select your application from the **Applications** list.
3. In the **Document type** drop-down list, select *ao\_working\_copy*.
4. In the **Structure** section, expand the **Document Working Copy Revision Properties** item and then expand the **unlabeled** folder.
5. Update the properties as described in the following table:

Tab/Fieldset	Property	Description
Classifications/Working Copy	ao_working_copy_due_date	Provide the working copy due date.
	ao_project_title	<i>Taxonomy:</i> Select the taxonomy you created in “ <a href="#">Creating the Projects Taxonomy</a> ” on page 343. <i>Level:</i> Project Titles. Next Property: <i>ao_project_number</i>
	ao_project_number	<i>Taxonomy:</i> Select the taxonomy you created in “ <a href="#">Creating the Projects Taxonomy</a> ” on page 343. <i>Level:</i> Project Numbers.
	ao_supplier_name	<i>Taxonomy:</i> Select the taxonomy you created in “ <a href="#">Creating the Suppliers Taxonomy</a> ” on page 344. <i>Level:</i> AO Suppliers Name. Next Property: <i>ao_supplier_number</i>
	ao_supplier_number	<i>Taxonomy:</i> Select the taxonomy you created in “ <a href="#">Creating the Suppliers Taxonomy</a> ” on page 344. <i>Level:</i> AO Suppliers Number.
Classifications/Asset	ao_asset_family_s	<b>Dictionary:</b> Asset Family.
	ao_asset_name_s	<b>Dictionary:</b> Asset_name.
	ao_asset_facility	<b>Dictionary:</b> Asset_Facility.
	ao_asset_area	<b>Dictionary:</b> Asset_Area.
	ao_asset_system	<b>Taxonomy:</b> Asset_System_Subsystem <i>Level:</i> Asset_System Next Property: <i>ao_asset_subsystem</i> The Asset_System_Subsystem taxonomy and dictionaries reflect the NORSOK Coding standard Z-DP-002.
	ao_asset_subsystem	<b>Taxonomy:</b> Asset_System_Subsystem. <b>Level:</b> Asset_Subsystem.
Classifications/Equipment	ao_tag_major_function	<b>Taxonomy:</b> Select the taxonomy <i>AO_MajorFunction_Function_Type</i> <b>Level:</b> Asset Major Function. Next Property: <i>ao_tag_function</i> . The <i>AO_MajorFunction_Function_Type</i> taxonomy reflects the NORSOK coding standard.
	ao_tag_function	Taxonomy: Select the taxonomy <i>AO_MajorFunction_Function_Type</i> . Level: Asset Function Tag

Tab/Fieldset	Property	Description
	ao_tag_type ao_asset_equipment_number	Should correspond to a query or list of equipments.
Classifications/License	ao_license_type_s	<b>Dictionary:</b> Asset License Type.
	ao_license_name_s	<b>Dictionary:</b> Asset License Alias: auto.
	ao_license_number_s	<b>Dictionary:</b> Asset License Alias: number.
Working Copy Revision Number	ao_control_doc_number	Control document number for the working copy revision.
Domain	domain	
Can be in Transmittal	ao_can_be_in_transmittal	Indicates whether working copy revision can be part of transmittal.
Part of Package	ao_pack_id	List of packages which working copy revision is part of.
Issued For	eif_issue_reason	Issue reason.
Status	a_status	Status of working copy revision.
Acceptance Code	eif_acceptance_code	<b>Dictionary:</b> Acceptance Code.
Revision	ao_revision	Revision Code
Group Name	group_name	Provide the group name.
Document Type	document_type	Provide the document type details.
PO Number	ao_po_number	PO number for working copy revision.
EIF Revision	eif_revision	Provide the eif_revision details.
Source Document/Source Document Type	ao_doc_type_category	The Source Document tab contains the source document properties information from which a working copy is created.
	ao_doc_type_name	
	ao_doc_subtype_name	
Source Document/Source Document	ao_source_doc_name	The Source Document tab contains the source document properties information from which a working copy is created.
	ao_source_doc_number	
	ao_discipline_s	

Tab/Fieldset	Property	Description
	category	
Access Control/Doc Coordinators	doc_coordinators	This tab appears if category is less than 4, to select user or group document coordinator members. Use the query to parent document coordinator group.
Selection from DQL Query:		
		<pre>select groups_names from dm_group where group_name='ao_doc_coordinators' union select i_all_users_names from dm_group where group_name='ao_doc_coordinators' order by 1 desc ENABLE (RETURN_TOP 200)</pre>
Access Control/authors	authors	Select user or group document author members. Adapt query to parent authors group.
Access Control/reviewers	reviewers	This tab appears if category is less than 4, to select the user or group document reviewer members. Adapt query to parent reviewers group.
Access Control/approvers	approvers	This tab appears if category is less than 3, to select the user or group document approver members. Adapt query to parent approvers group.
Access Control/qo_approvers	qo_approvers	This tab appears if category is one, to select the user or group second level approver members. Adapt query to parent second approvers group.
Access Control/readers	readers	Select user or group document reader members. Adapt query to parent readers group.
Access Control/TBR Distribution List	tbr_distribution_list	This tab appears if category is one to select user or group to-be-read distribution list recipients. Adapt query to parent TBR group.
Access Control/Auditors	auditors	Select the user or group auditor members. Adapt query to parent auditors group.

### 14.2.3 Configuring Inheritance

When you configure inheritance for Working Copy Revisions, you create the configuration from the inheritance configuration and configure it for your environment.

The “[Working Copies Configurations](#)” on page 337 section describes the inheritance configuration.

1. In client configuration, select **Go to > Inheritance** and select **Asset Operations Solution** from the **Application** drop-down list.

2. In the Inheritances list, select **AO Working Copy Revision Inheritance** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Configure the inheritance by moving the properties from the **Source** list to the **Selection** list.
5. Click **Save**.

#### 14.2.4 Configuring Auto Naming

Configure an Auto Naming definition to control the naming of your Working Copy Revision. When you configure auto naming for working copy revision, you create the configuration from the auto-naming configuration and configure it for your environment. The “[Working Copies Configurations](#)” on page 337 section describes the auto-naming configuration.

1. In client configuration, select **Go to > Auto Naming** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto Namings** list, select **AO Working Copy Revision Naming** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

#### 14.2.5 Configuring the Security Model

When you configure the security model configurations for working copies, you create the configurations from the configurations and configure them for your environment.

The “[Working Copies Configurations](#)” on page 337, section describes the security model configuration.

The “[Working Copy Security Model](#)” on page 340 section describes the working copies security model.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Security templates** list, select **AO WCR Security** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Click **Save**.

## 14.2.6 Configuring Auto-linking

When you configure auto-linking for working copy revisions, you create the configuration from the auto-linking configuration and configure it for your environment.

The “[Working Copies Configurations](#)” on page 337 section describes the auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto links** list, select **AO Working Copy Revisions Auto Link** and click **Create from**.
3. The **AO Working Copy Revisions Auto Link** is autofiled under *domain/Projects/ao\_project\_number/Working Copy Revision*.
4. Specify a name and add your application to the **Applications** list.
5. Click **Save**.

## 14.2.7 Configuring Lifecycles

When you configure Lifecycles for working copies, you create the configurations from lifecycle configurations and configure them for your environment.

“[Working Copy Lifecycle States](#)” on page 338 section describes the working copy lifecycle states.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Lifecycles** list, select **AO Working Copy Revision Lifecycle**. The AO Working Copy Revision Lifecycle contains **Draft**, **Submitted**, **For Review**, **Reviewed**, **For Approval**, **Approved**, **Queued**, **Invalid**, **Cancelled**, **For Construction**, and **Revised**.
3. Specify a name and add your application to the **Applications** list.
4. If necessary, add custom properties in case the type *ao\_working\_copy* is extended, and configure the states and actions for them.
5. Click **Save**.

### 14.2.8 Configuring the Creation Profile

The Creation Matrix defines a user group and one or more document types that the user group can create. It also associates each defined document type with the standard or the customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation Profile** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Matrix** list, select **AO Working Copy Revision** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Configure the following properties:
  - *Label en*: Type a label name in the box (For example, Hydro Working Copy).
  - *Users group*: Select the doc coordinators user group that can create working copy revision.  
The group name must be: `<domain_group_prefix>>_doc_coordinators`  
For example: `acme_hydro_doc_coordinators`
  - *Dictionary*: Specify the dictionary that defines the documents for the new domain. By default, it is AO Document Type that has a Working Copy type defined.
5. In the Working Copy row, select the following values in their respective columns and save your changes:
  - *Type column*: Select `ao_working_copy`. This is the base type for a Working Copy.
  - *O2 config column*: Leave this column blank.
  - *Property pages column*: Select the Property page you created. The “[Configuring the Property Page](#)” on page 347 section provides more details on the property page.
  - *Version column*: Type `0.1`
  - *Inheritance column*: Select the Inheritance configuration you created. The “[Configuring Inheritance](#)” on page 350 section provides more details on the inheritance.
  - *Default Values Template column*: Select the template you created. The “[Configure Default values template](#)” on page 346 section provides more details on the default values template.
  - *Lifecycle column*: Select the lifecycle you created. The “[Configuring Lifecycles](#)” on page 352 section provides more details on the lifecycle.
  - *Workflow column*: Leave this column blank.

### 14.2.9 Creating the Context

1. In client configuration, select **Go to > Context** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Contexts** list, select **Working Copy Revision** and click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. Provide the following values and click **Save**.
  - *Selection:* Ensure `ao_working_copy` appears in the list.
  - *Condition:* Define the domain condition for your application.  
For example: `r_object_type=ao_working_copy` and `domain=Acme Hydro`
5. Click **Matrix** to view your context in the OpenText Documentum CM client matrix.  
OpenText Documentum CM client processes contexts from left to right. To ensure that your context is used, drag the context to the left side of the matrix so that it appears ahead of the AO Working Copy context.

### 14.2.10 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

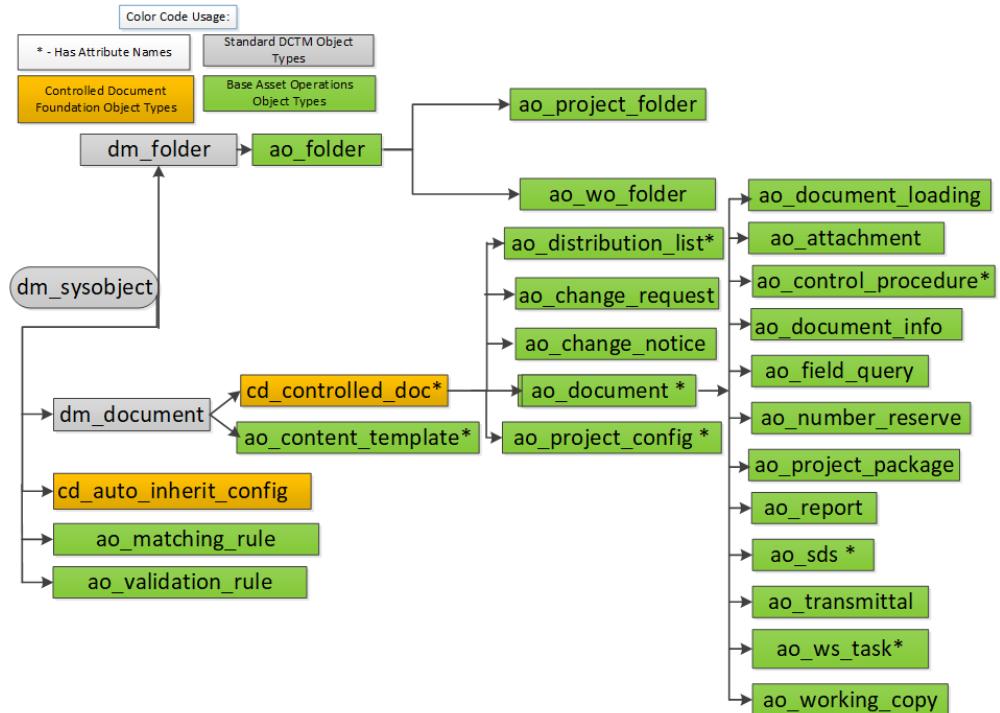
1. From the toolbar, click **Matrix** and locate the context you created. The “[Creating the Context](#)” on page 353 section provides more details on the context.
2. For this context, make the following selections:
  - *Auto Naming:* Select the Auto Naming definition you created. The “[Configuring Auto Naming](#)” on page 351 section provides more details on the auto naming.
  - *Security:* Select the Security model definition that you created. The “[Configuring the Security Model](#)” on page 351 section provides more details on the security model.
  - *Property Page:* Select the Property page you created. The “[Configuring the Property Page](#)” on page 347 section provides more details on the property page.
  - *Auto Link:* Select the Auto Link definition you created. The “[Configuring Auto-linking](#)” on page 351 section provides more details on the auto-linking.
  - *Lifecycle:* Select the Lifecycle you created. The “[Configuring Lifecycles](#)” on page 352 section provides more details on the lifecycle.
  - *Auditing:* Select the Audit definition you created. The “[Configuring Working Copy Auditing](#)” on page 352 section provides more details on the working copy auditing.
3. Click **Save**.

## Chapter 15

# OpenText Documentum CM for Engineering Data Model

The data model extends the Documentum object model to provide domain specific types and properties. Documents in OpenText Documentum CM for Engineering are of `ao_document` type and its subtype, folders are of `ao_folder` type and its sub type. Project configuration is of `ao_project_config` type, Transmittals are of type `ao_transmittal` and so on.

The following figure displays the object model in OpenText Documentum CM for Engineering:





# Chapter 16

## Configuring Minor Projects

OpenText Documentum CM for Engineering supports the management of projects in parallel with the management of content for on-going operations. Within the same repository, you are able to participate in processes to create, review, approve, and share content -- whether pertaining to on-going operations or Brownfield projects. You can share information between operations and managed projects.

This chapter contains the following topics:

### 16.1 Projects in OpenText Documentum CM for Engineering

Using managed projects in OpenText Documentum CM for Engineering, you can:

- Create Projects
  - Create Projects within a Projects area managing project documents and processes.
  - Define project members.
  - Share completed documents back to Operations.
- Author Project Documents: Author Project Documents revised either internally or externally and uniformly managed and accessed by defined project members.
- Manage Projects: Manage Project Documents through preparation, verification, approval or review with integrated commenting and comment consolidation.
- Send Projects Documents through Transmittals to share externally revised project documents to external parties.

The following topics describe the projects in OpenText Documentum CM for Engineering:

## 16.1.1 Creating Projects in OpenText Documentum CM for Engineering

OpenText Documentum CM for Engineering supports the rapid creation of projects within a Projects cabinet.

Creating a project comprises:

- Creating a project area organized by facility – Creating a project configuration that represents the project, settings, and members.
- Creating project folders.
- Activating the project – Doc coordinators can activate the project. This enables the project authors to create new project documents or content copies of operational documents.

In prior releases of OpenText Documentum CM for Engineering, the projects were created by using the defined values in dictionary and taxonomy. From OpenText Documentum CM for Engineering 16.6 release, you can type project name and number details in Project Configuration dialog box and there is no dictionary and taxonomy dependency. The creation profile for each project is created automatically.

OpenText Documentum CM for Engineering creates the project name by using the project number and project title with a dash delimiter. The creation profile has the identical name and object\_name specified as the matching folder property. This pattern helps project authors to view their respective project creation profile regardless of the other existing, active projects.

Closing the project removes the project creation profile as visible to business administrators.

### 16.1.1.1 Creating Project Configurations

The Minor Project Folder extended creation profile enables creation of new projects (ao\_project\_config instances).

Use the following two contexts to enable creation of new projects:

- AO MP Cabinet context: Active Projects cabinet for ao\_doc\_coordinator group members.
- AO Minor Project Config context: Use when a project configuration (ao\_project\_config) is selected.

Projects are setup in OpenText Documentum CM for Engineering by creating project configurations. You can use **New > Projects** menu item to create projects.

A new ao\_project\_config object automatically filed to the Active Projects cabinet, specified facility folder, and created project folder concatenated from the entered project number dash(-) project title.

The applied configurations are:

Configuration Category	Configuration Name
Auto naming	AO Minor Project Configuration Naming
Property Page	AO Project Config Property Page
Inheritance	AO Project Config Inheritance
Security	AO Project Config Security
Auto link	AO MP Project Subfolder Auto Link
Default value template	Minor Project Config Defaults
Lifecycle	AO Minor Projects Lifecycle

In project configuration, you can use the **Active Projects Standard Creation Profile** as a templates for Project Creation Template option or you can customize a required template by configuring the same in **AO Project Config Property Page**. The DQL query fetches the required template in Project Creation Template.

### 16.1.1.2 Defining Project Members Configurations

The following are the existing roles in each project configuration:

- Project Controllers (doc\_coordinators)
- Project Owners (ao\_project\_owners)
- Project Authors (authors)
- Project Approvers (approvers)
- Project Reviewers (reviewers)
- Project Readers (readers)

All members are selected from the defines sub-groups and users of a provides project\_groups group. You can adapt group membership and selection based on Facility.

All the newly created project specifies its project members. Project controllers can use Membership menu on the project configuration to modify the project members. Each project configuration must use AO Minor Projects Lifecycle.

The project configuration's property page can be altered to query different defined groups for project members.

## 16.1.2 Applied Folder Configurations

The following table lists the applied folder configuration elements that are used by the Project Folder. When customizing the applied folder configurations to address customer-specific business requirements, these applied folder configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Auto naming	AO Minor Project Naming
Property Page	AO Project Folder Property
Inheritance	AO MP Folder Inheritance
Security	AO MP Folder Security
Auto link	AO MP Project Folder Auto Link
Default value template	Minor Project Folder Defaults

## 16.1.3 Applied Folder Default Values

A pertinent Default Values template is assigned to each document type within the creation profiles. The following figure is an example of a Default Values template, which is assigned to Project Folder:

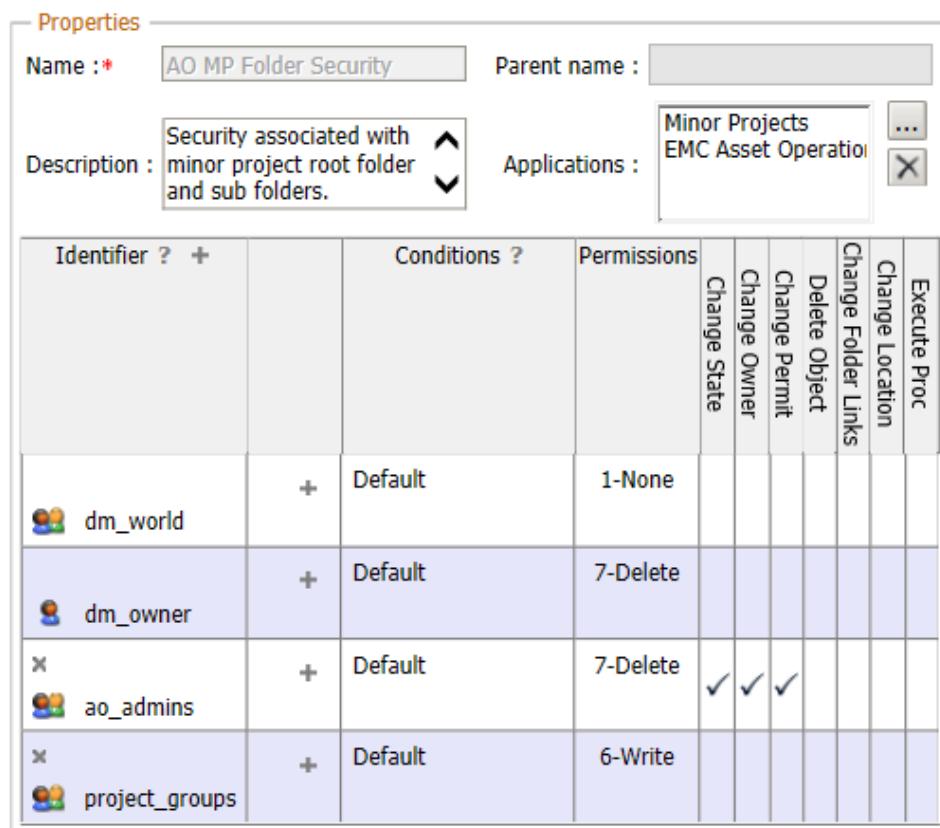
The screenshot shows the 'Properties' screen for a 'Default values' template. The 'Name' field is set to 'Minor Project Folder Defaults'. The 'Description' field is empty. Below this, there is a table for defining default values for different properties. The table has two columns: 'Properties\*' and 'Default values ?'. A row is shown for the 'folder\_type' property, which is set to 'Project Folder'. There are '+' and '-' buttons to add or remove rows from the table.

Properties*	Default values ?
folder_type	Project Folder

## 16.1.4 Applied Project Folder Security

This section describes the security model used while creating Project Folder in Projects. Here,

- AO\_admin and dm\_owner has permission to delete a folder.
- Project\_groups has write permission.



## 16.1.5 Applied Project Lifecycle

The following are the different states for Applied Project Lifecycle:

Current State	Possible Next State	Description
Planning	Active	Planning state where project is not yet commenced. This transition happens when make active action is triggered.

Current State	Possible Next State	Description
Active	Pending Closure	Active project state. This transition happens when Close Project action is triggered. The AO Close Minor Project property is displayed as part of this action to confirm the action.
Pending Closure	Closed	This state is set by the closure job. This indicates that all contents saved back to operations are completed.
...	Invalid	This is set by the closure job when an error captures.
Invalid	Pending Closure	An error state indicates an issue when running the method. This transition happens when user retry to re-run the close project action.

### 16.1.6 Importing and Reusing Project Folder Configurations

OpenText Documentum CM for Engineering supports applying common folder hierarchies to create projects by importing folder hierarchies from the local drive into an existing project; or, into a Projects Library area. If saved to the Project Library area, the folders can then be repeatedly copied and pasted to new projects.

The configured folder structure import rules are AO Project Folder Hierarchy that imports folders the **Active Projects /<Facility> / <Project>**, and AO Project Folder Template that imports the folders to **Projects Library / Project Templates / <Facility>**.

Each creates the root and sub-folders as type `ao_project_folder` and apply a common folder access, AO MP Folder Security. Each also have a different auto-link location and a different creation profiled (AO Import Project Folder Hierarchy and AO Project Folder Template).

Both creation profiles are only for import, only specify a single option, and are only for `ao_doc_coordinators`.

## 16.1.6.1 Importing Project Templates

You can use a standard folder hierarchy to manage content across the projects. Use OpenText Documentum CM client environment to import folder hierarchies from the file system in a single action.

### 16.1.6.1.1 Applied Project Template Configurations

The following table lists the client configuration elements that are used by the Project Template. When customizing the client configuration to address customer-specific business requirements, these client configuration must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO MP Project Template Property Page
Security	AO MP Folder Security
Auto links	AO MP Project Templates Auto Link
Context	AO Project Template
Default Value Template	AO MP Project Template Default Values
Inheritance	AO MP Folder Inheritance

### 16.1.6.1.2 Default Value Templates

A pertinent Default Values template is assigned to each document type within the creation profiles.

The following is a sample for Default Values template, which is assigned to Project Folder:

Folder Type	Keywords	Subjects
Facility Folder	Project Content Template, Project Transmittal	Minor Projects
Project Folder	NA	NA
Project Subfolder	NA	NA
Project Documents	<pre>ao_can_be_in_transmittal=true ao_revision=a document_type=Project Document domain=A0 object_name=Auto Named</pre>	NA

#### 16.1.6.1.2.1 Auto Naming

The folders that you import from your computer is retained as the folder name in the Projects folder structure. For example: Architecture/Drawing/Manufacturing/...

#### 16.1.6.2 Importing Project Folder Hierarchy and Templates

Using OpenText Documentum CM for Engineering, you can create project folder hierarchy by:

- Importing folders from local drive into the project.
- Importing the folders from the local drive into the projects library cabinet for reuse (copy paste).

You can use a standard folder hierarchy to manage content across the projects. Use OpenText Documentum CM client environment to import folder hierarchies from the file system in a single action.

The newly created folder structure uses AO MP Folder Security.

The following are the configuration settings for the import folder structure:

Applied Configuration	AO Project Folder Hierarchy	AO Project Folder Template
Property Page	AO Project Folder Property Page	AO MP Project Template Property Page
Creation Profile	AO Import Project Folders	AO Project Folder Template
Inheritance	AO MP Sub Folder Inheritance	AO MP Folder Inheritance
Security	AO MP Folder Security	AO MP Folder Security
Auto links	AO MP Project Subfolder Auto Link	AO MP Project Template Auto Link
Default Value Template	Minor Project Sub Folder Defaults	AO MP Project Template Defaults

Use the following to enable folder imports prototype document:

Project Cabinets and Folders	ao_folder_type	Import Folder Structure
Active Projects	Not Applicable	None
-Granite Point	Project	None
--Content Templates	Not Applicable	None
---G89443-Compressor Refurbishment	Project	AO Project Folder Hierarchy

<b>Project Cabinets and Folders</b>	<b>ao_folder_type</b>	<b>Import Folder Structure</b>
-- -- G89471-Onshore Storage	Project	AO Project Folder Hierarchy
Projects Library	Not Applicable	None
-- -- Project Templates	Project	AO Project Folder Template

### 16.1.7 Customizing Creation Profiles

You can create a new creation profile based on the existing project creation profile, thereby simplifying the configuration process.

You can perform the following changes to the existing creation profile:

- Change the creation profile name matching the name of the new project
- Add or remove the types of created project documents in dictionary column
- Apply different inheritance of default values
- Display different property page that reflects the project specific settings.

Here, OpenText Documentum CM for Engineering default setup applies the same object type to all documents and a common lifecycle that resolves to an internal or external lifecycle based on specified document source. The internal and external lifecycle replicate the same approach as used in Capital Projects.



**Note:** You can avoid applying different lifecycles or creating different object types.

Prior to adding additional artifacts to a new or existing creation profile, you must create any of the following configurations that will be referenced in the creation profile:

- Object types
- Dictionaries or added dictionary values
- Property pages
- Inheritance configurations
- Default values templates
- Lifecycles

## 16.1.8 Activating Project Configurations

Activating a project (promoting to Active status) enables project authors to create content. Also, you must define a creation profile for this project that matches the project name.

For example, Project - PTOO29-Gas Compressor Replacement

This project must follow these:

- Creation profile of the same name and label must exist with folder properties used for creation set to object\_name.
- Users group set to the group of all project authors and can create and import content.

The following are the advantages:

- Enables one creation profile for project folder area.
- Settings applied on create or import of content.

In OpenText Documentum CM for Engineering, you can promote a project to active status by selecting the project configuration, right click and select **Make Active** project.

## 16.1.9 Closing a Project

Closing a project enables project controller to share latest content back to Operations folder for use or for consolidation with source as-built. Also, closing a project disables new project content creation and moving the project content into a closed project area.

The following steps occur when a close project job is executed:

- Processes each related project documents and saves the document to operations.
- After all the project documents have completed successfully, the close project invokes EPFMADisableProjectMethod to disable the project.
- The EPFMAMoveProjectFolder method moves the project from active projects area to closed project area.

The following topics describe the close project configurations in OpenText Documentum CM for Engineering:

### 16.1.9.1 Applied Project Configurations on Closure

The following table lists the configuration elements that are used by the closure job. When customizing the configurations to address customer-specific business requirements, these client configuration must not be renamed or removed from the system. These configurations are used by the methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO Close Minor Project
Lifecycle	AO Minor Projects Lifecycle
Dictionaries	System Minor Project Closure Mapping Minor Project Closure Tasks Close Project Document State Close Working Copy State System Parameters
Default value template	AO Return Project Document Default AO Return Working Copy Default
Register table	ao_method_parameter

### 16.1.9.2 Applied Project Lifecycle

The AO Minor Projects Lifecycle config is used to enable the Project Closure where Pending Closure, Closed, and Invalid are configured to support these operations.

Current State	Possible Next State	Description
Planning	Active	Planning state where project is not yet commenced. This transition happens when make active action is triggered.
Active	Pending Closure	Active project state. This transition happens when Close Project action is triggered. The AO Close Minor Project property is displayed as part of this action to confirm the action.
Pending Closure	Closed	This state is set by the closure job. This indicates that all contents saved back to operations are completed.
	Invalid	This is set by the closure job when an error captures.

Current State	Possible Next State	Description
Invalid	Pending Closure	An error state indicates an issue when running the method. This transition happens when user retry to re-run the close project action.

### 16.1.9.3 Applied Defaults on Returned Asset Documents

A pertinent default values template is used to define attributes set on the document when saving back to Operations. The value can be attribute expressed or attribute from related project config object.

You can customize the default template by adding or modifying the attributes on the default value templates. When modifying the attributes on the default template, you must ensure that a valid value is provided for those attributes that are needed on the Operation document auto-linking config (For example: AO Document Auto Link) or set as mandatory on the property page.

The following table explains few default value examples:

Properties	Default Values	Description
eif_po_reference	#{ao_po_number}	This method retrieves the value of ao_po_number from the current document and sets to eif_po_reference of target object.
a_status	#{childRel.Project Configuration.ao_project_document_state}	<p>This method validates the Project Configuration relation type by using current document as the child and retrieves the ao_project_document_state from the related object.</p> <p>The resolved value is set to the target object's a_status attribute.</p> <p>This method supports childRel or parentRel where current object is child or parent of the relation when resolving attribute expression.</p>

Properties	Default Values	Description
ao_po_number	NULL or empty string	This method sets ao_po_number to empty string. In addition, verifies for empty string and sets them last after the non-empty default values are resolved first.

The following is a sample AO Return Project Document Default property:

— Properties —

Name :*	AO Return Project Document Default
Description :	<input type="text"/>

---

Properties *	Default values ?
a_status	`\${childRel.Project Configuration.ao_project_document_state}`
ao_asset_area	`\${childRel.Project Configuration.ao_asset_area}`
ao_asset_family_s	Power Exploration
ao_asset_name_s	Mars
ao_asset_system	`\${childRel.Project Configuration.ao_asset_system}`
ao_doc_type_name	
ao_po_number	
ao_project_number	
ao_project_title	
eif_alt_doc_number	`\${ao_control_doc_number}`
eif_po_reference	`\${ao_po_number}`
eif_project_ref	`\${ao_project_number}`
eif_type_of_doc	`\${ao_doc_type_name}`

#### 16.1.9.4 Project Closure Dictionaries

Closure job uses following dictionaries to manage varies options:

- *System Minor Project Closure Mapping*: This dictionary defines the mapping of project document type to operation type, category, and default template uses when performing the saves back to Ops attribute routine.

<i>Key</i>	Project document type where program will use to match from the Project document's ao_type_of_doc.
<i>Operations Doc Type</i>	Operation document type where program is set to the target object when saving back to document. New major version of the operation document is created based on this setting.
<i>Category</i>	Category value set on the target document.
<i>Default Value Template</i>	This method uses the attributes define on the default template when saving back to Operations. When customizing this dictionary, you can add or modify a new project document type matching your project creation profile document type and Operation doc type matching the AO artifacts creation profile. All columns are required when you modify this dictionary.

The following figure is a sample System Minor Project Closure Mapping dictionary:

Name :*	System Minor Project Closure Mapping																																			
Description :	<input type="text"/>																																			
Versioned dictionary :	<input type="checkbox"/>																																			
<input checked="" type="radio"/> Groups <input type="radio"/> Labels																																				
Administration group : <input type="text" value="ao_doc_coordinators"/> Search Dictionary available for the group : <input type="text"/>																																				
Manual sort : <input type="checkbox"/> Create a registered table : <input type="checkbox"/> DQL dictionary : <input type="checkbox"/>																																				
<input checked="" type="radio"/> Languages <input type="radio"/> Alias																																				
Add alias    Remove alias    Remove value																																				
<table border="1"> <thead> <tr> <th></th> <th>Key</th> <th>Operations Doc Type</th> <th>Category</th> <th>Default Value Template</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>Alignment Sheet</td> <td>CAT3</td> <td>3</td> <td>AO Return Project Document Default</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Analysis</td> <td>CAT2</td> <td>2</td> <td>AO Return Project Document Default</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Area Protection Drawing</td> <td>CAT2</td> <td>2</td> <td>AO Return Project Document Default</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Basis of Design</td> <td>CAT2</td> <td>2</td> <td>AO Return Project Document Default</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Bill of Material</td> <td>CAT2</td> <td>2</td> <td>AO Return Project Document Default</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Block Diagram</td> <td>CAT2</td> <td>2</td> <td>AO Return Project Document Default</td> </tr> </tbody> </table>			Key	Operations Doc Type	Category	Default Value Template	<input checked="" type="checkbox"/>	Alignment Sheet	CAT3	3	AO Return Project Document Default	<input checked="" type="checkbox"/>	Analysis	CAT2	2	AO Return Project Document Default	<input checked="" type="checkbox"/>	Area Protection Drawing	CAT2	2	AO Return Project Document Default	<input checked="" type="checkbox"/>	Basis of Design	CAT2	2	AO Return Project Document Default	<input checked="" type="checkbox"/>	Bill of Material	CAT2	2	AO Return Project Document Default	<input checked="" type="checkbox"/>	Block Diagram	CAT2	2	AO Return Project Document Default
	Key	Operations Doc Type	Category	Default Value Template																																
<input checked="" type="checkbox"/>	Alignment Sheet	CAT3	3	AO Return Project Document Default																																
<input checked="" type="checkbox"/>	Analysis	CAT2	2	AO Return Project Document Default																																
<input checked="" type="checkbox"/>	Area Protection Drawing	CAT2	2	AO Return Project Document Default																																
<input checked="" type="checkbox"/>	Basis of Design	CAT2	2	AO Return Project Document Default																																
<input checked="" type="checkbox"/>	Bill of Material	CAT2	2	AO Return Project Document Default																																
<input checked="" type="checkbox"/>	Block Diagram	CAT2	2	AO Return Project Document Default																																

- *Minor Project Closure Tasks:* This dictionary contains a list of tasks to be performed on the document when saving back to Operations.

The following figure is a sample Minor Project Closure Tasks dictionary:

The screenshot shows a configuration page for a project named "Minor Project Closure Tasks". The "Name :" field is filled with "Minor Project Closure Tasks". The "Description :" field is empty. The "Versioned dictionary :" checkbox is unchecked. Below this, there are two tabs: "Groups" (selected) and "Labels". Under "Groups", the "Administration group :" dropdown is empty, and the "Search Dictionary available for the group :" dropdown is also empty. There are three checkboxes below: "Manual sort :" (unchecked), "Create a registered table :" (unchecked), and "DQL dictionary :" (unchecked). At the bottom, there is another tab labeled "Languages" (selected) and "Alias". Under "Alias", there are buttons for "Add alias" and "Remove alias". A table lists five tasks:

	Key	Task Name
<input checked="" type="checkbox"/>	0	Set Ops attr
<input checked="" type="checkbox"/>	1	Set D2 Config
<input checked="" type="checkbox"/>	2	Set status
<input checked="" type="checkbox"/>	3	Del relation
<input checked="" type="checkbox"/>		

- *Closure Project Document State*: This dictionary stores the target state to set on project document when saving back to Ops.
- *Closure Working Copy State*: This dictionary stores target state to set on project working copy when saving back to Ops.
- *System Parameters*: This dictionary contains the setting when you are using multiple servers to distribute the load, you can define number of thread, threshold, content server, and shared\_folder for use by the job.

Content\_servers – Specifies the name of Content server used for processing. The default value is set to \* = all servers.

Shared\_folder – Must be a valid location to store temporary files that can be accessed on the Documentum server.

The following figure is a sample default System Parameters:

Name :*	System Parameters																			
Description :	<input type="text"/>																			
Versioned dictionary :	<input type="checkbox"/>																			
<input checked="" type="radio"/> Groups <input type="radio"/> Labels																				
Administration group :	<input type="text"/>																			
Search Dictionary available for the group :	<input type="text"/>																			
Manual sort :	<input type="checkbox"/>																			
Create a registered table :	<input type="checkbox"/>																			
DQL dictionary :	<input type="checkbox"/>																			
<input checked="" type="radio"/> Languages <input type="radio"/> Alias																				
<input type="button" value="Add alias"/> <input type="button" value="Remove alias"/> <input type="button" value="Remove value"/>																				
<table border="1"> <thead> <tr> <th></th> <th>Key</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>content_servers</td> <td>*</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>distributed_processing_threshold</td> <td>100</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>max_threads</td> <td>5</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>shared_folder</td> <td>C:/temp/close_project</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> </tbody> </table>				Key	Value	<input checked="" type="checkbox"/>	content_servers	*	<input checked="" type="checkbox"/>	distributed_processing_threshold	100	<input checked="" type="checkbox"/>	max_threads	5	<input checked="" type="checkbox"/>	shared_folder	C:/temp/close_project	<input checked="" type="checkbox"/>		
	Key	Value																		
<input checked="" type="checkbox"/>	content_servers	*																		
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<input checked="" type="checkbox"/>	max_threads	5																		
<input checked="" type="checkbox"/>	shared_folder	C:/temp/close_project																		
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#### Register table - Method Parameters (dm\_dbo.ao\_method\_parameter)

Project Closure job uses the register table, ao\_method\_parameter to define method parameters that are used when running the job.

Use the following to customize the param\_value:

- method\_name – Specifies the method name used to lookup the parameters.
- Param\_name – Specifies the name of the parameter.
- Param\_value – Specifies the value provided for this parameter.
- Param\_value\_datatype – Specifies the Data type of the parameter value.
- Is\_repeating – Specifies that the parameter value can be repeating.
- Is\_required – Specifies that the parameter value is required.
- In\_active – Specifies that the parameter is active or not. Inactive parameter will be ignored by this method.

- Close Project Method (`EPFMACloseProjectMethod`) parameters.

Run this method to find queued project and its content to be saved back to Operations. By default, this method will run disable project and move project folder upon all documents are successfully saved back to Operations.

The following are the configurable run\* parameters:

- `del_relation_names` – Specifies the name of Relation system that will delete when document is successfully saved.
- `Disable_project_method` – Specifies the name of the Disable Project Method.
- `error_project_state` – Specifies that the system promotes the project to this state when there is an error.
- `Move_project_folder_method` – Specifies the name of the Move Project Folder method.
- `Preserve_last_modifier` – If this value is set to true, system will preserve the last modifier name.
- `Qualifier` – Specifies the query to determine the list of project documents to be processed.
- `run_disable_project` – If this value is set to true, system will run the disable project method.
- `run_move_project_folder` – If this value is set to true, system will run the move project folder method.
- `success_project_state` – System promotes project to this state when all docs are completed.
- `Task_validation_query` – Specifies the validation query to be verified against the project document prior to save back to operations.
- `Task_validations` – Specifies the name of uniqueness config (separated by colon) to be verified against the project document prior to save back to operations.
- `Repeating delimiter` – Specifies the repeating value delimiter.
- `Verbose` – If this value is set to true, you can view the resulting object error log in console.

- *Disable Project (EPFMADisableProjectMethod) parameters*

Using this method you can perform the following:

- Update the creation profile with the matching project name, and update the owning group so the current project author will no longer allow creating any new project content.
- Update the taxonomy(s) specified and remove reference of the project number or title.
- Update the dictionary(s) specified and make project number or title `is_enabled=false`.

- Cleanup\_creation\_profile\_naming: Specifies the naming convention system used to locate the creation profile for the project. The attribute will be resolved using the ao\_project\_config.
  - Cleanup\_project\_attributes: Value of the attributes use to disable dictionary and taxonomy.
  - New\_create\_profile\_group: New owning group of the project creation profile where system will try to reassign.
  - Disable\_project\_dictionary: Dictionaries where the system removes values of project attributes.
  - Disable\_project\_taxonomy: Specifies the taxonomy where system removes values of project attributes.
  - Repeating\_delimiter: Specifies the delimiter character to use to separate multiple values.
- *Move Project (EPFMAMoveProjectFolderMethod) parameters*

This method moves the project folder structure to a close project location. The target location is defined on update\_folder parameter.

By default, update\_folder has the following values:

- /Active Projects/\$lookup('\$value(ao\_asset\_facility)', 'Asset\_Facility', 'en')/\$value(ao\_project\_number)-\$value(ao\_project\_title)  
=> /{AO General Folder Security Model=dm\_dbo}Closed Projects/{ao\_folder=AO General Folder Security Model=dm\_dbo}{\$lookup('\$value(ao\_asset\_facility)', 'Asset\_Facility', 'en)'), 'STRING', 1, 1, 1, 'Specify the list of folders to be moved or renamed. Each entry should be in the form folder-path => new-folder-path. If the target folder already exists, the folder contents are merged. If a DQL qualifier is used, the results should be dm\_folder or sub-type. You can use \$-expressions to refer to attributes of the source object. You can also use @-expressions to refer to attributes of the target folder.')}
- The source and target folder are separated by =>.
- The value inside {} will be transcoded to determine the folder object type\*, the acl name and acl\_domain used to create that folder level; The values inside the {} are separated by =(equals) to separate folder object type and info. Folder object type are not needed when it is the first level (cabinet).
- The value after the {} are the name of the folder.
- \$value(attribute\_name) will be transcoded from the attribute value of the project config object.
- \$lookup (attr\_value, dictionary\_name, aliasOrLocale) fetches from the dictionaries' alias or locale specified.

## 16.2 Managing Project Documents

OpenText Documentum CM for Engineering supports creating new project documents, or copies of operational document in an active project. Each project document or project working copy is revisable internally or by external parties. After you select internal or external, required lifecycle and associated workflow apply.

Members defined in the project configuration can access by document state and selection in workflow processes. To save the documents back to operations, you can tag the documents as reference. The following details explain the creation and management of project documents and working copies through their lifecycle states and workflow processes.

The following topics describe the project transmittal configurations:

### 16.2.1 Authoring Project Documents

Project authors create project documents by using the following two ways:

- Navigate to a project folder, and create or import a new project document
- Create a working copy for an operations document assigned to the author's active project

By creating projects in OpenText Documentum CM for Engineering, the project documents reflect the project area. Author is any author member of the project's configuration. A project author can create internal or external project documents or project working copy. In addition, project author can provide the required access, lifecycle and workflow process for internal or external revisions.

The following are the ao\_document properties to capture the project document settings:

Property	Format	Purpose
ao_not_Asset Operationssaved_in_ops	BOOLEAN	FALSE if this project document saves to operations on project closure. Some project contractual documents or reference documents do not require saving back to operations.
ao_doc_type_ classification	String(64)	Specifies that the existing property maps to the AO MP Document Source dictionary and captures if the document's revision is Internal or External.

Property	Format	Purpose
eif_issue_reason	String(64)	Specifies the existing property maps to the AO MP Issue Reason dictionary capturing issue reasons for a project document (IFA, IFC or IFR keys for Issued for Approval, Issued for Construction, and Issued for Review.
ao_project_title	String(64)	Specifies the project name of this project. The values are retrieved from AO Minor Projects dictionary of AO MP Facility Project taxonomy.
ao_project_number	String(32)	Specifies the project number of this project. Number alias of AO Minor Projects dictionary values.
ao_project_owners	String(48) REP	Specifies the list of project owners for this project selected from users or groups in/under <code>project_group</code> <code>dm_group</code> .
ao_project_type	String(32)	Supports project templates based upon enumerated (and contained) project types. Mapped to AO MP Project Type dictionary with values: Calibration, Inspection, Maintenance, and Repair.
ao_wf_preparers	String(48) REP	Selected preparers from project authors to prepare internal project documents.
ao_wf_reviewers	String(48)	Selected reviewers or verifiers from project reviewers to review external or internal project documents, respectively.
ao_wf_lead_reviewer	String(48) REP	Selected lead reviewer from project reviewers to review external project documents.
ao_wf_approvers	String(48) REP	Selected approvers from project approvers to approve internal or external project documents.

You must create project based creation profiles for displaying correct creation profile for authored project documents.

To control the document creation for each project, a matching creation profile is required. Each project creation profile matches the name of the project that reflects in the root project folder. The project folder is configured as `ao_project_number` followed by dash and `ao_project_title`.

In addition, the Folder properties used for creation must be `object_name`. This configuration results in a creation profile that will be displayed, whenever a project author creates a new content or imports an existing content.

The project creation profile has:

- A name matching the name of the project folder (`ao_project_number-ao_project_title`)
- Folder properties used for creation set to `object_name`
- A label matching the project name: Displayed to the author during content creation or import.
- Available for: Create and Import
- User group: A defined group for all project authors. For example, `ao_doc_authors`



**Note:** Providing project based author user groups may not be scalable. A validator for project document verifies if a user is a member of the project configuration authors group.

Initially, each project document applies the AO MP New Document Lifecycle.

AO MP New Document Lifecycle enables the document to save in the Draft of As Submitted lifecycle state based upon the mandatory selection of `ao_doc_type_classification`.

The AO External Project Document context (`document_type = Project Document` and `ao_doc_type_classification = External`) applies the AO External Project Document Lifecycle to the new document.

The result of this setup is only one creation profile ever appears to the project author.

After you select the document and perform internal or external revision, the required lifecycle manages the document.

## 16.2.2 Authoring Project Document Configurations and Access

OpenText Documentum CM for Engineering defines an MP Document parent context of type `ao_document` and condition `document_type = Project Document` (applied default) for all project document configurations. Two sub-contexts, AO Project Document External and AO Project Document Internal, further refine the context condition by `ao_doc_type_classification = External` or `ao_doc_type_classification = Internal`, respectively. Each context defines applied naming, properties, inheritance, security, linking, templates, check-in, lifecycle, workflow, uniqueness checks, auditing, viewing, and O2 transfer settings.

The following table shows the configurations applied to internally revised (AO Project Document Internal context) and externally revised (AO Project Document External context) project documents:

Configuration Type	Configuration	Internal Documents	External Documents
Auto Naming	AO MP CDN	X	X
AO MO Document Name	X	X	
Property Page	AO MP Project Document Property Page	X	X
Inheritance	AO MP Document Inheritance	X	X
Auto Link	AO MP Project Document Auto Link	X	X
Template	AO MP Template	X	X
Check-in	Automatically check-in documents as new minor version and request PDF rendition.	X	X
Auditing	Auditing Project Documents	X	X
Viewing (C2)	AO MP Document View	X	X
Transfer (O2)	AO MP O2 Transfer	X	X
Security	AO MP External Document Security		X
AO MP Project Document Security	X		
Lifecycle	AO External Project Document Lifecycle		X

Configuration Type	Configuration	Internal Documents	External Documents
AO Internal Project Document Lifecycle	X		
Workflow	Prepare Verify Approve Project Documents	X	
Verify Approve Project Documents	X		
Review External Documents		X	
Uniqueness Check	Validate project config is active	X	X
Validate user is Project Author		X	

The differences in settings for Internal versus External project documents are:

- Applied lifecycle that reflects the different lifecycle states and sequence.
- Applied security that reflects the differing lifecycle states
- Enabled workflows
- Uniqueness checks (Confirm Validate user is Project Author for External and no uniqueness check is applied in prototype).



**Note:** Internal document workflows are only enabled for Draft status documents.

### 16.2.2.1 Access and Properties Assigned to Project Folders

The AO MP Folder Security is applied to each project folder grants WRITE access to project\_group. The security applied to each project document reflects project defined controllers, owners, authors, readers, reviewer, approvers, and selected workflow participants.

Project member selection is from the same project\_group and workflow members are selected from the corresponding project role members.

Hence, by using a common group of users for project documents selectable by project and role enables each project to define its own project members and resulting document access thereby avoiding additional project groups per project.

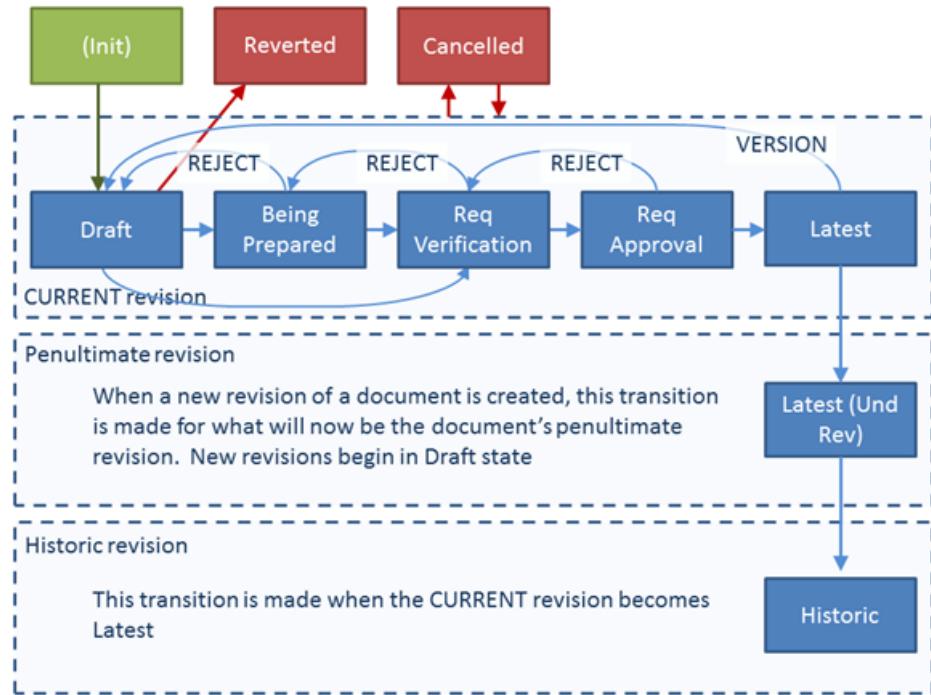
### 16.2.3 Internal Project Documents Applied Lifecycle and Access

Project documents are managed by different lifecycles and through different review or approval processes if they are revised internally or externally.

#### 16.2.3.1 Applied Internal Project Document Lifecycle

The project creation profiles specify AO MP New Document Lifecycle for new project documents.

The following is the Applied Internal Project Document Lifecycle:



The following table explains the internal project document lifecycle:

State	Descriptions
init	Relate document to project configuration and apply project membership and settings. Relate project working copies to source operational document and retain source document number and name.

State	Descriptions
Draft	Specifies the state of all newly created and new versions of internal project documents. Draft documents are sent for preparation, verification, and approval.
Being Prepared	Specifies a document revision being prepared in P-V-A process.
Requires Verification	Specifies a document revision that being verified in P-V-A or V-A process.
Requires Approval	Specifies a document revision being approved in P-V-A or V-A process.
Latest	Specifies the document revision that should be used. This is an approved and unrevised project document.
Latest (Under Revision)	Specifies the second to last document revision when a new revision has been created but is not yet available (latest status).
Historic	Retains prior Latest revisions when the latest revision promotes to latest.
Cancelled	Specifies a document revision that was never issued and is no longer required. All document versions promoted to Cancelled upon cancel and confirmation.
Reverted	Document revision not required and reverted to restore the prior Latest (Und Rev) revision to Latest.

### 16.2.3.2 Applied Internal Project Document Security

AO MP Project Document Security, applied to all ao\_document with document\_type Project Document and ao\_doc\_type\_classification as Internal, grants the following access by role by internal project document lifecycle state.

Role – State	Draft	Being Prepared	Req Verification	Req Approval	Latest	Latest (Und Rev)	Historic	Cancelled	Reverted
doc_co_ordinators	WRITE	READ							
ao_wf_prepares	NONE	VERSION	READ	NONE	NONE				
authors	WRITE	READ							

<b>Role – State</b>	<b>Draft</b>	<b>Being Prepared</b>	<b>Req Verification</b>	<b>Req Approval</b>	<b>Latest</b>	<b>Latest (Und Rev)</b>	<b>Historic</b>	<b>Cancelled</b>	<b>Reverted</b>
ao_wf_reviewers	NONE	VERSION	READ	NONE	NONE				
reviewers	NONE	READ	NONE	NONE					
ao_wf_approvers	NONE	VERSION	READ	NONE	NONE				
approvers	NONE	READ	NONE	NONE					
ao_project_owners	READ	NONE	NONE						
readers	NONE	READ	NONE	NONE					
ao_admins	DELETE								
dm_owner									
dm_world	NONE								

- Doc\_coordinators, authors, reviewers, approvers, readers, and project\_owners are the standard roles of project users. The users reflect the users of the associated project.
- The (ao\_wf\_) preparers, reviewers, and approvers are the document users selected in the prior routing for prepare-verify-approve or verify-approve. Retaining these selections enables proper access for the workflow members and simple re-routing as following workflow member selection start with the prior participants.
- ao\_admins is the default administrative group provided with OpenText Documentum CM for Engineering.
- Owner and World are required in all granted access.

### 16.2.3.3 Internal Project Document Workflow

Draft status Internal Project Documents route on either a Prepare-Verify-Approve or Verify-Approve workflow.

The following ao\_document properties capture internal project document selected workflow users:

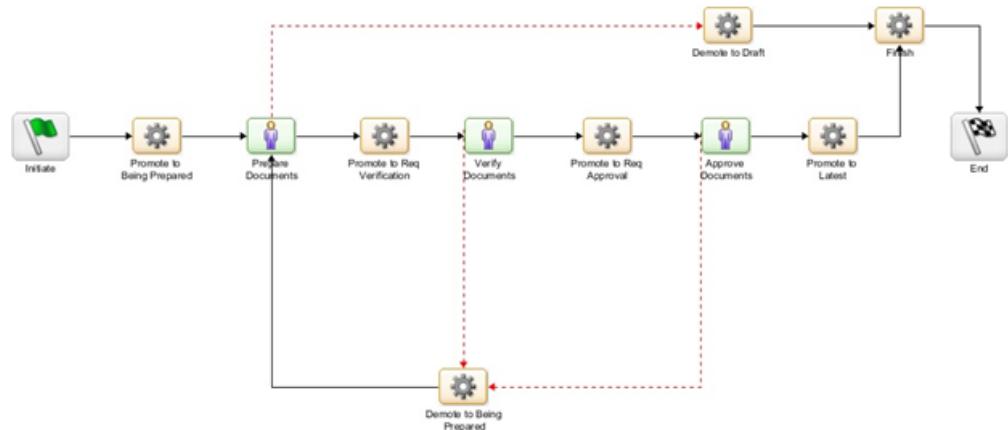
Participant Property	Format	Purpose
ao_wf_preparers	STRING(48) Repeating	Selected authors as preparers in P-V-A workflow.
ao_wf_reviewers	STRING(48) Repeating	Selected reviewers as verifiers in P-V-A and V-A workflows. Selected reviewers in external documents review.
ao_wf_approvers	STRING(48) Repeating	Selected approvers in P-V-A and V-A workflows.

In addition, the time and date preparation, verification, and approval complete saved to the eif\_prepared\_on, eif\_verified\_on, and eif\_approved\_on date properties.

Both workflows' contexts enable their selection for a\_status Draft and ao\_doc\_type\_classification Internal documents.

### 16.2.3.4 Prepare-Verify-Approval Workflow

The following figure illustrates the activities of the Prepare-Verify-Approve workflow:



The aliased role members performing the Prepare Documents, Verify Documents, and Approve Documents activities are:

<b>Alias</b>	<b>Category</b>	<b>Description</b>
MP_preparger	Group	Selected preparers.
MP_verifiers	Group	Selected preparers.
MP_approvers	Group	Selected preparers.

The following table explains the settings of each P-V-A activity:

<b>Activity</b>	<b>Performer</b>	<b>Trigger</b>	<b>Transition</b>
Promote to Being Prepared	Workflow supervisor for D2WFLifeCycleMethod	All input flows	All connected activities.
Prepare Documents	All users in group: MP_preparger delegate the activity's work to other users.	1 out of 2 possible input flows	All performers complete the task. You can start the next activity when all performers complete the work.
Promote to Req Verification	Workflow supervisor for D2WFLifeCycleMethod	All input flows.	All connected activities.
Verify Documents	All users in group: MP_verifiers delegate the activity's work to others.	All input flows	All performers complete the task. Start next activity when all performers complete the work. On Reject, start only reject activity.
Demote to Being Prepared	Workflow supervisor for D2WFLifeCycleMethod	1 out of 2 possible input flows.	All connected activities.
Promote to Req Approval	Workflow supervisor for D2WFLifeCycleMethod	All input flows.	All connected activities.
Approve Documents	All users in group: MP_approvers delegate the activity's work to others.	All input flows.	All performers complete the task. Start next activity when all performers complete the work. On Reject, start only reject activity.

Activity	Performer	Trigger	Transition
Demote to Draft	Workflow supervisor for D2WFLifeCycleMethod.	All input flows.	All connected activities.
Promote to Latest	Workflow supervisor for D2WFLifeCycleMethod.	All input flows.	All connected activities.
Finish	Workflow supervisor for dm_noop_auto_method	1 out of 2 possible input flows.	All connected activities.

The performer dialog displays when commencing the P-V-A workflow and has the following settings to select valid performers:

Label	Participant	Default	Linked Attribute	Row Numbers
Preparers	MP_preparer_aliases	\$value(ao_wf_prepares)	ao_wf_prepares	6
	Selection query: select authors from ao_project_config where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc			
Verifiers	MP_verifier_aliases	\$value(ao_wf_reviewers)	ao_wf_reviewers	6
	Selection query: select reviewers from ao_project_configuration where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc			
Approvers	MP_approver_aliases	\$value(ao_wf_approvers)	ao_wf_approvers	6

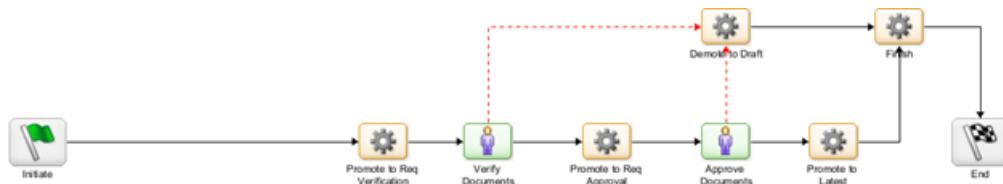
Label	Participant	Default	Linked Attribute	Row Numbers
	<pre>1 Selection query: select approvers from ao_project_config where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc</pre>			

This configuration for workflow participants has the following advantages:

- The ao\_wf linked attribute displays the previously selected members by default.
- No additional changes required for re-routing to the same members.
- The previously selected performers retain to each document.
- The selection query of selectable participants queries the defined project members of the corresponding project configuration. As a result, when project members are changed, the new members are immediately selectable in all project document review or approval workflows.

#### 16.2.4 Verify Approve Workflow

The following figure illustrates the activities of the Verify-Approver workflow:



The aliased role members performing the Verify Documents and Approve Documents activities are:

Alias	Category	Description
MP_verifiers	Group	Selected verifiers.
MP_approvers	Group	Selected approvers.

The following table captures the settings of each verify approve activity:

Activity	Performer	Trigger	Transition
Promote to Req Verification	Workflow supervisor for D2WFLifeCycleMethod	All input flows.	All connected activities.
Verify Documents	All users in group: (MP_verifiers) Delegate the activity's work to others users.	All input flows.	All performers complete the task. You can start next activity when all performers complete the work. On Reject, you can start only reject activity.
Promote to Req Approval	Workflow supervisor for D2WFLifeCycleMethod.	All input flows.	All connected activities.
Approve Documents	All users in group: (MP_approvers) Delegate the activity's work to others users.	All input flows.	All performers complete the task. Start next activity when all performers complete the work. On Reject, start only reject activity.
Demote to Draft	Workflow supervisor for D2WFLifeCycleMethod.	1 out of 2 possible input flows.	All connected activities.
Promote to Latest	Workflow supervisor for D2WFLifeCycleMethod.	All input flows.	All connected activities.
Finish	Workflow supervisor for dm_noop_auto_method	1 out of 2 possible input flows.	All connected activities.

The performer dialog displays when commencing the P-V-A workflow and has the following settings to select valid performers:

Label	Participant	Default	Linked Attribute	Row Numbers
Verifiers	MP_verifier_aliases	\$value(ao_wf_verifiers)	ao_wf_verifiers	6

Label	Participant	Default	Linked Attribute	Row Numbers
Selection query: select reviewers from ao_project_config where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc				
Approvers	MP_approver_aliases	\$value(ao_wf_approvers)	ao_wf_approvers	6
Selection query: select approvers from ao_project_config where ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' order by 1 desc				

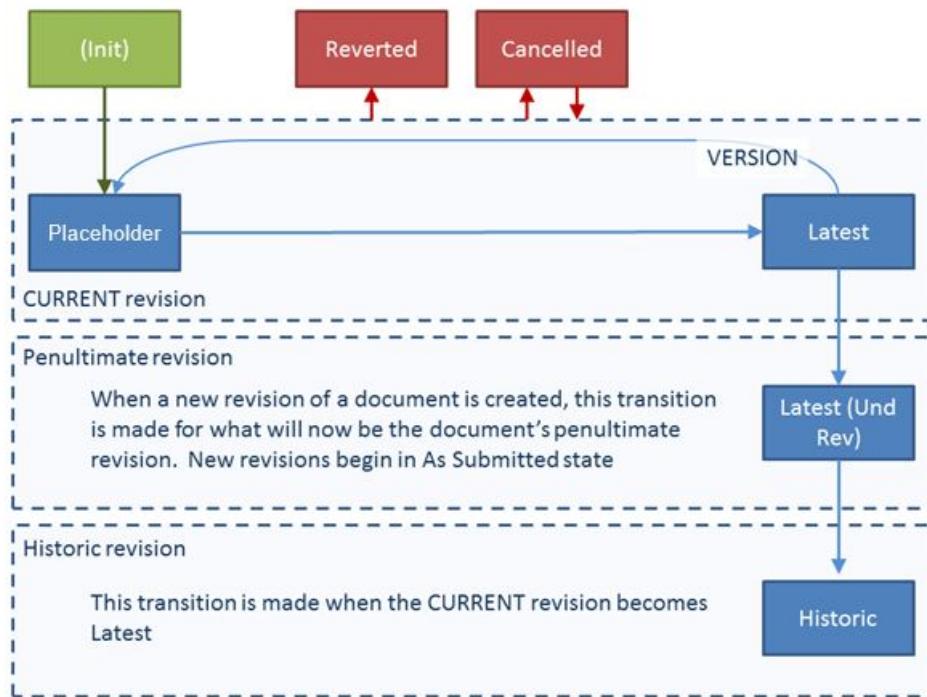
This configuration for workflow preparers has the following advantages:

- The ao\_wf linked attribute displays the prior selected members by default. No additional changes required for re-routing to the same members.
- The previously selected performers retain to each document.
- The selection query of selectable participants queries the defined project members of the corresponding project configuration. As a result, when project members are changed, the new members are immediately selectable in all project document review/approval workflows.

## 16.2.5 External Project Documents Applied Lifecycle and Access

### 16.2.5.1 Applied External Project Document Lifecycle

The following figure illustrates the sequence of lifecycle states and transitions for externally revised project documents:



State	Description
(init)	Initialize relations to source document and project configuration.
Placeholder	Original or new version of external document.
Latest	Approved current version for consumption.
Latest (Und Rev)	Approved non-current version for consumption.
Historic	Prior approved document version.
Cancelled	Cancelled document versions (all).
Reverted	Revert to Placeholder version.

State	Description
Submitted	This state occurs when the document is shared to Core Collaboration for Engineering.
Queued	
Revised	This state occurs when the document is returned from Core Collaboration for Engineering with comments.
For Review	This state occurs when the document is part of the review workflow.
Reviewed	This state occurs when the document is consolidated.
In Consolidation	This state occurs when the document is reviewed and ready for comment consolidation.
Invalid	This state indicates that an error has occurred when you share the document with Core Collaboration for Engineering.
Sent to Ops	During this state document is shared with Supplier in Core Collaboration for Engineering.

### 16.2.5.2 Applied External Project Document Security

AO MP External Document Security, applied to all ao\_document with document\_type Project Document and ao\_doc\_type\_classification External, grants the following access by role by internal project document lifecycle state:

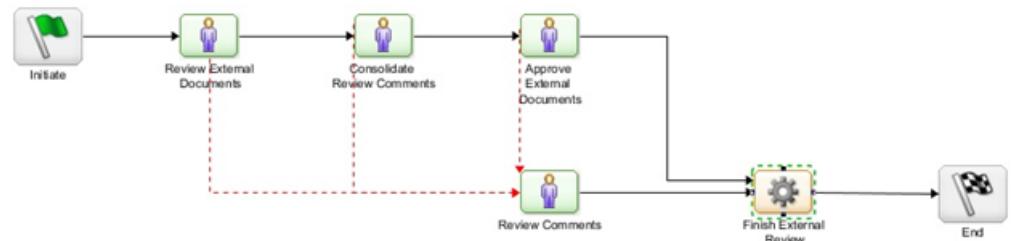
Role – State	Placeholder	Latest	Latest (Und Rev)	Historic	Cancelled	Reverted
doc_coordinators	WRITE	READ				
authors	READ					
ao_wf_reviewers	RELATE	READ				
ao_wf_lead_reviewer	RELATE	READ				
ao_wf_approvers	RELATE	READ				
consolidators	WRITE	READ				
reviewers	NONE	READ	NONE			
approvers	NONE	READ	READ			

Role – State	Placeholder	Latest	Latest (Und Rev)	Historic	Cancelled	Reverted
project_owners	READ					
readers	NONE	READ	NONE			
ao_admins (group)	DELETE					
dm_owner	NA	NA	NA			
dm_world	NONE					

- doc\_coordinators, authors, reviewers, approvers, readers and project\_owners are the standard roles of project users. The users reflect the users of the associated project.
- ao\_wf\_reviewers, lead reviewer, and approvers are the document users selected in the prior routing for external document review. Retaining these selections enables proper access for the workflow members and simple re-routing as following workflow member selection start with the prior participants.
- ao\_admins is the default administrative group provided with OpenText Documentum CM for Engineering.
- Owner and World are required in all granted access.

### 16.2.5.3 External Project Document Review Workflow

The following figure illustrates the activities for the external review workflow:



The aliased role members performing the external review workflow activities are:

Alias	Category	Description
MP_reviewers	Group	Selected reviewers.
MP_lead_review	User	Selected lead reviewer.
MP_approvers	Group	Selected approvers.

The following table captures the settings of each external document review activity:

Activity	Performer	Trigger	Transition
Review External Documents	All users in group (MP_reviewers) <ul style="list-style-type: none"> <li>• Work performed by one or more manual performers.</li> <li>• Delegate the activity's work to someone else selected with option assign to original performer if auto delegate fails.</li> </ul>	All input flows are selected.	Performer can select the next activities. Select up to 1 next activities. Complete activity when all performers complete the task. If both reject and forward selected, start only rejected.
Consolidate Review Comments	(MP_lead_reviewer) <ul style="list-style-type: none"> <li>• Work performed by one or more manual performers.</li> <li>• Delegate the activity's work to someone else selected with option assign to original performer if auto delegate fails.</li> </ul>	All input flows are selected.	Performer can select the next activities. Select up to 1 next activities. Complete activity when all performers complete the task. If both reject and forward selected, start only rejected.
Approve External Comments	All users in group (MP_approvers). <ul style="list-style-type: none"> <li>• Work performed by one or more manual performers.</li> <li>• Delegate the activity's work to someone else selected with option assign to original performer if auto delegate fails.</li> </ul>	All input flows.	Performer select the next activities. Select up to 1 next activities. Complete activity when all performers complete the task. If both reject and forward selected, start only rejected.

Activity	Performer	Trigger	Transition
Review Comments	<p>Workflow supervisor</p> <ul style="list-style-type: none"> <li>• Work performed by one or more manual performers.</li> <li>• Delegation is not enabled.</li> <li>• Repeat activity is not enabled.</li> </ul>	1 out of 3 possible flows selected.	Select all connected activities.
Finish External Review	Workflow supervisor for dm_noop_auto_method.	1 out of 2 possible input flows.	All connected activities.

The performer dialog displays when commencing the P-V-A workflow and has the following settings to select valid performers:

Label	Participant	Default	Linked Attribute	Row Numbers
Reviewers	MP_reviewers	\$value(ao_wf_reviewers)	ao_wf_reviewers	6
Selection query:				
	<pre> 1 select reviewers from ao_project_config where any reviewers in(select reviewers from ao_document where r_object_id='\$value(r_object_id)' ) and ao_project_number = '\$value(ao_project_number)' and ao_project_title = '\$value(ao_project_title)' enable (row_based) </pre>			
Lead Reviewer	MP_lead_review	\$value(consolidators)	consolidators	NA

Label	Participant	Default	Linked Attribute	Row Numbers
Selection query: <pre>select reviewers from ao_project_config where any reviewers in(select reviewers from ao_document where r_object_id='\\$value(r_object_id)' ) and ao_project_number = '\\$value(ao_project_number)' and ao_project_title = '\\$value(ao_project_title)' enable (row_based)</pre>				
Approvers	MP_approvers	\$value(ao_wf_approvers)	ao_wf_approvers	6
Selection query: <pre>select approvers from ao_project_config where any reviewers in(select reviewers from ao_document where r_object_id='\\$value(r_object_id)' ) and ao_project_number = '\\$value(ao_project_number)' and ao_project_title = '\\$value(ao_project_title)' enable (row_based)</pre>				

This configuration for workflow participants has the following advantages:

- The ao\_wf linked attribute displays the prior selected members by default. No additional changes required for re-routing to the same members.
- The previously selected performers retain to each document.

The selection query of selectable participants queries the defined project members of the corresponding project configuration. As a result, when project members are

changed, the new members are immediately selectable in all project document review/approval workflows.

### 16.2.6 Creating a Project Working Copy

Project working copy is a copy of an operational document saved to an active project, for the same facility as the source operational document. Here, coordinator is a member of the project controller (doc\_coordinators).

You can create only one project working copy for any project. A project working copy can be revised internally or externally based on the mandatory source property selection.

The Operations keywords includes AO Working Copy, presenting the creation profile and Project Working Copy AO Documentum Type to all members in the ao\_doc\_coordinators group when the Operations is selected.

The following are the ao\_working\_copy properties:

Property	Format	Description
<i>ao_not_saved_in_ops</i>		If you specify FALSE, project working copy saves to operations during project closure. You need not save certain project contractual documents or reference documents back to operations.
<i>ao_doc_type_classification</i>		Specifies if the existing property maps to the AO MP Document Source dictionary and captures if the working copy revisions are Internal or External.
<i>eif_issue_reason</i>		Specifies if the existing property maps to the AO MP Issue Reason dictionary capturing issue reasons for a project document (IFA, IFC or IFR keys for Issued for Approval, Issued for Construction, and Issued for Review).
<i>ao_project_title</i>		Specifies the project name of this project. The values are retrieved from AO Minor Projects dictionary of AO MP Facility Project taxonomy.

Property	Format	Description
<i>ao_project_number</i>		Specifies the project number of this project. Number alias of AO Minor Projects dictionary values.
<i>ao_project_owners</i>		Specifies the list of project owners for this project selected from users or groups in/under project_group dm_group.
<i>ao_project_type</i>		Supports project templates based upon enumerated (and contained) project types. Mapped to AO MP Project Type dictionary with values such as Calibration, Inspection, Maintenance, and Repair.
<i>ao_wf_preparers</i>		Selected preparers from project authors to prepare internal project documents.
<i>ao_wf_reviewers</i>	String(48)	Selected reviewers or verifiers from project reviewers to review external or internal project documents, respectively.
<i>ao_wf_lead_reviewer</i>	String(48) REP	Selected lead reviewer from project reviewers to review external project documents.
<i>ao_wf_approvers</i>	String(48) REP	Selected approvers from project approvers to approve internal or external project documents.
<i>ao_working_copy_number</i>	String(64)	Specifies the generated working copy number.
<i>ao_working_copy_due_date</i>	TIME	Specifies the date the working copy must be completed.

### 16.2.6.1 Applied Common Working Copy Configurations

The configurations apply to all working copy documents that are selected in the parent Project working Copy context or for both the child contexts, AO Project Working Copy External and AO Project Working Copy Internal.

The applied configurations are:

Configuration Category	Configuration Name
Auto Naming	AO MP WC Name AO MP Working Copy CDN
Auto Link	AO MP Project Working Copy Auto Link
Inheritance	AO MP Working Copy Inheritance
Check-in	Automatically check-in documents as new minor version and request PDF.
Uniqueness Check	Project Working Copy Exists
Audit	Auditing Project Documents
View Configuration	AO MP Document View

Based on the source (ao\_doc\_type\_category) value of Internal or External, different security, lifecycle , and workflow apply to the project working copies:

Configuration	AO Project Working Copy External	AO Project Working Copy Internal
Security	AO MP External Document Security	AO MP Project Document Security
Lifecycle	AO External Project Document Lifecycle	AO Internal Project Document Lifecycle
Workflow	Review External Documents	Prepare Verify Approve Project DocumentsVerify Approver Project Documents

#### 16.2.6.1.1 Updating Asset Operations Project Working Copy Update Config Dictionary

This OpenText Documentum CM for Engineering Project Working Copy Update Config (AO PWC Update Config) dictionary contains the details of Operations document type as key and their accepted lifecycle state as alias.

1. In client configuration, select **Data > Dictionary** and select **AO PWC Update Config**.
2. In the lower section, click the **Alias** tab and specify the values for the columns in **Final State** row.
  - **Key:** Provide the Operations document type.

- **Final State:** Provide the acceptable state of the operations document using which the project working copy can be updated. For example: Effective (single value)

### 16.2.6.2 Customizing AO Working Copy Creation Profile

AO Working Copy simplifies creation of project working copies the following ways:

- All members of ao\_doc\_coordinators can create project working copies.
- Selection of the Operations or any lower location enables the creation profile.
- The same object type is created for project working copies that is ao\_working\_copy.

You can adapt the creation profiles in the following ways:

- Create a new creation profile from AO Working Copy.
- Change creation profile properties.



**Note:** You can rename label or folder properties.

- Change the type created. You can:
  - Add additional owner-operator properties to working copies, it is recommended that the same ao\_document/ao\_working\_copy pattern be used.
  - Extend the same owner-operator properties to their ao\_document extension and ao\_working\_copy. (This is a not a recommended approach.) Instead, create a working copy sub-type from the owner-operator document type and add the required source document properties (Refer to “[Creating a Project Working Copy](#)” on page 417 section.). This allows the same security, lifecycle, and workflow to for project documents and project working copies.
- Apply an O2 configuration to map object properties to Word document instances.
- Change the displayed property page reflecting owner-operator properties or different selection values.
- Change the initial version (Recommended initial version is 0.1. First Latest version is 1.0.)
- Change the inheritance that reflects additional owner-operator document properties.
- Change the default values applying owner-operator specific properties values or defaults.
- The initial AO Internal Project Document Lifecycle is a generic lifecycle that enables applying an internal or external lifecycle afterwards based on the selection of ao\_doc\_type\_category. This lifecycle configuration is recommended for enabling internal and external revisions.
- Change creation properties for an artifact within an existing creation profile.

- Add additional artifacts to an existing creation profile.
- Remove artifacts from an existing creation profile.

## 16.3 Managing Project Transmittals

The following topics describe the project transmittal configurations in OpenText Documentum CM for Engineering:

### 16.3.1 Transmittal Dictionaries

The following table displays OpenText Documentum CM client dictionaries that are used by the Transmittal. You can add or remove values for some of these dictionaries as per your customization requirement.

Dictionary Name	Purpose	Modify (Yes/No)
Transmittal Issue Reason	Provides a list of transmittal issue reasons.	Yes
AO Transmittal Recipient Companies	Provides a list of company names to which the external recipients belong.	Yes
Transmittal Recipient Status	Provides a status of transmittal delivery to the recipients.	Yes
AO Transmittal Recipient Groups	Provides a list of group names to which the external recipients are part of.	Yes
AO Transmittal Recipient Names	Provides a list of recipient names.	Yes
AO Transmittal Recipient Emails	Provides a list of recipient emails.	Yes
Transmittal Delivery Methods	Provides a list of supported delivery mechanism for transmittal. For example, Email Attachment, and Email Link.	No
Transmittal Document Relations	Specifies relation names used to relate transmittal and documents.	No
Transmittal Document Status		No
Transmittal Documents Output Format	Specifies values such as PDF, Source and PDF, to indicate the type of document content (primary or rendition) to be included in transmittal package.	No

Dictionary Name	Purpose	Modify (Yes/No)
Transmittal Category	Provides a list of transmittal categories such as general transmittal, project transmittal, incoming transmittal.	No
Transmittal Recipient Type	Specifies a value to indicate internal or external recipient.	No

### 16.3.2 Transmittal Taxonomy

AO MP Transmittal Recipients taxonomy manages transmittal recipients based on the following structure:

*Company -> Group -> Name -> Email*

### 16.3.3 Customizing Extended Creation Profiles

You can customize extended creation profiles in the following ways:

- Create a new extended creation profile.
- Change extended creation profile properties.
- Change extended creation properties for an artifact within an existing creation profile.
- Add additional artifacts to an existing extended creation profile.
- Remove artifacts from an existing extended creation profile.
- Remove or disable an existing extended creation profile.

### 16.3.4 Project Transmittal Template

The following table lists the client configuration elements that are used by the Project Transmittal Template. When customizing the client configuration to address customer-specific business requirements, these client configuration must not be renamed or removed from the OpenText Documentum CM for Engineering. These configurations are used by the methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO MP Project Template Property Page
Inheritance	AO Transmittal Inheritance
Security	AO Transmittal Template Security Template
Auto link	AO MP Project Transmittal Templates Auto Link

Configuration Category	Configuration Name
Default value template	AO MP Project Transmittal Template Default Values
Extended Creation Profile	Project Transmittal
Lifecycle	AO MP Transmittal Template Lifecycle

#### 16.3.4.1 Applied Project Transmittal Template Default Values

A pertinent Default Values template is assigned to each project transmittal template within the creation profiles. The following figure is an example of a Default Values template, which is assigned to Project Transmittal Template:

**Properties**

Name :*	AO MP Project Transmittal Template Default Values
Description :	<input type="text"/>

Properties*	Default values ?
ao_tr_category	Project Transmittal Template
authors	\$USER,ao_doc_coordinators
category	-1
document_type	Project Transmittal Template
domain	AO
form_managers	\$USER,ao_doc_coordinators
form_users	ao_doc_coordinators
group_name	ao
object_name	New Project Transmittal Template

#### 16.3.4.2 Applied Project Transmittal Template Security

This section describes the security model used while creating Project Transmittal template in Projects. Here, AO\_admin and dm\_owner has permission to delete a project transmittal template.

### 16.3.5 Project Transmittal

The following table lists the client configuration elements that are used by the Project Transmittal. When customizing the client configuration to address customer-specific business requirements, these client configuration must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Auto naming	AO MP Project Transmittal Naming
Property Page	AO MP Advanced Transmittal Properties Page
Inheritance	AO MP Transmittal Inheritance
Security	AO Transmittal Security Template
Auto link	AO MP Project Transmittal Auto Link
Default value template	AO MP Project Transmittal Default Values
Extended Creation Profile	Project Transmittal
Lifecycle	AO MP Transmittal Lifecycle

#### 16.3.5.1 Applied Project Transmittal Default Values

A pertinent Default Values template is assigned to each project transmittal within the creation profiles. The following image is an example of a Default Values template, which is assigned to Project transmittal:

Properties*	Default values ?
ao_tr_category	Project Transmittal
category	0
document_type	Project Transmittal
domain	AO
form_users	project_groups
group_name	ao
object_name	Auto Generated

### 16.3.5.2 Applied Project Transmittal Security

This section describes the security model used while creating Project Transmittal in Projects. AO transmittal security is reused for project transmittals. Here, `ao_admin` and `dm_owner` has permission to delete a project transmittal.

### 16.3.6 Project Transmittal Coversheet

Project transmittal coversheet is a content template used to generate transmittal coversheets. The coversheets are imported into project facility by `ao_doc_` coordinators. The author of the sheet can make the sheet effective. There is no review process involved to make it effective. By default, the applicable artifacts are **Project Transmittal** and **Project Transmittal Template**.

Configuration Category	Configuration Name
Context	Project Transmittal Coversheet Template
Property Page	AO MP Content Templates
Inheritance	AO MP Folder Inheritance
Security	AO MP Content Template Security
Auto links	AO MP Transmittal Templates Auto Link
Lifecycle	AO Content Template Lifecycle

### 16.3.6.1 Content Format

The AO solutions supports import of coversheets in msw format (.doc files). During import, select the format value from dropdown as MS Word 4.x, 5.x (DOS) or MS Word Document 2007/2010/2013/2016.

### 16.3.6.2 Modify Coversheet Templates

For more information about modifying coversheet, see “Configuring a Coversheet Template” on page 201 section.

## 16.3.7 Project Distribution List

The following table lists the applied configuration elements that are used by the Project Distribution List. When customizing the applied configurations to address customer-specific business requirements, these applied configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO MP Distribution list Template Properties, AO MP Edit Distribution list Template Properties
Inheritance	AO MP Distribution List Inheritance
Security	AO Distribution list Security Template
Auto link	AO MP Distribution Lists
Default value template	AO MP Distribution List Default Values
Extended Creation Profile	Project Transmittal
Taxonomy/Dictionary	AO MP Transmittal Recipients, AO Transmittal Recipient Companies, AO Transmittal Recipient Emails, AO Transmittal Recipient Groups, AO Transmittal Recipient Names.
Lifecycle	AO MP Distribution List Lifecycle

### 16.3.7.1 Applied Distribution List Default Values

A pertinent Default Values template is assigned to each distribution list within the creation profiles. The following image is an example of a Default Values template, which is assigned to Project Folder:

Properties*	Default values ?
ao_doc_type_name	Project Distribution List
category	0
document_type	Project Distribution List
domain	AO
form_managers	\$USER
form_users	project_groups
group_name	ao

## 16.4 Send Project Transmittal

Using Project transmittals, you can package a set of reviewed external documents and reference documents and send these to a distribution list. The distribution list can contain external and or internal recipients. The following items are packaged during a send operation:

- Transmittal coversheet
- Transmittal documents (Contains source document if you select **Include Document Primary Content**)
- Reference Documents (These are effective documents in OpenText Documentum CM for Engineering.)
- A zip package contains the following documents for every transmittal document:
  - A document review summary PDF that contains a summary of comments.
  - An annotated PDF that contains comments and markups.

The generated zip package is added as a rendition of the project transmittal and the generated coversheet becomes the primary content of the transmittal

The following topics describe the send project transmittal configurations:

- “[Applied Send Transmittal Configurations](#)” on page 428
- “[Server Method](#)” on page 429
- Delivery Method: The available delivery methods are **Email Link**, **Email Attachment**, and **Hard Copy**.

### 16.4.1 Applied Send Transmittal Configurations

The following table lists the configuration elements that are used in processing of transmittal:

Configuration Category	Configuration Name
Lifecycle	AO MP Transmittal Lifecycle
Context	AO MP Transmittals To be Processed
	AO MP Transmittal Promote to Ack
	AO MP Transmittals Awaiting Ack
	AO MP Transmittals Awaiting Resp but not Ack
	AO MP Transmittals to be Completed
	AO MP Transmittal promotes to Invalid
Lifecycle Batch	AO MP Initiate Queued Transmittal Processing
	AO MP Mark Transmittal Ack
	AO MP Mark Transmittal as Awaiting Acknowledgement
	AO MP Mark Transmittal as Awaiting Response
	AO MP Mark Transmittal as Completed
	AO MP Mark Transmittal Invalid
Mailing List	Notify of failed transmittal zip package creation

## 16.4.2 Server Method

The transmittal lifecycle in Queued state invokes EPFMAGenerateCommentPackage method to generate a comment package. The comment package contains a document summary PDF and annotated PDF with comments and markup for documents.

The following are the arguments for EPFMAGenerateCommentPackage method:

Argument	Default Value	Description	Mandatory(M) / Optional(O)
<code>-relation_names</code>	Transmittal Document	Specifies the name of the relation between a project document and project transmittal. Supports comma separated multiple relation names.	M
<code>-incl_comment_status</code>	New, Open	Specifies the names of document comment states to be included in review summary and annotated PDF. Supported values are: <ul style="list-style-type: none"> <li>• New</li> <li>• Open</li> <li>• Closed</li> <li>• Rejected</li> </ul>	M
<code>-process_status_at</code>	LogEntry	Specifies the attribute that contains the package generation status.  If the default value is changed to another attribute , modify the condition in the context A0 MP Transmittals To be Processed to use the new attribute. Change the log_entry predicate key to the new parameter value.	M

Argument	Default Value	Description	Mandatory(M) / Optional(O)
<code>-is_parent</code>	False	Indicates if the project transmittal is a parent in relationship with the document.	M
<code>-if</code>	None	Provide a DQL precondition which will decide if the method is to be executed or not.	O
<code>-date_format</code>	dd MMMM, yyyy	Specifies a date format to use in review summary PDF and annotated PDF.	O

## 16.5 Blazon Server Details

The comment package generation uses Blazon to create PDF renditions for transmittal documents.

OpenText Documentum CM for Engineering can create annotated PDF with markup as comments while sending a project transmittal. You can enable this option by configuring the Blazon server in the OpenText Documentum CM client dictionary.

Update the dictionary as described in the following table:

Dictionary	Description
<b>Name</b>	Transmittal Comment Config
<b>Key</b>	Comment Config
Use the following alias:	You can use a Blazon base URL. For example: <a href="http://blazonServer:8090/QueueServer/push.aspx">http://blazonServer:8090/QueueServer/push.aspx</a>
<ul style="list-style-type: none"> <li>• <b>URL</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Time Out</b></li> </ul>	Maximum time (in milliseconds) till when the transmittal processor waits for PDF rendition by Blazon, after the timeout method throws an exception.
<ul style="list-style-type: none"> <li>• <b>Source Location</b></li> </ul>	The source documents will be exported to this root folder. To set the source location, refer to Setting up Blazon on Windows section in <b>OpenText Documentum CM for Engineering Installation Guide</b> .

Dictionary	Description
<ul style="list-style-type: none"> <li>• <b>Publish Location</b></li> </ul>	<p>The generated PDF can be saved in this folder.</p> <p>To set the publish location, refer to Setting up Blazon on Windows section in <b>OpenText Documentum CM for Engineering Installation Guide</b>.</p>
<ul style="list-style-type: none"> <li>• <b>Implementation Class</b></li> </ul>	<p>For Blazon integration, you must use <code>com.documentum.epfma.transmittals.sheets.blazon.AnnotatedDocumentGenerator</code></p>
<ul style="list-style-type: none"> <li>• <b>Version Filter</b> <ul style="list-style-type: none"> <li>– <b>CURRENT</b></li> </ul> </li> <li>• <b>REVISION</b></li> <li>• <b>ALL</b></li> <li>• <b>CONSOLIDATOR</b></li> <li>• <b>CONSOLIDATOR_ALL</b></li> </ul>	<p>Defines markups defined against which versions of the document are used while burning the annotated PDF. Possible values are:</p> <ul style="list-style-type: none"> <li>• Retrieves all markups related to CURRENT version of the document while generating the annotated PDF.</li> <li>• Includes all markups related to all versions of the document whose <code>eif_revision</code> value is same as the <code>eif_revision</code> value of the version being processed. This covers all Revision markups.</li> <li>• Includes all markups related to all versions of the document while generating the annotated PDF.</li> <li>• This is a default state. This includes the consolidators owned markup only in the current version. If consolidator markup file is not found then it automatically includes all markup in current version.</li> <li>• Includes the consolidators owned markup in ALL versions. If consolidator markup file is not found then it automatically includes all markups in ALL version.</li> </ul>



## Chapter 17

# Project Package and Return Project Package

The Project package is an assembly of working copy documents that is handed over to the Capital Projects. The Project package contains attributes that define the project, equipment, and asset classification of the linked working copies. A Project package is an object of *ao\_project\_package* type and it extends from the *ao\_document* type. Working Copies are linked to project package by Asset Operation Project package relation.

The edited working copy documents in the Capital Projects solution are handed back to Asset Operation using a zip file. The zip file contains a metadata excel sheet that has attribute information about the working copies that are being returned. In addition, the zip file is imported as a Return package in OpenText Documentum CM for Engineering. The return Project package is also an object of *ao\_project\_package* type.

This chapter contains the following topics:

## 17.1 Typical Scenario of Handover and Handback

The Document coordinator performs the following tasks for the Handover and Handback of documents:

1. Creates a working copy document from an effective Asset document and uses the resulting working copy to create a Project package.
2. Can attach additional working copies to the Project package.
3. Can invoke the **Export to Projects** action on the Project package to send content and a metadata sheet that contains the attributes of working copies, to a predefined shared location for use by Content Bridge (or any other migration tools) to ingest into the Capital Projects.
4. Imports the updated zip file into OpenText Documentum CM for Engineering as a Return Project package. As the import process begins, the system iterates through the attached content of the zip and versions the working copies present in Asset Operations, if the working copies are found to be updated.

## 17.2 Other Scenarios

In addition to the **Export to Projects** operation, a doc coordinator can also invoke the **Generate Zip** operation on a Project package to create the content and metadata in a zip for sending the package out through Transmittal. Likewise, a doc coordinator can also invoke **Export metadata to Projects** to only have the metadata exported. This **Export metadata to Projects** is best uses in situations where Asset Operations and Capital Projects are both in the same docbase, where existing content file can be shared with the new object.

## 17.3 Configuration Summaries

This section describes the Project package and Return Project package configurations provided with Asset Operations. You can adapt and reuse these configurations to create your custom solution. Each solution requires varying levels of customization.

The following topics describe the default project package configurations in Asset Operations:

### 17.3.1 Configuring the Project Package

The following table summarizes the configurations for Project Package. Each configuration reflects an applicable context that specifies an object type of **ao\_project\_package**.

Configuration	Description
Auto Naming	Used to auto-populate names of documents, folders, and other objects created in Asset Operations.  The AO Project Package in Being Prepared context is preconfigured to use the <b>AO Project Package Naming</b> configuration.
Property Page	Specifies the project package properties and defines the values that doc coordinators can set when creating a project package.  The AO Project Package creation profile is configured to use the <b>AO Project Package Advanced Property Page</b> on creation. After creation, for viewing the properties of project packages, the AO Project Package context is preconfigured to use <b>AO Project Package Edit Page</b> .
Inheritance	Specifies the inheritance of properties.  The AO Project Package creation profile is configured to use the <b>AO Project Package Inheritance</b> configuration.

Configuration	Description
Security	<p>Specifies access rights for project package users.</p> <p>The AO Project Package context is preconfigured to use the <b>AO Project Package Security</b> configuration.</p>
Auto Link	<p>Specifies the location where Asset Operations stores project packages.</p> <p>Asset Operations stores the project packages in the following location:&lt;locations:domain&gt;/Projects/&lt;ao_project_number&gt;/Project Package</p> <p>The AO Project Package context is preconfigured to use the <b>AO Project Package Auto Link</b> configuration.</p>
Template list	<p>Defines the query that describes the available content templates to doc coordinators when they create project package.</p> <p>Asset Operations uses the following query:</p> <pre>1 ao_content_template where folder( '/AO Library/Templates/Content Templates') and a_status='Effective' and any applicable_artifacts = '\$value(document_type)' and domain='\$value(domain)'</pre> <p>The AO Project Package context is preconfigured to use the <b>AO Document Type based Templates</b> configuration.</p>
Lifecycle	<p>Defines the lifecycle of a project package.</p> <p>The AO Project Package creation profile is configured to use the <b>AO Project Package Lifecycle</b> configuration.</p>
Audit	<p>Specifies the events that are audited.</p> <p>The AO Project Package context is preconfigured to use the Auditing for AO Project Package configuration.</p>

### 17.3.2 Content Template - Project Package

As a default setup, Project package is assigned a spreadsheet as its content template. (A template list through the Asset Operation Document Type based templates that matches the **document\_type='PROJECTPACK'**) You can view the spreadsheet from the /AO Library/Templates/Content Templates/AO Package Template.xls location.

This spreadsheet is adopted from TMFBulkExportImport and contains two worksheets. The schema sheet contains essential information (Column Heading, Data Field, Default Value and so on.) that the job uses to determine attributes to export.

The **FileList** is the spreadsheet that contains a column heading that matches the Schema sheet used by the job to export metadata.

Column Heading – Label of the column defined on the File List. This column heading is used for the program to find a matching column of the data field when exporting the metadata.

Data Field – The *attribute\_name* job uses this field to locate the attribute from the processing object. There are few non Documentum attributes such as FILENAME, OBJECT\_ID, CHECKSUM, OBJECT\_PATH, CONTENT, and CONTENT\_PATH. These are system attributes job that provide additional information.

Default – Specifies a default value to used in case of an blank string.

The following diagram illustrate the sample metadata spreadsheet:

A	B	C	D	E	F	G	H
General_Settings	Setting Values	Worksheet	Column Heading	Data Field	Default Value	Read-only	Date Format
Format	AO Bulk Upload Template 1.0	File List	Filename	FILENAME	N		
Taxonomy	AO Classification for Bulk Export	File List	Title*	object_name	N		
Model		File List	Keywords	keywords		N	
Creation Profiles	AO Artifacts	File List	Version	r_version_label	N		
Locale	en	File List	Status	a_status	N		
		123 File List	Object ID	OBJECT_ID	N		
			Checksum	CHECKSUM	Y		
			Repository Path	OBJECT_PATH	N		
			Object Name	ao_content_doc_number	N		
			Type of Document	document_type	Y		
			Area	ao_asset_name_d	Y		
			Revision*	ao_revision	Y		
			Originator	ef_originator	Y		
			Responsible	ef_responsible	Y		
			Discipline	ao_discipline_s	Y		
			Equipment Tags	ao_asset_equipment_number	Y		
			Area	ao_asset_area	Y		
			System	ao_asset_system	Y		
			Subsystem	ao_asset_subsystem	Y		
			Storage Path	CONTENT_PATH	N		
			Content	FILENAME	N		
			Project Reference	ao_project_number	Y		

### 17.3.3 Return Project Package Configurations

The following table summarizes the configurations provided for Return Project package (`r_object_type = 'ao_project_package'` and `a_status = 'Ready to Unpack'`). Each configuration reflects the applicable context that specifies an object type of `ao_project_package`.

Configuration	Description
Auto Naming	Used to auto-populate names of documents, folders, and other objects created in Asset Operations.  The AO Return Project Package context is preconfigured to use the <b>AO Return Project Package Naming</b> configuration.
Property Page	Specifies the Return Project package properties and defines the values that doc coordinators can set when importing a Return Project package.  The AO Return Project package creation profile is configured to use the <b>AO Project Package Advanced Property</b> page on creation; same property page as that of Project package.
Inheritance	Specifies the inheritance of properties.  The AO Return Project package creation profile is configured to use the <b>AO Project Package Inheritance</b> configuration; same configuration as that of Project package.
Security	AO Return Project package context does not map any security configurations. As AO Return Project package is object of type <code>ao_project_package</code> , it uses the security configuration of project package which is <b>AO Project Package Security</b>
Auto Link	Uses the Auto Link configuration of the project package- <b>AO Project Package Auto Link</b> configuration.  Asset Operations stores the return project packages in the following locations: <code>&lt;domain&gt;/Projects/&lt;ao_project_number&gt;/Project Package</code>  Defines the lifecycle of a Return Project package.

Configuration	Description
Lifecycle	<p>Defines the lifecycle of a Return Project package.</p> <p>During creation, the AO Return Project package is configured to use the AO Return Project Package lifecycle, which moves the package to the <b>Ready to Unpack</b> state. In the client configuration matrix, the <b>AO Return Project Package</b> context is preconfigured to use <b>AO Project Package Lifecycle</b>, which has <b>Ready to Unpack</b> as the Direct state. The AO Return Project package further goes through other states of AO Project Package Lifecycle.</p>
Audit	<p>Uses the Audit configuration of project package- <b>Auditing for AO Project Package</b> configuration.</p>

### 17.3.3.1 EPFMABulkExportImportPackage Job

The **EPFMABulkExportImportPackage** job contains a new optional parameter called `init_state`.

Whenever you create new documents by using **EPFMABulkExportImportPackage** job, the promotion to target state is possible only if the transition is defined in the lifecycle.

For example, In **AO Cat 3 Document Lifecycle** transition to **Effective** state from **Draft** state is possible and transition to **Reviewed** state from **Draft** state is not defined.

The following is a sample log entry of transition related details:

```
Applying D2 configuration for document with object Id:0901b653800fc3ba,Is transition allowed to For Review from Draft?:true
```

### 17.3.4 Project Package Lifecycle States

A lifecycle controls the delivery process of a Project Package. The base Asset Operations lifecycle is the AO Project Package Lifecycle. The following table lists the lifecycle states of the AO Project Package lifecycle.

State	Description
Being Prepared	<p>The state to which a newly created project package is attached to. When a project package enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• The status is set to <b>Being Prepared</b>.</li> <li>• The current user is defined as the author of the Project package.</li> <li>• System sets the property <i>ao_control_doc_number</i> to the value of <i>object_name</i>.</li> <li>• AO Project Package relation is established between working copy, if it is selected as source object, and the new project package being created.</li> </ul> <p>When in this state, the user can use the following action:</p> <ul style="list-style-type: none"> <li>• <i>Advanced Properties</i>: Displays the Project Package Properties page if the user has WRITE permissions.</li> <li>• <i>Export to Project</i>: Exports the project package to a predefined shared location for use by Content Bridge (or any other migration tools) to ingest into Capital Project.</li> <li>• <i>Generate zip</i>: Generates a zip of the project package to be able to use it in transmittal.</li> <li>• <i>Export metadata to Project</i>: Exports the metadata spreadsheet that contains attribute information of working copies that are part of the project package.</li> </ul>
Pending	In this state, the project package is added to <i>dmi_queue_item</i> with the <b>Send to CP</b> event and waits to be processed by the scheduled job.
Packing	In this state, the project package is being processed by the job.
Sent	In this state, the project package is packed and sent to a predefined location ready for Content Bridge (or any other migration tool), for Handover to the Capital Projects.
Zipped	In this state, the package and its related contents are zipped and ready for the user to attach to a transmittal.

State	Description
Ready to Unpack	<p>The imported project package (Return Project package) is in this state. This is the starting state of the Return Project package. This state is marked as Direct State. The following actions take place in this state:</p> <ul style="list-style-type: none"><li>• System sets the property <code>ao_control_doc_number</code> to the value of <code>object_name</code>.</li><li>• The Return Project package is added to <code>dmi_queue_item</code> with event Send to CP event and unpack task and waits to be processed by the scheduled job.</li></ul>
Unpacking	In this state, the Returned Project package is being processed by the job.
Ready for Review	In this state working copies that are part of return project package are in <b>Ready for Review</b> status.
Consolidation	The Return Project package is in <b>Consolidation</b> state.
Invalid	An exception state indicating that an error has occurred during the packing or unpacking of the package.

### 17.3.5 Project Package Lifecycle Actions

Besides the defined lifecycle states, the following are the project package lifecycle actions.

Lifecycle Action	Description
Export to Project	<p>The project package is added to the queue and waits for the scheduled job to export the associated working copies metadata into a spreadsheet and copy their contents into a predefined location.</p> <p>This action is only available when the project package is in the <b>Being Prepared</b> state. When this action is completed, the project package is promoted to the <b>Sent</b> state and its primary content is replaced with a zip file that contains all the exported contents and metadata spreadsheet.</p> <p>This action also changes the linked document state. The working copies that are part of the project package are moved to <b>Queued</b> state.</p> <p>This action has two uniqueness checks:</p> <ul style="list-style-type: none"> <li>• Validate the Asset Operation user to be the Author for the selected document.</li> <li>• Validates Project Package has at least one attachment.</li> </ul>
Generate Zip	<p>Adds the project package related working copies and their metadata written to a spreadsheet into a zip file. Optionally, the user can attach the zipped package and attach to a Transmittal to send to the project.</p> <p>This action is only available when the project package is in <b>Being Prepared</b> state. When this action is completed, the package is changed to the <b>Zipped</b> state and its primary content is replaced with a zip file. The zip file contains the related contents and metadata spreadsheet.</p> <p>This action also changes the state of the linked document. The working copies that are part of the project package are moved to the <b>Queued</b> state.</p> <p>This action has two uniqueness checks:</p> <ul style="list-style-type: none"> <li>• Validate the Asset Operation user to be the Author for the selected document.</li> <li>• Validates Project Package has at least one attachment.</li> </ul>

Lifecycle Action	Description
Export Metadata	<p>Adds the Project package to a queue and waits for the scheduled job to export the associated working copies metadata to a spreadsheet and places the spreadsheet into a predefined location ready for Content Bridge (or any other migration tool) to process.</p> <p>This action is only available when the project package is in the <b>Being Prepared</b> state. When this action is completed, the package is promoted to the <b>Sent</b> state and its primary content is replaced with an updated excel spreadsheet containing the related documents' metadata.</p> <p>This action has two uniqueness checks:</p> <ul style="list-style-type: none"> <li>• Validate the Asset Operation user to be the Author for the selected document</li> <li>• Validates Project Package has at least one attachment.</li> </ul>

### 17.3.6 Project Package Lifecycle Auto Actions (Invoked by the D2 Lifecycle Job)

The context, **Process Return Package** (`r_object_type='ao_project_package'` and `a_status='Ready for Review'`) is mapped to the **AO Process Return Package** lifecycle batch configuration. The OpenText Documentum CM client lifecycle batch promotes the package to the Process Return state if it finds documents in the **Process Return Package** context.

State	Description
Process Return	Promotes the package to Consolidation state.

### 17.3.7 Return Project Package Lifecycle States

The base Asset Operations lifecycle is the **AO Return Project Package**. The following table lists the lifecycle state for **AO Return Project Package**.

State	Description
Ready to Unpack	The Return Project Package which is a zip, when imported into AO is in this state. This state is the Start State.

The Project Package and Return Project Package are of the same type, `ao_project_package`. The Project Package context, **AO Project Package** (`r_object_type = 'ao_project_package'`) is bound to the **AO Project Package**

**Lifecycle.** However the Return Project Package, which is a zip file when imported into AO must go to the **Ready to Unpack** state directly. Hence, the Return Project Package creation profile, **AO Return Project Package** is configured with the **AO Return Project Package** lifecycle so that return Project Package is in the**Ready to Unpack** state when imported into AO.

As the client configuration maps the context **r\_object\_type = ao\_project\_package** with the **AO Project Package Lifecycle**, the return project package is moved to the other states of **AO Project Package Lifecycle**, based on the life cycle actions.

### 17.3.8 Project Package Security Model

The AO Project Package context is preconfigured with AO Project Package Security.

State	Doc Coordinators (authors)	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_world)	Readers	Reviewers	Approvers
<i>Being Prepared</i>	DELETE CHAN GE_STA TE CHAN GE_LO CATIO N CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	NONE	NONE
<i>Pending</i>	READ CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	NONE	NONE
<i>Sent</i>	READ CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	READ	NONE	READ	NONE	NONE

State	Doc Coordinators (authors)	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_worId)	Readers	Reviewers	Approvers
Zipped	READ CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	READ	NONE	READ	NONE	NONE
Ready to Unpack	DELETE CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	NONE	NONE
Ready for Review	RELATE CHAN GE_STA TE CHAN GE_PER MIT	RELATE CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	READ CHAN GE_STA TE	READ
Consolidation	RELATE CHAN GE_STA TE CHAN GE_PER MIT	RELATE CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	READ	NONE	READ	READ CHAN GE_STA TE	READ

State	Doc Coordinators (authors)	Doc Coordinators	Administrators (ao_admins)	Auditors (auditors)	Default (dm_world)	Readers	Reviewers	Approvers
<i>Invalid</i>	READ CHAN GE_STA TE CHAN GE_PER MIT	READ CHAN GE_STA TE CHAN GE_PER MIT	DELETE CHAN GE_STA TE CHAN GE_OW NER CHAN GE_PER MIT	NONE	NONE	NONE	NONE	NONE

### 17.3.9 Return Project Package Security Model

Return project package is of the same type as the Project Package (`ao_project_package`) and so uses the same security configuration, AO Project Package Security.

## 17.4 Configuring Dictionaries

In Asset Operations solution, you can configure the following System dictionaries:

You can extend your own value by creating a new key with your domain and key. The Asset Operation looks for the domain specific key and uses the setting, if found. If you do not specify a domain specific key, Asset Operation retains the default key. For example: If you have a `key = ExportPackage` with `domain = Acme`, you can add a new `key = Acme ExportPackage` and specify your own variance value.

### 17.4.1 Updating the System AppServer Config Dictionary

This dictionary contains the details of OpenText Documentum CM client web application. It has a OpenText Documentum CM client Url key, and one alias is used for processing export package

1. In client configuration, select **Data > Dictionary** and select **System AppServer Config**.
2. In the lower section, click the **Alias** tab and specify the values for the columns in **D2 Url** row.
  - **Base Url:** Provide the base URL address.

### 17.4.2 Updating the System ExportPackage Config Dictionary

This dictionary is used during the project package export. It has a singleton key, **ExportPackage**, and three alias used for processing export package.

1. In client configuration, select **Data > Dictionary** and select **System ExportPackage Config**.
2. In the lower section, click the **Alias** tab and specify the values for the columns in **ExportPackage** row.
  - **Relation Name column:** Name of Relation that the system uses to locate related project package content.
  - **Export Directory column:** File directory that the program uses to export out the package. Ensure that the program can access this directory with Delete permit from the Documentum Server.
  - **Include Content Format column:** Select this option to include the primary format export package and or PDF rendition of the working copy. Possible values are source, PDF, source and PDF.

### 17.4.3 Updating the System ImportPackage Config Dictionary

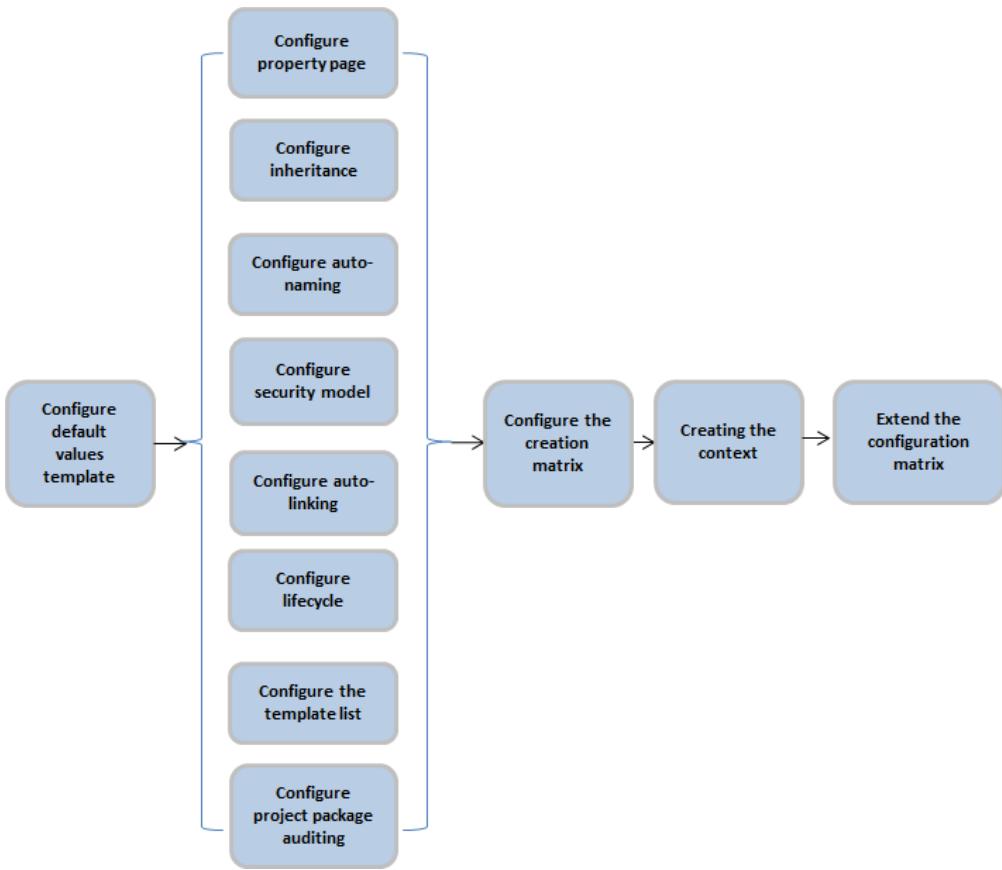
This dictionary is used during the Return Project Package import. It has a singleton key, **ImportPackage**, and one alias that is used during the hand back of the package to Asset Operation.

1. In client configuration, select **Data > Dictionary** and select **System ImportPackage Config**.
2. In the lower section, click the **Alias** tab and specify the values for the following column in the **ImportPackage** row.

**Working Copy State:** The lifecycle state that the working copy should be in after being edited outside of AO and handed back to AO as part of return project package.

## 17.5 Enabling the Doc Coordinator to Create and Send Project Package

The following figure illustrates the process for enabling doc coordinators to create and export project package.



To enable document coordinators to create and send project package, complete the following tasks:

### 17.5.1 Configuring the Default Values Template

Define the default values for the project package created in your application.

1. In client configuration, select **Creation > Default values template** and select **AO Project Package Defaults**.
2. Click **Create from**.
3. Enter a name for your **Default Values Template** and enter the application name in the **Applications** section.
4. Configure the following properties and save your changes:
  - **ao\_asset\_family\_s**: The asset family. By default, this is set to *Power Exploration*.
  - **ao\_asset\_name\_s**: The asset name. By default, this is set to *Mars*.

- **auditors:** Define the user group that can audit project package. The group name should be `<domain_group_prefix>_doc_auditors`. For example, `ao_doc_auditors`.
- **authors:** Define the users that can create project packages. This must include the current session user represented by `$USER` and the domain's doc coordinators group: `<domain_group_prefix>_doc_coordinators`. For example, `$USER, ao_doc_coordinators`.
- **category:** Type 0.
- **domain:** Your domain name. For example, AO.
- **group\_name:** The group name prefix that is common to all group names in this domain. This prefix is used for selecting default users or groups for different roles of access. For example, AO.
- **object\_name:** This should already be configured to Auto Generated.
- **readers:** Define the user group that can read project packages. By default, this is set to AO.

## 17.5.2 Configuring the Property Page

When you configure the property page, you create the configuration from the Asset Operations property page and configure it for your environment.

[“Configuring the Project Package” on page 434](#) describes the Asset Operations property page configuration.

The Property page defines the properties that need to be displayed to the end user when they create a project package instance.

1. In client configuration, select **Go to > Property page** and select **AO Project Package Advanced Property** from the **Application** drop-down list.
2. Click **Create from**.
3. Specify a name and add your application to the **Applications** list.
4. In the **Document type** drop-down list, select **AO Project Package Inheritance**.
5. In the **Structure** section, expand the **Properties** item and then expand the unlabeled folder.
6. Update the properties as described in the following table:

Tab/Fieldset	Property	Description
Classifications/ Project	<code>ao_project_title</code>	Taxonomy: Select the taxonomy you created in <a href="#">“Creating the Projects Taxonomy” on page 343</a> . Level: Project Titles. Next Property: <code>ao_project_number</code>

Tab/Fieldset	Property	Description
ao_project_number	Taxonomy: Select the taxonomy you created in “ <a href="#">Creating the Projects Taxonomy</a> ” on page 343. Level: Project Numbers.	
Classifications/ Equipment	ao_tag_major_function	Taxonomy: Select the taxonomy <i>AO_MajorFunction_Function_Type</i> Level: Asset Major Function. Next Property: <i>ao_tag_function</i> The AO_MajorFunction_Function_Type taxonomy reflects the NORSO Coding standard
	ao_tag_function	Taxonomy: Select the taxonomy <i>AO_MajorFunction_Function_Type</i> Level: Asset Function Tag.
	ao_tag_type	Must correspond to a query or list of equipment.
ao_asset_equipment_number		
Classifications/ Drawing	ao_drawing_number	Specifies a unique number and sheet number, respectively, assigned to drawing documents.
	ao_sheet_number	
Asset Info > Assets	ao_asset_family_s ao_asset_name_s ao_asset_facility ao_asset_area ao_asset_system ao_asset_subsystem	Specifies the asset scope defined by the Asset Type and system/subsystem taxonomies and client dictionaries or taxonomy of facility and area. Select the taxonomy that defines the scope of assets for the documents that authors can create.
Asset Info > License	ao_license_type_s ao_license_name_s ao_license_number_s	Specifies the asset document license type, name, and number corresponding to the Asset License Type and Asset License dictionaries. Select the dictionaries that define asset license information for the documents that authors can create.
Program Info/ Program and Project	ao_doc_program_0_s	Taxonomy: Program Project Level: Hydro Programs Next Property: <i>ao_doc_program_1_s</i>

Tab/Fieldset	Property	Description
ao_doc_program_1_s	Taxonomy: Program Project Level: Hydro Sub-Programs.	
ao_job_number	Specifies a job number.	
Process Info/ Coordinators	doc_coordinators	Appears if the category is less than 4, to select user or group document coordinator members. Adapt query to parent document coordinator group.  Selection from DQL Query:  <pre>select groups_names from dm_group where group_name='ao _doc_coordinators' union select i_all_users_names from dm_group wher e group_name='ao_doc_coordinators' order by 1 desc ENABLE (RETURN_TO P 200)</pre>
Process Info/Authors	authors	Select user or group document author members. Adapt query to parent authors group.
Process Info/ Reviewers	reviewers	Appears if the category is less than four, to select user or group document reviewer members. Adapt query to parent reviewers group.
Process Info/ Approvers	approvers	Appears if the category is less than three, to select user or group document approver members. Adapt query to parent approvers group.
Process Info/2nd Approvers	qo_approvers	Appears if the category is one, to select user or group second level approver members. Adapt query to parent second approvers group.
Process Info/Readers	readers	Select user or group document reader members. Adapt query to parent readers group.
Process Info/TBR Distribution List	tbr_distribution_list	Appears if the category is one, to select user or group to-be-read distribution list recipients. Adapt query to parent TBR group.
Process Info/ Auditors	auditors	Select user or group auditor members. Adapt query to parent auditors group.

### 17.5.3 Configuring Inheritance

When you configure inheritance for project packages, you create the configuration from the Asset Operations inheritance configuration and configure it for your environment.

[“Configuring the Project Package” on page 434](#) describes the Asset Operations inheritance configuration.

1. In client configuration, select **Go to > Inheritance** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Inheritances** list, select **AO Project Package Inheritance**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Configure the inheritance by moving the properties from the **Source** list to the **Selection** list.
6. Click **Save**.

### 17.5.4 Configuring Auto Naming

Configure an Auto Naming definition to control the naming of your project packages. When you configure auto-naming for project package, you create the configuration from the Asset Operations auto-naming configuration and configure it for your environment.

[“Configuring the Project Package” on page 434](#) describes the Asset Operations auto-naming configuration.

1. In client configuration, select **Go to > Auto Naming** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto Namings** list, select **AO Project Package Naming**.
3. Click **Create from**.
4. Specify a name and add your application to the Applications list.
5. Click **Save**.

## 17.5.5 Configuring the Security Model

When you configure the security model configurations for project packages, you create the configurations from the Asset Operations configurations and configure them for your environment.

[“Configuring the Project Package” on page 434](#) describes the Asset Operations security model configuration.

[“Project Package Security Model” on page 443](#) describes the project package security model.

1. In client configuration, select **Go to > Security** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Security templates** list, select **AO Project Package Security**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Click **Save**.

## 17.5.6 Configuring Auto-linking

When you configure auto-linking for project packages, you create the configuration from the OpenText Documentum CM for Engineering auto-linking configuration and configure it for your environment.

[“Configuring the Project Package” on page 434](#) describes the OpenText Documentum CM for Engineering auto-linking configuration.

1. In client configuration, select **Go to > Auto link** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto links** list, select **AO Project Package Auto Link**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Click **Save**.

### 17.5.7 Configuring Lifecycles

When you configure lifecycles for project packages, you create the configurations from OpenText Documentum CM for Engineering lifecycle configurations and configure them for your environment.

[“Configuring the Project Package” on page 434](#) describes the Asset Operations project package lifecycle states.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Lifecycles** list, select **AO Project Package Lifecycle**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. If necessary, add custom properties in case the type *ao\_project\_package* is extended and configure the states and actions for them.
6. Click **Save**.

### 17.5.8 Configuring the Template List

When you configure the template list, you create the configuration from OpenText Documentum CM for Engineering and define the query that controls the content templates that appears when doc coordinators create project packages.

1. In client configuration, select **Go to > Template list** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Templates** list, select **AO Document Type based Templates**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. In the **Qualification** field, define the query that determines the content templates that are available to doc coordinators when they create project package, for example,

```
ao_content_template where folder( '/AO Library/Templates/Content Templates')
and a_status='Effective' and any applicable_artifacts = '$value(document_type)'
and domain='$value(domain)'
```
6. Click **Save**.

### 17.5.9 Configuring Project Package Auditing

When you configure auditing for project packages, you create configurations from OpenText Documentum CM for Engineering audit configurations to audit project packages in your environment.

1. In client configuration, select **Go to > Audit** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Audit templates** list, select **Auditing for AO Project Package**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. If necessary, move custom properties that you created from the **Auditable properties** list to the **Audited properties** list.
6. Click **Save**.

### 17.5.10 Configuring the Creation Matrix

The Creation Matrix defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation matrix** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Matrix** list, select **AO Project Package**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Configure the following properties:
  - **Label en:** Type a label name in the box. For example, Project Package.
  - **Users group:** Select the doc coordinators user group that can create the project package. The group name should be:  
`<domain_group_prefix>_doc_coordinators`. For example:  
`ao_doc_coordinators`.
  - **Dictionary:** Specify the dictionary that defines the type to be created for the new domain. By default, it is **AO to CP Artifacts** that has PROJECTPACK type defined.
6. In the PROJECTPACK row, select the following values in their respective columns and save your changes:
  - **Type column:** Select `ao_project_package`. This is the base type for Project Package.

- **O2 config:** Leave this column blank.
- **Property pages:** Select the Property Page you created in “Configuring the Property Page” on page 448.
- **Version:** 0.1
- **Inheritance:** Select the Inheritance configuration you created in “Configuring Inheritance” on page 451.
- **Default Values Template:** Select the template you created in “Configuring the Default Values Template” on page 447.
- **Lifecycle:** Select the lifecycle you created in “Configuring Lifecycles” on page 453
- **Workflow:** Leave this column blank.

### 17.5.11 Creating the Context

1. In client configuration, select **Go to > Context** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Contexts** list, select **AO Project Package**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Provide the following values and save your changes:
  - **Selection:** Ensure *ao\_project\_package* appears in the list.
  - **Condition:** Define the domain condition for your application. For example, *r\_object\_type=ao\_project\_package* and *domain=A0*.
6. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the AO Project package context.

### 17.5.12 Extending the Configuration Matrix

The configuration matrix specifies settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context that you created in “Creating the Context” on page 455.
2. For this context, make the following selections:
  - **Auto Naming:** Select the Auto Naming definition you created in “Configuring Auto Naming” on page 451.
  - **Security:** Select the Security model definition that you created in “Configuring the Security Model” on page 452

- **Property Page:** Select the Property Page you created in “[Configuring the Property Page](#)” on page 448
- **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 452
- **Lifecycle:** Select the Lifecycle you created in “[Configuring Lifecycles](#)” on page 453
- **Template List:** Select the template list you created in “[Configuring the Template List](#)” on page 453
- **Auditing:** Select the Audit definition you created in “[Configuring Project Package Auditing](#)” on page 454

3. Click **Save**.

## 17.6 Enabling Doc Coordinator to Import a Return Project Package

Return Project Package (`r_object_type = ao_project_package` and `a_status = Ready to Unpack`) is of the same type as Project package (`r_object_type = ao_project_package`) and so most of the same Project package configuration is used here. Return project package uses a different Auto Naming configuration used. Only those configurations that are different from Project package and are used specifically for return project packages are documented below. The “[Enabling the Doc Coordinator to Create and Send Project Package](#)” on page 446. provides information on all the other configurations.

To enable document coordinators to import a return project package, complete the following tasks:

### 17.6.1 Configuring Auto Naming

Configure an Auto Naming definition to control the naming of your return project packages. When you configure auto naming for return project package, you create the configuration from the OpenText Documentum CM for Engineering auto naming configuration and configure it for your environment.

“[Return Project Package Configurations](#)” on page 437 describes the OpenText Documentum CM for Engineering auto-naming configuration.

1. In client configuration, select **Go to > Auto Naming** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Auto Namings** list, select **AO Return Project Package Naming**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Click **Save**.

## 17.6.2 Configuring Lifecycles

When you configure lifecycles for return project packages, you create the configurations from OpenText Documentum CM for Engineering lifecycle configurations and configure them for your environment.

[“Return Project Package Configurations” on page 437](#) describes the OpenText Documentum CM for Engineering Return project package lifecycle states.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Lifecycles** list, select **AO Return Project Package Naming**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. If necessary, add custom properties in case the type *ao\_project\_package* is extended and configure the states and actions for them.
6. Click **Save**.

## 17.6.3 Configuring the Creation Matrix

The Creation Matrix defines a user group and one or more document types that the user group can create or import. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements.

1. In client configuration, select **Creation > Creation matrix** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Matrix** list, select **AO Return Project Package**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Configure the following properties:
  - **Label en:** Type a label name in the box. For example, Return Project Package.
  - **Available for:** Import (Return Project Package is available only during Import).
  - **Users group:** Select the doc coordinators user group that can import return project package. The group name should be: *<domain\_group\_prefix>\_doc\_coordinators*. For example: *ao\_doc\_coordinators*.
  - **Dictionary:** Specify the dictionary that defines the type to be created for the new domain. By default, it is **AO to CP Artifacts** that has PROJECTPACK type defined.

6. In the PROJECTPACK row, select the following values in the respective columns and save your changes:
  - **Type column:** Select *ao\_project\_package*. This is the base type for the Return Project package.
  - **O2 config:** Leave this column blank.
  - **Property pages:** Select the Property Page you created in “Configuring the Property Page” on page 448.
  - **Version:** Type 0.1.
  - **Inheritance:** Select the Inheritance configuration you created in “Configuring Inheritance” on page 451.
  - **Default Values Template:** Select the template you created in “Configuring the Default Values Template” on page 447.
  - **Lifecycle:** Select the lifecycle you created in “Configuring Lifecycles” on page 457
  - **Workflow:** Leave this column blank.

#### 17.6.4 Creating the Context

1. In client configuration, select **Go to > Context** and select **Asset Operations Solution** from the **Application** drop-down list.
2. In the **Contexts** list, select **AO Return Project Package**.
3. Click **Create from**.
4. Specify a name and add your application to the **Applications** list.
5. Supply the following values and save your changes:
  - **Selection:** Ensure that *ao\_project\_package* appears in the list.
  - **Condition:** Define the domain condition for your application, for example, *r\_object\_type = ao\_project\_package and a\_status = Ready to Unpack and domain=AO*.
6. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the AO Return Project Package context.

## 17.6.5 Extending the Configuration Matrix

The configuration matrix specifies settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 458.
2. For this context, select the following:
  - **Auto Naming:** Select the Auto Naming definition you created in “[Configuring Auto Naming](#)” on page 456.
  - **Lifecycle:** Select the Lifecycle you created in “[Configuring Lifecycles](#)” on page 453

After you import the Return Project package, it goes through the lifecycle states configured for the Project package.

3. Click **Save**.



# Chapter 18

## Distribution Matrix

This chapter contains the following topics:

### 18.1 Configuration Summaries

This section describes the distribution matrix configurations provided with OpenText Documentum CM for Engineering. You can adapt and reuse these configurations for Operations and Active Projects.

#### 18.1.1 Configuring the Distribution Matrix for Operations

The following table lists the applied configuration elements that are used by the Distribution Matrix.

Configuration Category	Configuration Name
Property Page	AO Distribution Matrix Property
Security	AO Distribution Matrix Security
Auto Link	AO Distribution Matrix Auto Link
Lifecycle	AO Distribution Matrix Lifecycle

When customizing the applied configurations to address customer-specific business requirements, these configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

##### 18.1.1.1 Distribution Matrix Lifecycle States

A lifecycle controls the delivery process of a distribution matrix. The following table describes the lifecycle states for the **AO Distribution Matrix Lifecycle**.

State	Description
<b>Being Prepared</b>	<p>The distribution matrix is in preparation and is not available to consumers. A new distribution matrix remains in this state. Only ao_tr_managers have access to the distribution matrix in this state.</p> <p>When a distribution matrix enters this state, the following actions take place:</p> <ul style="list-style-type: none"> <li>• Distribution matrix receives default configurations.</li> <li>• The status is set to <b>Being Prepared</b></li> <li>• The current user is defined as the <b>author</b> of the distribution matrix.</li> </ul> <p>In this state, you use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Apply Distribution Matrix Template</b></li> <li>• <b>Apply Security</b></li> <li>• <b>Apply Auto Link</b></li> <li>• <b>Apply Parameters</b></li> </ul>
<b>Valid</b>	<p>The distribution matrix moves from the Being Prepared state and is validated against the defined rules in the distribution matrix template.</p> <p>In this state, you can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Apply Security</b></li> <li>• <b>Apply Parameters</b></li> </ul>
<b>Published</b>	<p>The distribution matrix moves from the Valid state and is currently in the process of being published. This occurs when the user clicks <b>Publish</b>.</p> <p>In this state, you can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Apply Security</b></li> <li>• <b>Apply Parameters</b></li> </ul>
<b>Invalid</b>	<p>The distribution matrix moves from the Being Prepared state and is currently in the process of validated. This occurs when the user clicks <b>Validate</b>.</p> <p>From this state, you can promote to the <b>Being Prepared</b> state.</p>

State	Description
<b>Inactive</b>	<p>The distribution matrix is no longer active. The distribution matrix can be moved to this state from the <b>Published</b> state. From this state, you can promote to the <b>Being Prepared</b> state.</p>
<b>Processing</b>	<p>The distribution matrix is considered published based on the successful completion of one of the following scenarios: The values in the distribution matrix is validated with the help of the <b>EPFMACreateDistMatrixFromExcel</b> method.</p> <p>You can configure the following parameters based on your environment:</p> <ul style="list-style-type: none"> <li>• <b>Taxonomy</b> – The recipient details is validated against the value defined for this parameter. If you do not mention the taxonomy name, OpenText Documentum CM for Engineering does not validate the recipients details.</li> <li>• <b>Onlyextusers</b> – Setting this parameter to true denotes that only external users are allowed and when you provide internal user details in the spreadsheet, the status changes to Invalid. For example, AO Project Transmittal uses external users only.</li> <li>• <b>targetType \$value</b> – OpenText Documentum CM for Engineering accepts the value of the <code>ao_doc_type_name</code> attribute. By default, the value is set to Documents or Transmittals.</li> <li>• <b>checkIntUsersInTaxonomy</b> – By default, the value is set to true. If the value is set to true, OpenText Documentum CM for Engineering validates the internal users details against the taxonomy. If the value is set to false, no validation is done for the internal users.</li> </ul> <pre><i>-taxonomy "AO Transmittal Recipients" -onlyextusers true -targetType \$value(au_doc_type_ name)</i></pre>

State	Description
(Generate Excel)	<p>If the distribution matrix status changes to <b>Published</b> or <b>Valid</b>, you can view the <b>Generate Excel</b> menu option.</p> <p>The distribution matrix can be converted to an Excel file by using the <b>EPFMAExportDistributionMatrix</b> method.</p>

### 18.1.1.2 Distribution Matrix Security Model

State	Form Managers (form_managers)	Form Users (dm_owner)	Administrators (ao_admins)
<i>Inactive</i>	CHANGE_STATE CHANGE_LOCATION	VERSION CHANGE_STATE CHANGE_LOCATION	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION
<i>Published</i>	READ, DELETE CHANGE_PERMIT CHANGE_STATE CHANGE_LOCATION	READ CHANGE_STATE CHANGE_LOCATION	DELETE CHANGE_STATE CHANGE_PERMIT CHANGE_LOCATION

### 18.1.1.3 AO Distribution Matrix Properties

The following are the AO Distribution matrix properties:

- `object_name`
- `ao_asset_facility`
- `ao_doc_type_name`
- `document_type`
- `a_status`

## 18.1.2 Enabling Users to Create Distribution Matrix

The following figure illustrates the process for enabling users to create a distribution matrix:



### 18.1.2.1 Configuring the Default Values Template

Define default values for the distribution matrix created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Distribution Matrix Default Values**.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Default Values Template.
3. Configure the following properties and save your changes:
  - **category**: 0
  - **domain**: Your domain name, for example, AO
  - **form\_managers**: Specify the user group that can create the distribution matrix. The group should be \$USER.
  - **form\_users**: Specify the user group that can create the distribution matrix. The group should be: <domain\_group\_prefix>\_tr\_controllers. For example, acme\_hydro\_tr\_controllers.
  - **group\_name** The group name prefix that is common to all group names in the domain. This prefix is used for selecting default users or groups for different roles of access, for example, ao.

### 18.1.2.2 Configuring User-Definable Properties

The Property page defines properties that need to be displayed to the end-user when they create a distribution list instance.

1. In client configuration, select **Go to > Property page** and select **AO Distribution Matrix Property**.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Property Page.
3. For **Document type**, select **ao\_distribution\_list**.
4. In the **Structure** section, expand the **Properties** item and then expand the unlabeled folder.
5. Update the properties as described in the following table:

Tab	Fieldset
ao_asset_facility	Level: Select the <b>Asset_Facility</b> dictionary.

6. Click **Save**.

### 18.1.2.3 Configuring Auto-linking

Create an Auto Link definition to specify a security model for your distribution matrix folders.

1. In client configuration, select **Go to > Auto Link** and select **AO Distribution Matrix Auto Link** from the menu bar.



**Note:** Here, for Operations, you must use **AO Distribution Matrix Auto Link** and for Active Projects, you must use **AO MP Distribution Matrix Auto Link**.

2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section.
4. Click **Save**.

### 18.1.2.4 Creating the Lifecycle

Defining a domain-specific Lifecycle enables users to define domain specific recipients for the distribution matrix.

1. In client configuration, select **Go to > Lifecycle** and select **AO Distribution Matrix Lifecycle**.
2. Click **Create from**, select your application from the drop-down list on the menu bar, and type a name for your Lifecycle.
3. In the **Lifecycle State** table, select the **Being Prepared** Start state.
4. In the lower section, find the **Next State / Transition Parameters** table. Locate the row that contains **Being Prepared** and set the **Dialog box** property to the Property Page you created in “[Configuring User-Definable Properties](#)” on page 465.
5. Save your changes.

### 18.1.2.5 Configuring the Creation Profile

The **Creation Profile** defines a user group and one or more document types that the user group can create. It also associates each defined document type with standard or customized client configuration components. For each of these components, and a few not on the list, you can use either a pre-defined OpenText Documentum CM for Engineering component or a custom component configured for your requirements. The Acme Hydro sample application referenced in this document uses pre-defined components, customizing only those components that most customers will need to customize.

1. In client configuration, select **Creation > Creation profile** and select **AO Distribution Matrix**.

2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Creation Matrix.
3. Configure the following properties:
  - **Label en:** Type a label name in the box (for example, Hydro Distribution Templates).
  - **Users group:** Select the authors user group that can create distribution lists. The group name should be <domain\_group\_prefix>\_tr\_controllers. For example, acme\_hydro\_tr\_controllers.
4. In the **Distribution Matrix** row, select the following values in their respective columns and save your changes:
  - **Type** column: Select **ao\_distribution\_list**. This is the base type for distribution lists.
  - **O2 config** column: Leave this column blank.
  - **Property pages** column: Select the Property Page you created in “Configuring User-Definable Properties” on page 465.
  - **Version** column: **0.1**
  - **Inheritance** column: Leave this column blank.
  - **Default Values Template** column: Select the template you created in “Configuring the Default Values Template” on page 465.
  - **Lifecycle** column: Select the lifecycle you created in “Creating the Lifecycle” on page 466.
  - **Workflow** column: Leave this column blank.

### 18.1.2.6 Creating the Context

To create the context:

1. In client configuration, select **Goto > Context** and select **AO Distribution Lists**.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Context.
3. Supply the following values and save your changes:
  - **Selection:** Ensure **ao\_distribution\_list** appears in the list.
  - **Condition:** Specify the domain condition for your application. For example:
 

1 domain='Acme Hydro'
4. Click **Matrix** to view your context in the OpenText Documentum CM client Matrix. OpenText Documentum CM client processes contexts from left to right. To ensure your context is used, drag the context to the left side of the matrix so that it appears ahead of the **AO Distribution Lists** context.

### 18.1.2.7 Extending the Configuration Matrix

The configuration matrix specifies the settings that are not automatically shared or inherited.

1. From the toolbar, click **Matrix** and locate the context you created in “[Creating the Context](#)” on page 467.
2. For this context, make the following selections:
  - **Property Page:** Select the Property Page you created in “[Configuring User-Definable Properties](#)” on page 465.
  - **Auto Link:** Select the Auto Link definition you created in “[Configuring Auto-linking](#)” on page 466.
  - **Lifecycle:** Select the Lifecycle you created in “[Creating the Lifecycle](#)” on page 466.
3. Save your changes.

## 18.1.3 Configuring the Distribution Matrix for Active Projects

### 18.1.3.1 AO MP Distribution Matrix Lifecycle States

A lifecycle controls the delivery process of an active projects distribution matrix. The following table describes the lifecycle states for the **AO MP Distribution Matrix Lifecycle**.

State	Description
<b>Being Prepared</b>	<p>The distribution matrix is in preparation and is not available to consumers. The new distribution matrix remains in this state. Only ao_tr_managers have access to the distribution matrix in this state.</p> <p>When a distribution matrix enters this state, the following actions take place:</p> <ul style="list-style-type: none"><li>• Distribution matrix receives default configurations.</li><li>• The status is set to <b>Being Prepared</b></li><li>• The current user is defined as the <b>author</b> of the Distribution Matrix.</li></ul> <p>In this state, you can use the following features:</p> <ul style="list-style-type: none"><li>• <b>Apply Distribution Matrix Template</b></li><li>• <b>Apply Security</b></li><li>• <b>Apply Auto Link</b></li><li>• <b>Apply Parameters</b></li></ul>

State	Description
<b>Valid</b>	<p>The distribution matrix moves from the Being Prepared state and is validated against the defined rules in the distribution matrix template.</p> <p>In this state, you can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Apply Security</b></li> <li>• <b>Apply Parameters</b></li> </ul>
<b>Published</b>	<p>The distribution matrix moves from the Valid state and is currently in the process of being published. This occurs when the user clicks <b>Publish</b>.</p> <p>In this state, you can use the following features:</p> <ul style="list-style-type: none"> <li>• <b>Apply Security</b></li> <li>• <b>Apply Parameters</b></li> </ul>
<b>Invalid</b>	<p>The distribution matrix moves from the Being Prepared state and is currently in the process of validated. This occurs when the user clicks <b>Validate</b>.</p> <p>From this state, you can promote to <b>Being Prepared</b> state.</p>
<b>Inactive</b>	<p>The distribution matrix is no longer active. Distribution matrix can be moved to this state from the <b>Published</b> state. From this state, you can promote to the <b>Being Prepared</b> state.</p>

State	Description
<b>Processing</b>	<p>The distribution matrix is considered published based on successful completion of one of the following scenarios:</p> <p>The values in the distribution matrix is validated with the help of the <b>EPFMACreateDistMatrixFromExcel</b> method.</p> <p>You can configure the following parameters based on your environment:</p> <ul style="list-style-type: none"> <li>• <b>Taxonomy</b> – The recipient details is validated against the value defined for this parameter. If you do not mention the taxonomy name, OpenText Documentum CM for Engineering does not validate the recipients details.</li> <li>• <b>Onlyextusers</b> – Setting this parameter to true denotes that only external users are allowed and when you provide internal user details in the spreadsheet, the status changes to Invalid. For example, AO Project Transmittal uses only external users.</li> <li>• <b>targetType \$value</b> – OpenText Documentum CM for Engineering accepts the value of ao_doc_type_name attribute. By default, the value is set to Documents or Transmittals.</li> <li>• <b>checkIntUsersInTaxonomy</b> – By default, the value is set to true. If the value is set to true, OpenText Documentum CM for Engineering validates the internal users details against the taxonomy. If the value is set to false, no validation is done for the internal users.</li> </ul> <p>For example, in OpenText Documentum CM for Engineering environment, you can view the following extra arguments defined in the <b>EPFMACreateDistMatrixFromExcel</b> in the AO MP Distribution Matrix Lifecycle.</p> <pre><i>-taxonomy "AO MP Transmittal Recipients" -onlyextusers true -targetType \$value(ao_doc_type_ name)</i></pre>

State	Description
(Generate Excel)	<p>If the distribution matrix status changes to <b>Published</b> or <b>Valid</b> state, you can view the <b>Generate Excel</b> menu option.</p> <p>The distribution matrix can be converted to an Excel file by using the <b>EPFMAExportDistributionMatrix</b> method.</p>

#### 18.1.3.1.1 Identify Documents with Inactive Users

If the workflow is started, you can update performers in workflow widget. But, if the workflow is not started, you can create a query form to identify the documents that contains non active users. Use the following as the sample query to retrieve the documents that contains non active users:

```
select * from ao_document where document_type='Project Document' and authors='$value(authors)'
```

You can create multiple query forms for different roles.

#### 18.1.3.2 Configuring the Default Values Template for Projects

Define default values for the distribution matrix created in your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Distribution Matrix Default Values for Projects**.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Default Values Template.
3. Configure the following properties and save your changes:
  - **category:** 0
  - **domain:** Specify your domain name. For example, AO
  - **doc\_coordinators:** Specify the coordinator name details. For example, ao\_doc\_coordinator
  - **form\_managers:** Specify the user group that can create distribution matrix. The group should be \$USER.
  - **form\_users:** Specify the user group that can create distribution matrix. The group should be: <domain\_group\_prefix>\_doc\_coordinator. For example: ao\_doc\_coordinator.
  - **group\_name** The group name prefix that is common to all group names in the domain. This prefix is used for selecting default users or groups for different roles of access. For example, ao

## 18.2 Distribution Matrix Dictionaries

The following table displays OpenText Documentum CM client dictionaries that are used by the distribution matrix. You can add or remove values for some of these dictionaries according to your customization requirement.

Dictionary Name	Purpose	Modify (Yes/No)
AO Distribution Matrix Import Config	Provides a list of parameters that can be used in a distribution matrix spreadsheet to create a template.	Yes
AO Distribution Matrix Valid Types	Provides a list of valid types for distribution matrix.	Yes



**Note:** AO Document Type dictionary contains the entries for Distribution Matrix and Project Distribution Matrix.

## 18.3 Distribution Matrix Taxonomy

You must update the following two Taxonomy:

- AO MP Transmittal Recipients: You must add the required values in AO Transmittal Recipient Companies, AO Transmittal Recipient Emails, AO Transmittal Recipient Groups, AO Transmittal Recipient Name dictionaries and then link the dictionaries with AO MP Transmittal Recipients taxonomy. Applicable only for External documents.
- AO Transmittal Recipients: Here, you must add the required values for Transmittal Recipient Type, AO Transmittal Recipient Companies, AO Transmittal Recipient Groups, AO Transmittal Recipient Name, AO Transmittal Recipient Emails and then link the dictionaries with AO Transmittal Recipients. Applicable for both Internal and External documents.



**Note:** If you map a particular attribute to a dictionary, if it saves the key, then that must be used in the condition within the Excel sheet, not the value displayed in the property page.

# Chapter 19

## Document Loading

The Document Loading feature in OpenText Documentum CM for Engineering helps you to create or update documents in bulk.

### 19.1 Creating Document Loading Dictionaries

The following table displays OpenText Documentum CM client dictionaries that are used by Document Loading. You can add or remove values for some of these dictionaries according to your customization requirement.

Dictionary Name	Purpose	Modify (Yes/No)
AO Document Loading Config	<p>Provides a list of configurable parameters that can be used in document loading.</p> <p>The following are the few keys:</p> <ul style="list-style-type: none"> <li>• <b>BLANK_VALUE:</b> Specifies the value to be used in the Spreadsheet cells to reset the appropriate attribute values. Default Value: <b>BLANK</b></li> <li>• <b>DEFAULT_VALIDATION_RULE:</b> Specifies the name of the default validation rule to be looked up when no validation rule exists for a document type and object type combination. Default Value: <b>Default Validation Rule</b></li> <li>• <b>DICTIONARIES_SHEET_NAME:</b> Specifies the name of the sheet in the Excel spreadsheet that is used to fetch the values of dictionaries in the system. Default Value: <b>Dictionaries</b></li> <li>• <b>DOC_LOAD_ATTR_TO_MATCH_DOCS:</b> Specifies a comma separated set of attributes on the Document Loading object which will be verified to match the values provided for documents in the Spreadsheet. If they mismatch the system will throw validation errors. Default Value: <b>ao_asset_facility, ao_project_number, ao_project_title</b></li> <li>• <b>DOCUMENT_LOADING_DOC_TYPE_IN_OPS:</b> Specifies the name of the document type used to</li> </ul>	Yes

Dictionary Name	Purpose	Modify (Yes/No)
	<p>create Document Loading objects in Operations. Default Value: <b>Document Loading Sheet</b></p> <ul style="list-style-type: none"> <li>• MAX_ROWS: Specifies the maximum number of rows a Document Loading sheet can process.</li> <li>• STORAGE_ATTR_FOR_DOCTYPE_IN_OPS: Specifies the attribute name used to identify the document type of a document in Operations. This is used to fetch the Creation Matrix Artifact details in a Creation Profile for a given document type. The values of this attribute in a given creation profile must be unique. Default Value: <b>document_type</b></li> <li>• STORAGE_ATTR_FOR_DOCTYPE_IN_PROJECTS: Specifies the attribute name used to identify the document type of a document in Active Projects. This is used to fetch the Creation Matrix Artifact details in a Creation Profile for a given document type. The values of this attribute in a given creation profile must be unique. Default Value: <b>ao_doc_type_name</b></li> </ul>	

Dictionary Name	Purpose	Modify (Yes/No)
AO Document Loading Sheet Config	<p>Provides a list of Key, Column Type, and Parameter combination, each of which maps to a column in the spreadsheet.</p> <ul style="list-style-type: none"> <li>• <b>Key:</b> Identifies the name of the column in the spreadsheet.</li> <li>• <b>Column Type:</b> Specifies how to process the column. Possible values are Attribute, Lifecycle State, and Storage Path.</li> <li>• <b>Parameter:</b> When Column Type is Attribute, this field specifies the name of the attribute used to store the value of the column. Whenever you add new parameters to the dictionary, you must clear the cache and restart the JMS service to reflect these configuration changes in the OpenText Documentum CM for Engineering Document Loading Spreadsheet.</li> </ul>	Yes
AO Document Loading Store Config	<p>Defines the different sources from which the content files can be loaded against the documents.</p> <p>It has details about implementation classes and other parameters used.</p>	Yes
AO Document Loading Row Config	Defines the implementation classes for different type of actions (Major version, Minor Version, New, Overwrite, and Ignore) to be taken for a document that belongs to a specific row of the document loading spreadsheet.	No

Dictionary Name	Purpose	Modify (Yes/No)
AO Document Loading Column Config	Defines the implementation classes and other parameters for the logic to handle a column type in the document loading sheet. Possible Keys: <b>Attribute, Lifecycle State, Storage Path.</b>	Yes
AO Document Loading Validation Action Type	Provides the action type details. Possible values: <b>Create, Edit, and Create/Edit.</b>	No

## 19.2 Configuration for Importing Files to Temp Folder

The following table displays the configuration properties that are used for importing files to a temp folder.

Configuration Category	Configuration Name
Creation profile	Import Files to Temp
Property Page	Import Files to Temp Property Page
Default value template	Import Files to Temp Defaults
Autolink	Import Files to Temp Auto Link
Context	Import Files to Temp
Dictionary	In AO document Type, the value added is Import Files to Temp.

## 19.3 Configuring Document Loading Spreadsheet

The Document Loading feature of OpenText Documentum CM for Engineering helps to create or update documents in bulk. OpenText Documentum CM for Engineering reads the Excel file associated with the Document Loading object.

The following table lists the applied configuration elements that are used by document loading spreadsheet. When customizing the applied configurations to address customer-specific business requirements, these applied configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO Document Loading Sheet Property Page
Default value template	AO Document Loading Sheet Default Values
Lifecycle	AO Document Loading Sheet Lifecycle

Configuration Category	Configuration Name
Security	AO Document Loading Security
Inheritance	AO Document Loading Inheritance

To select the required document loading sheet property page, default values template, security, inheritance, and lifecycle you must preconfigure the following in client configuration environment.

### 19.3.1 Configuring the Property Page

1. In client configuration, select **Go to > Property page** and select **AO Document Loading Sheet Property Page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the property page.
3. Supply the following values and save your changes:
  - **Document type:** `ao_document_loading`
  - **Structure > Document Loading Template Property page.** You can configure the required attributes for Properties and System Info tab.

### 19.3.2 Configuring the Default Sheet Values

Define default values for the document loading sheet created for your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Document Loading Sheet Default Values**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Default Values Template.
3. Configure the following properties and save your changes:
  - **ao\_content\_store\_type:** Specify source type where the content files can be loaded.
  - **ao\_content\_store\_uri:** Specify the source path where the content files are stored.
  - **ao\_domain:** Specify your domain name. For example, AO.
  - **domain:** Specify your domain. For example, AO.
  - **form\_managers:** Specify the users who can contribute to the document loading sheet and can run operations such as validate and processing of the document loading spreadsheet.
  - **form\_users:** Specify the users who can read the document loading spreadsheet.

### 19.3.3 Configuring Document Loading Sheet Lifecycle

A lifecycle controls the delivery process of a document loading sheet. The following table describes the lifecycle states for the **AO Document Loading Sheet Lifecycle**.

State	Description
Draft	The new document loading sheet remains in this state.
Validating	The document loading moves from the draft state and is validated against the defined rules in the document loading.
Validated	This status appears if the document loading spreadsheet is configured as required.
Processing	If all the column values for a row are valid, then the processing status occurs.
Processed	After all the column values for a row are valid, OpenText Documentum CM for Engineering creates a document based on spreadsheet column values and action type.
Error	This status appears if the document loading spreadsheet is not configured as required.
(Validating)	The values in the document loading sheet is validated with the help of the <b>EPFMADocumentLoadActions</b> method.
(Refresh Dictionaries)	If a document loading spreadsheet contains a sheet named Dictionaries, you can use refresh dictionaries action to update the dictionary values from OpenText Documentum CM for Engineering.

### 19.3.4 Configuring Document Loading Sheet Security

Document loading sheet security follows the same security as defined for AO Document Loading Security.

### 19.3.5 Configuring Document Loading Sheet Inheritance

Document loading sheet inheritance follows the same inheritance as defined for AO Document Loading Inheritance.

## 19.4 Configuring Document Loading Templates

The Admin Artifacts dictionary defines the documents that your administrator group can create. OpenText Documentum CM for Engineering provides the AO Admin Artifacts dictionary, which lists documents that can be created by members of the ao\_admin group. The AO Admin Artifacts creation profile associates the ao\_admin group with the documents listed in the dictionary.

The following table lists the applied configuration elements that are used by Document Loading. When customizing the applied configurations to address customer-specific business requirements, these applied configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system. These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO Document Loading Template Property Page
Default value template	AO Document Loading Template Default Values
Lifecycle	AO Content Template Lifecycle
Security	AO Content Template Security
Auto link	AO Document Loading Template Auto Link

To select the required document loading property page, default values template, and lifecycle you must preconfigure the following in client configuration environment.

### 19.4.1 Configuring the Property Page

1. In client configuration, select **Go to > Property page** and select **AO Document Loading Template Property page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the property page.
3. Supply the following values and save your changes:
  - **Document type:** `ao_content_template`
  - **Structure > Document Loading Template Property page.**

## 19.4.2 Configuring the Default Template Values

Define default values for the controlled procedure content templates created for your application.

1. In client configuration, select **Creation > Default Values Template** and select **AO Document Loading Template Default Values**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Default Values Template.
3. Configure the following properties and save your changes:
  - **applicable\_artifacts**: Specify the document loading template default values template name. For example, Document Loading Template.
  - **domain**: Specify your domain name. For example, AO.
  - **subject**: Specify the required subject name.

## 19.4.3 Configuring Content Template Lifecycle

When you configure the lifecycle for document content templates, you adapt the OpenText Documentum CM for Engineering content template lifecycle to your environment. “Content Templates” on page 115 describes the OpenText Documentum CM for Engineering content template lifecycle configuration.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the application list.
2. In the **Lifecycles** list, select **AO Content Template Lifecycle** and add your application to the **Applications** list.
3. Click **Save**.

## 19.4.4 Configuring Document Loading Security

1. In client configuration, select **Go to > Security** and select **AO Document Loading Security**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Security definition.
3. Update the table with following values. Remove any rows that do not appear in the table.

<b>Row</b>	<b>Conditions</b>	<b>Permissions</b>	<b>Action</b>
dm_world	Default	1–None	NA
dm_owner	a_status = Draft	7–Delete	Select <b>Change State</b> , <b>Change Owner</b> , and <b>Change Location</b> .

Row	Conditions	Permissions	Action
	a_status = Validated a_status = Processed a_status = Error	5-Version	NA
form_managers	a_status = Draft	7-Delete	Select Change State, Change Owner, and Change Location.
	a_status = Validated a_status = Processed a_status = Error	5-Version	NA
ao_admins	Default	7-Delete	Select Change State, Change Owner, Change Permit, Delete Object, Change Folder Links, and Change Location.

- Click **Save**.

#### 19.4.5 Configuring Document Loading Auto Link

- In client configuration, select **Go to > Auto Link** and select **AO Document Loading Template Auto Link** from the menu bar.
- Click **Create from**, select your application from the list on the menu bar, and type a name for your Auto-Linking configuration.
- For the security model on each folder in the **Path** section. For example, domain library - dm\_cabinet, Templates - ao\_folder, Document Loading Templates - ao\_folder, Operations - dm\_folder.
- Click **Save**.

### 19.5 Configuring Project Document Loading Templates

The Admin Artifacts dictionary defines the documents that your administrator group can create. OpenText Documentum CM for Engineering provides the AO Admin Artifacts dictionary which lists documents that can be created by members of the ao\_admin group. The AO Admin Artifacts creation profile associates the ao\_admin group with the documents listed in the dictionary.

The following table lists the applied configuration elements that are used by the Project Document Loading. When customizing the applied configurations to address customer-specific business requirements, these applied configurations must not be renamed or removed from the OpenText Documentum CM for Engineering system.

These configurations are used by the OpenText Documentum CM for Engineering methods internally to address specific and respective business operations.

Configuration Category	Configuration Name
Property Page	AO Document Loading Template Property Page
Default value template	AO MP Project Document Loading Template
Lifecycle	AO Content Template Lifecycle

To select the required project document loading property page, default values template, and lifecycle you must preconfigure the following in client configuration environment.

### 19.5.1 Configuring the Project Property Page

1. In client configuration, select **Go to > Property page** and select **AO Document Loading Template Property page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Property Page.
3. Supply the following values and save your changes:
  - **Document type:** `ao_content_template`
  - **Structure > Document Loading Template Property page.**

### 19.5.2 Configuring the Project Default Template Values

Define default values for the controlled procedure content templates created for your application.

1. In client configuration, select **Creation > Default values template** and select **AO MP Project Document Loading Template Default Values**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Default Values Template.
3. Configure the following properties and save your changes:
  - **applicable\_artifacts:** Specify the document loading template default values template name. For example, Project Document Loading Template.
  - **domain:** Specify your domain name. For example, AO.
  - **subject:** Specify the required subject name.

### 19.5.3 Configuring the Project Content Template Lifecycle

When you configure the lifecycle for document content templates, you adapt the OpenText Documentum CM for Engineering content template lifecycle to your environment. “[Content Templates](#)” on page 115 describes the OpenText Documentum CM for Engineering content template lifecycle configuration.

1. In client configuration, select **Go to > Lifecycle** and select **Asset Operations Solution** from the application list.
2. In the **Lifecycles** list, select **AO Content Template Lifecycle** and add your application to the **Applications** list.
3. Click **Save**.

## 19.6 Configuring Document Loading Rules

### 19.6.1 Configuring Matching Rules

Matching rule identify the existing documents in the system that matches the metadata provided in the spreadsheet. They also defines what action to take, once a match is found, like Create a new Major version, minor version, overwrite, ignore or create a new document.

Configuration Category	Configuration Name
Property Page	AO Document Loading Matching Rule Property Page
Security	AO Doc Loading Config Security
Autolink	AO Document Loading Matching Rule Auto Link
Template list	No Content Required

#### 19.6.1.1 Configuring the Matching Property Page

1. In client configuration, select **Go to > Property page** and select **AO Document Loading Matching Rule Property Page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Property Page.
3. Supply the following values and save your changes:
  - **Document type:** `ao_matching_rule`
  - **Structure > AO Document Loading Matching Rule Config Property Page.**
    - **Rule Definition:** Specify the name of the action type property and select the required dictionary name for validation. For example, Action type property contains Major Version, Minor Version New, Overwrite, and

Ignore. For dictionary, you can select AO Document Loading Row Config.

- **grid:** Specify the required property attribute names.
- **Users:** Select the required user groups for users and managers.

4. Click **Save**.

### 19.6.1.2 Apply Matching Security

1. In client configuration, select **Go to > Security** and select **AO Doc Loading Security Config Security**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Security definition.
3. Update the table with following values. Remove any rows that do not appear in the table.

<b>Row</b>	<b>Conditions</b>	<b>Permissions</b>	<b>Action</b>
dm_world	Default	1–None	NA
dm_owner	a_status = Draft	7–Delete	NA
form_managers	a_status = Draft	6–Write	NA
form_users	a_status = Draft	3–Read	NA
ao_admins	Default	7–Delete	Select <b>Change State</b> , <b>Change Owner</b> , <b>Change Permit</b> .
ao_doc_coordinator	Default	7–Delete	NA

4. Click **Save**.

### 19.6.2 Configuring Matching Auto Link

1. In client configuration, select **Go to > Auto Link** and select **AO Document Loading Matching Rule Auto Link** from the menu bar.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section. For example, ao\_domain library - dm\_cabinet, Document Loading Configuration - ao\_folder, Matching Rules - ao\_folder
4. Click **Save**.

### 19.6.3 Configuring Validation Rules

You can configure a unique combination of Object Type, Document Type, Action Type, and Facility to validate each row of the document loading spreadsheet.

Configuration Category	Configuration Name
Property Page	AO Document Loading Validation Config Property Page
Security	AO Doc Loading Config Security
Autolink	AO Document Loading Validation Rule Auto Link
Template list	No Content Required
Uniqueness Check	Validate AO Same Validation Config Exists

#### 19.6.3.1 Configuring the Validation Property Page

1. In client configuration, select **Go to > Property page** and select **AO Document Loading Validation Config Property Page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Property Page.
3. Supply the following values and save your changes:
  - **Document type: ao\_validation\_rule**
  - **Structure > AO Document Loading Validation Config Property Page**.
    - **Applicable Type and Document, Facility:** Specify the required applicable type, applicable document property, Facility, and then select the required taxonomy or dictionary and level.
    - **Action Type:** Specify the name of the action type property and select the required dictionary name for validation.
    - **Is Enabled:** Specify the name of the is enabled property and select the required dictionary name for validation.
    - **Required Attributes:** Specify the attribute named for the tabs such as **Required, Updatable, Constraints, Dictionary, Taxonomy, and DQL configuration**. Specify the required property for each of these and their respective DQL query details.
4. Click **Save**.

### 19.6.3.2 Applied Validation Security

Asset Operation uses the AO Document Loading Security Config Security model when creating matching rules. Here, **ao\_admins** have the permission to delete matching rules.

1. In client configuration, select **Go to > Security** and select **AO Doc Loading Security Config Security**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Security definition.
3. Update the table with following values. Remove any rows that do not appear in the table.

Row	Conditions	Permissions	Action
dm_world	Default	1–None	NA
dm_owner	a_status = Draft	7–Delete	NA
form_managers	a_status = Draft	6–Write	NA
form_users	a_status = Draft	3–Read	NA
ao_admins	Default	7–Delete	Select <b>Change State</b> , <b>Change Owner</b> , <b>Change Permit</b> .
ao_doc_coordinator	Default	7–Delete	NA

4. Click **Save**.

### 19.6.3.3 Configuring Validation Auto Link

1. In client configuration, select **Go to > Auto Link** and select **AO Document Loading Validation Config Auto Link** from the menu bar.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section. For example, ao\_domain library - dm\_cabinet, Document Loading Configuration - ao\_folder, ao\_asset\_facility -ao\_folder, Validation Rules - ao\_folder.
4. Click **Save**.

## 19.6.4 Configuring Default Validation Rule

Configuration Category	Configuration Name
Property Page	AO Document Loading Validation Config Property Page
Security	AO Doc Loading Config Security
Autolink	AO Document Loading Default Validation Rule Auto Link

In the Default Validation Rules, the Property Page, and Security configuration values are set by default. You cannot perform any configuration changes.

### 19.6.4.1 Configuring Validation Auto Link

1. In client configuration, select **Go to > Auto Link** and select **AO Document Default Loading Validation Config Auto Link** from the menu bar.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section. For example, ao\_domain library - dm\_cabinet, Document Loading Configuration - ao\_folder.
4. Click **Save**.

# Chapter 20

## Configuring xECM

OpenText Documentum CM for Engineering uses xECM for Documentum to communicate between SAP and OpenText Documentum CM for Engineering solutions. The configured solution contains Maintenance Order, Task List, and Equipment business objects as part of the integration. The following configurations are applicable only for the OpenText Documentum CM for Engineering Cloud environment.

The following table lists the available configuration settings for xECM:

Applied Configuration	Configuration Name
Folder Structure Template	SAP_BO_Folder_Template
Property Page	SAP Property Page
Context	SAP Document Link SAP Sub Folder Document Link
Security	SAP Folder Security
Auto links	SAP Document Auto Link SAP Sub Folder Document Auto Link
Dictionary	SAP BO Type Code SAP BO Folders SAP xECM Installed
Taxonomy	SAP BO Doc Classification

### 20.1 Creating SAP Dictionaries

The following table lists the OpenText Documentum CM client dictionaries that are used during SAP xECM integration. You can add or remove values for some of these dictionaries according to your customization requirement. These dictionary values are linked with the **SAP BO Doc Classification** taxonomy.

Dictionary Name	Purpose	Modify (Yes/No)
SAP BO Type Code	<p>Provides a list of configurable parameters that are used in the SAP template.</p> <p>The following are a few keys:</p> <ul style="list-style-type: none"> <li>• Equipment: Specifies an individual, physical object that has to be maintained independently. Default value: <b>EQUI</b></li> <li>• Maintenance Order: Provides planning assistance for maintenance tasks. Default value: <b>BUS2007</b></li> <li>• Task List: Specifies a standardized sequence of work, operation or activities. Default value: <b>BUS1019</b></li> </ul>	Yes
SAP BO Folders	Provides a list of SAP folders that will be used in the taxonomy.	Yes
SAP xECM Installed	Verifies if xECM is installed. The value is either true or false.	No

## 20.2 Configuring SAP Folder Security

The newly created security template must be applied to the folder structure.

1. In client configuration, select **Go to > Security** and select **SAP Folder Security**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Security definition.
3. Update the table with the following values:

Row	Conditions	Permissions	Action
dm_world	Default	1–None	NA
dm_owner	Default	7–Delete	NA
ao	Default	7–Delete	Select <b>Change State</b> and <b>Change Owner</b> .
ao_admins	Default	7–Delete	Select <b>Change State</b> , <b>Change Owner</b> , and <b>Change Permission</b> .

4. Click **Save**.

## 20.3 Creating the Context

1. In client configuration, select **Go to > Context** and select **AO SAP Document Link** or **AO SAP Sub Folder Document Link**.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Context.
3. Provide the following values and save your changes:
  - **Selection:** Ensure **ao\_document** appears in the list.
  - **Condition:** Specify the domain condition for your application. For example: AO SAP Document Link

```
eif_project_ref = ' ' and category>0 and eif_function IN (select object_name
from d2_dictionary_value where dictionary_name='SAP BO Type Code') and
eif_type_of_doc IN (select object_name from d2_dictionary_value where
dictionary_name='SAP BO Folders')
```

or

For example: AO SAP Sub Folder Document Link

```
eif_project_ref !=' ' and eif_type_of_doc = '09 - Operations' and category>0
and eif_function IN (select object_name from d2_dictionary_value where
dictionary_name='SAP BO Type Code') and eif_type_of_doc IN (select object_name
from d2_dictionary_value where dictionary_name='SAP BO Folders')
```

## 20.4 Configuring Matching AutoLink

SAP Document Auto Link configuration provides details when the document must be created under the main folder and subclassification.

1. In client configuration, select **Go to > Auto Link** and select **SAP Document Auto Link** or **SAP Sub Folder Document Auto Link** from the menu bar.
2. Click **Create from**, select your application from the list on the menu bar, and type a name for your Auto-Linking configuration.
3. For the security model on each folder in the **Path** section. For example, Operations - dm\_cabinet, Enterprise Asset Management- dm\_folder
4. Click **Save**.



**Note:** The new context must be mapped with the autolink. Here the mapping is available under Asset Document parent context.

## 20.5 Configuring the Property Page

In the **AO Property Page** and **AO Edit Property Page** SAP properties, label is added.

1. In client configuration, select **Go to > Property page** and select **SAP Property Page**.
2. Click **Create from**, select your application from the list on the menu bar, and provide a name for the Property Page.
3. Provide the following values:
  - **Document type:** `sap_bo`
  - **Structure > SAP Property Page.**
4. Click **Save**.

# Chapter 21

## Object Model Abstraction

Object Model Abstraction helps you to use your existing object model without migrating to the AO Object Model. Object model migration is a complex and time-consuming process.

The following OpenText Documentum CM for Engineering features can be used with minimal configuration:

- Project Creation
- Project Documents
- Project Transmittals
- Project Working Copy
- Integration with Core Collaboration for Engineering using Project Supplier Document Schedule

To accomplish these requirements, OpenText Documentum CM for Engineering provides a new feature that enables you to map AO objects to custom object model and vice versa.

### 21.1 Overview



**Note:** The following example uses a demo application to explain Object Model abstraction.

Assumptions:

- The customer object type is `ecs_doc`.
- The `ecs_doc` object type is mapped to the `ao_document` object type and vice versa.

To map the object type, you must perform the following:

- Add attributes to the custom object model
- Install the custom DAR file
- Import the custom client configuration

## 21.2 Adding Attributes to the Custom Object Model

You must add the following attributes to the custom document type for the Object Abstraction customization to work as desired.

Attribute Name	Date Type	Length
actual_doc_count	INTEGER	
ao_asset_facility	STRING	64

### Prerequisites

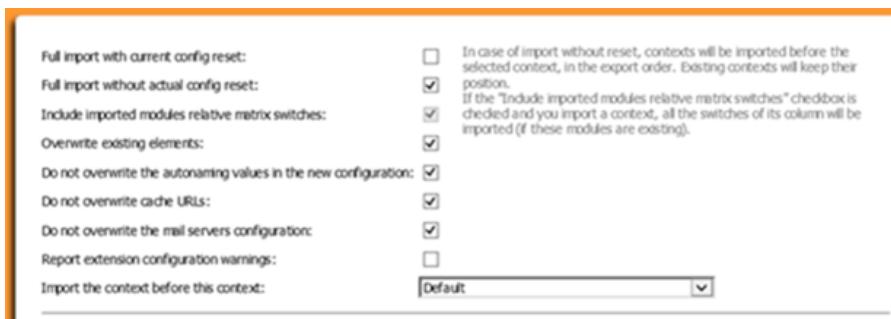
You must have installed OpenText Documentum CM for Engineering. For OpenText Documentum CM for Engineering installation details, see the *OpenText Documentum CM for Engineering 20.3 Installation Guide*.

## 21.3 Installing the Demo Application



**Note:** This demo application is applicable only for the `ecs_doc` object type.

1. Add attributes to custom object model.
2. Use DAR deployer to install the DAR that contains the new attributes.
3. Perform the following to import the Custom client configuration:
  - a. Navigate to **File** and select **Import configuration**.
  - b. In the **Open** dialog box, select the **custom document** zip file that you want to import to OpenText Documentum CM for Engineering.
  - c. In the **Import** dialog box, select the options as shown in the following image.



- d. The following lists the default custom document configurations that are added during the import process.

Default Configurations	Name
Creation Profile	AOCustomer Operations Doc
Default values template	AOCustomer Ops Document

Default Configurations	Name
Dictionary	Custom Type Doc Status Object Model Mapping
Context	AOCustomer Ops Document
Lifecycle	AOCustomer lifecycle
Auto link	AOCustomer Ops link
Auto naming	AOCustomer Type Naming
Property page	AOCustomer Ops New Document Property Page
Template list	AOCustomer Templates

4. You can update Context, Creation Profile, and Dictionary according to your requirement.

The following diagram shows the difference between the existing and updated config details:

The screenshot displays two side-by-side configuration tables, likely from a software interface. Both tables have tabs for 'Languages' and 'Alias' at the top. The left table has columns: Key, ao\_document, and Allow Duplicates. The right table has columns: Key, ao\_document, Allow Duplicates, and ecs\_doc. Both tables include buttons for 'Add alias', 'Remove alias', and 'Remove value'. The left table contains 13 rows of data, while the right table contains 15 rows of data, showing additional mappings for 'ecs\_id\_number', 'ecs\_doc\_type\_name', 'ecs\_approvers', 'ecs\_authors', 'ecs\_consumers', and 'ecs\_reviewers'.

Languages   Alias				
		Add alias	Remove alias	Remove value
Key	ao_document	Allow Duplicates	ecs_doc	
ao_discipline_s	ao_discipline_s	No	object_name	
ao_project_notifiers	authors	No	ecs_authors	
ao_project_number	ao_project_number	No	ao_project_number	
ao_project_title	ao_project_title	No	ao_project_title	
ao_source_doc_name	object_name	No	object_name	
ao_source_doc_number	ao_control_doc_number	No	ecs_id_number	
ao_source_doc_type	document_type	No	ecs_doc_type_name	
approvers	approvers	No	ecs_approvers	
contributors	authors	No	ecs_authors	
coordinators	doc_coordinators	No	ecs_consumers	
readers	readers	No	ecs_reviewers	
reviewers	reviewers	No		

The following is the mapping of target states for return to Ops feature:

The screenshot shows a configuration table with tabs for 'Languages' and 'Alias'. The table has columns: Key, Initial State, and Target State. It includes buttons for 'Add alias', 'Remove alias', and 'Remove value'. The table contains 4 rows of data, defining target states for 'ao\_document' (Sent to Ops) and 'ecs\_doc' (Ready for Use).

Languages   Alias				
		Add alias	Remove alias	Remove value
Key	Initial State	Target State		
ao_document		Sent to Ops		
ecs_doc	Draft	Ready for Use		

### 21.3.1 Configuring Custom Documents that are Returned to Operations

The existing documents in Active Projects are of the `ao_document` type. These documents return to Operations as `esc_document` (custom document).

Perform the following in client configuration:

1. In client configuration, navigate to **Creation** and select **Default value template**.
2. In the available default value templates, select **AO Return Project Document As Custom Doc**.
3. Click **+** to add a new entry.
4. Select `legacy_source_type` key and add the default value as `esc_document`.
5. Click **Save**.
6. Navigate to **Data** and select **Dictionary**.
7. In the available dictionaries, select **System Minor Project Closure Mapping**.

The dictionary contains the following:

- **Key:** Specifies the Project Document Type (`ao_doc_type_name`) of project document (`ao_document`).
  - **Operations Doc Type:** Specifies the category type (CAT1, CAT2, CAT3, CAT4) in the Operations area.
  - **Category:** Specifies the numerical representation of the category type.
  - **Default Value Template:** Specifies the default value template.
8. Navigate to the **Alias** tab.
  9. In the **System Minor Project Closure Mapping** dictionary, you can configure the dictionary by adding the required values for **Key**, **doctype**, and **Category** and then select **AO Return Project Document As Custom Doc** as the default value template for the selected or added rows.

### 21.3.2 Configuring the Right-Click Menu for Custom Documents

To configure the menu, you can refer to “[Configuring Right – Click Menu Options](#)” on page 335 section.

To enable **Creating Bulk Project Working** option, you must execute the following DQL query:

```
update dm_dbo.ao_action_menu set property_name='none||none||category||a_
status||none||ao_can_be_in_wo', property_value='ao_document;ecs_doc||ao_
working_copy||1;2;3||Effective;Ready for Use||ao_doc_coordinators||T',
property_conditions='none||none||=||=||none||=', show_if_invalid='0||0||
0||0||0||0', condition_class='IsObjectType|| IsNotObjectType||
```

```
HasAttrValue||HasAttrValue||IsUserInGroup||HasAttrValue' where menu_id='menuBulkCreatePWC'
```

You can use this query to create bulk project working option for **ecs\_doc** object type that are in **Effective** or **Ready for Use** status.

### 21.3.3 Creating a Project Working Copy for Custom Document

Users with doc coordinator role can create a project working copy of a as-built document and have it automatically filed to the Active Projects.

You must select a custom document for creating a project working copy.

Follow these steps to create a project working copy for a custom document:

1. Log in as a Doc Coordinator.
2. In **AO folder**, select a custom document.
3. Click **New > Content**.

In the **New Content** dialog box, note that the working copy is displayed as a creation profile.

4. Select **Project Working Copy- An operations document copy shared to project managed in Asset Operations** for Artifact.
5. Click **Next**. The object is autonamed by default.
6. Type the required title for the project working copy document.
7. Select **Internal or External** for Source.



**Note:** You can select the **External** option for sending the working copy document to a transmittal. Here, **Can be in a Transmittal** option is selected by default. On the **Classifications** tab, you can view the project working copy properties with the inherited operational document properties.

8. Select **Project Title** and **Project Number**. The project title is retrieved based on the Facility you selected. Here, only Active Projects is displayed. The project number is automatically retrieved based on the project title selected.
9. Click **Next**.
10. You can view the Project Working Copy document.

10. Type the required description and click **Check In and Finish**.

A new Project Working Copy document that is related to the custom source document with Minor Project configurations applied is created in the selected Projects cabinet.

### 21.3.4 Creating Bulk Project Working Copy for Custom Documents

1. Log in as a Doc Coordinator.
2. Navigate to a folder that contains custom documents and select all the required documents.
3. Right-click and select **Create Project Working Copies**.
4. In the **Bulk Create Project Working Copy** dialog box, select one of the available Active Projects.
5. Select Source as **External or Internal**.
6. If you select **External**, select the required **PO Number**, **Planned Date**, and **Issue Reason**.
7. Click **OK**.
8. Navigate to the **Relations** tab to view the working copy relation created for these custom documents.

### 21.3.5 Consolidating Documents to Operations

In Active Projects, you can select a document and move it to the Operations area. The Active Projects will still be in the Active state and only a set of documents is copied to the Operations area. The existing document remains in the Active Projects area. This is applicable for Document and Project Working Copy Document.

Follow these steps to consolidate documents to the Operations area:

1. Log in as Project Controller.
2. To set the target state for the latest document, navigate to a project, and right-click it, and select **Set Project Document States**.
3. In the **Change State** dialog box, select the **Project Document Target State** and **Working Copy Target State** options.



**Note:** You must set the change state option once for a project.

4. Navigate to **Active Projects > Facility Name > Projects** and select the documents that are in the **Latest** state.
5. Right-click and select the **Return to Ops** option. The document moves to the Operations folder. You can follow the same steps for sending the Project Working Copy back to the Operations folder.



**Note:** When you move the document to the Operations folder, the document is added to the respective **<Operations>><Facility\_Name>** > **<Area>** > **<System>** folder path and a project working copy document is moved to **Operations > Projects > <Project Number> > <Working Copy>** folder path.

When a project working copy is moved back to the Operations folder, the Project Controller must validate the changes and accordingly update the working copy document that exists in the Operations folder.

### 21.3.6 Closing a Project

Closing a project enables Project Controller to share the latest content to the Operations folder for use or for consolidation with source as-built. In addition, closing a project disables new project content creation and moves the project content into a closed project area.

To close the project, follow these steps:

1. Log in as a Project Controller.
2. Navigate to the **Active Projects** folder. Select one of the projects that you want to close.



**Note:** All the project documents must be in the **Latest** or **Cancelled** state before closing a project.

3. Right-click the project config and select **Close Project**.
4. In the **Change state** dialog box, select the required target state for the Project Document and Working Copy.
5. Click **OK**.

The status of the project changes to **Pending Closure > Closed**. After the close project job is executed, the project documents that are in the Latest state moves to the Operations area and the working copy moves to the Working Copy folder in the Operations area. If any error occurs, the project state changes to Invalid. Double-click the project config to view the error message. You must correct the error and retry closing the project.



**Note:** Note that the Project documents that are checked out remain in the Active Projects folder. The Project cannot be closed until the Project Document is checked in or Cancel checkout task is completed.

All the Projects documents that are marked as **Do Not Move to Operations area** can be viewed in the Closed Projects folder.

