EMC® Documentum® Compliance Manager

Version 6.5

User Guide

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Preface

This guide describes the behavior of the default Documentum Compliance Manager (DCM) user interface. Your installation might be customized. If so, the interface items you see might not correspond to those described here.

Intended audience

This guide is intended to be utilized by end users working with the DCM user interface. To perform administrative functions, refer to *Documentum Compliance Manager Administration Guide*.

Revision history

Revision history

Revision Date	Description
July 2008	Initial publication.

Related documentation

The information in this guide refers to concepts and procedures described in *Documentum Compliance Manager Administration Guide*. This guide contains information, instructions, and procedures for the normal system user tasks of a Documentum Compliance Manager application. It gives you an overview of DCM followed by procedures that describe how to work with DCM.

How to use the DCM User Guide

Documentum Compliance Manager extends Webtop, and because DCM extends Webtop functionality all available functionality in the DCM user interface (UI) is accounted for in this user guide.

Selecting any occurrence of the word "topics" in the Index takes you to the respective topics listed for a major heading, chapter or section.

Chapter 1

Introduction

This section gives an overview of the following:

- Introduction to DCM, page 19
- Locator usage, page 24
- DCM architecture, page 24
- DCM key concepts and features, page 25
- What is a repository?, page 25
- What is your checkout directory?, page 27
- What is a controlled workflow, page 27
- What is your inbox?, page 28
- What is a document lifecycle?, page 28
- What is a permission set?, page 28
- Document class, page 29
- Controlled documents, page 30
- Document relationships, page 30
- Roles, page 31
- Lifecycle states specific to DCM, page 33
- Auditing, authenticating, and signing off documents, page 34
- Supported date format, page 34
- Versions, page 35

Introduction to DCM

Documentum Compliance Manager (DCM) provides the ability to control documents using document classes, at its heart, to merge other configuration objects such as business applications, lifecycles, relationships, and auto-naming schemes, needed to control formatting and naming of documents checked into a DCM managed repository.

Configuration objects for creating user list rules, notifications, and PDF stamping services are also available for review and sign off processes. Controlled workflows, when needed, can be configured on a document class or business application to route notifications and sign off tasks.

DCM is a Web Development Kit based application (WDK-based application). Among other WDK-based applications is Webtop on which DCM is built.

A WDK-based application is built on WDK functionality. A WDK-based application lets you access an EMC | Documentum repository over the web.

WDK functionality lets you access, edit, and manage content in multiple repositories. WDK functionality lets you distribute content through automated business processes, restrict access to content according to permission sets, and assign version numbers to content to help keep track of revisions.

DCM Distinguishing Features from Webtop — The following opening paragraphs and screen captures identify those features that distinguish DCM from Webtop.

Documentum Compliance Manager (DCM) extends Webtop capabilities to provide enhanced document management capabilities. Extended capabilities add features to better manage controlled documents using workflows and signoffs.

Although the DCM and the Webtop user interface (UI) appear similar, DCM may add features or modify existing features, for example: checkin of a controlled document, My Signoffs node, and reports.

Note: If you can see My Signoffs and Compliance, you are in the DCM user interface. The presence of a DCM node in the navigation pane under the Administration node/menu is another indication that you are in the DCM user interface. Although these visual indicators are specific to DCM, it is important to note that an administrator sees a slightly different UI from someone who is only a user. The Administration node in particular is not available to a user. All functionality and nodes are available to the individual who has Administrator rights. If you are an Administrator you need to refer to the *Documentum Compliance Manager Administrator Guide*.

Figure 1. DCM user navigation pane

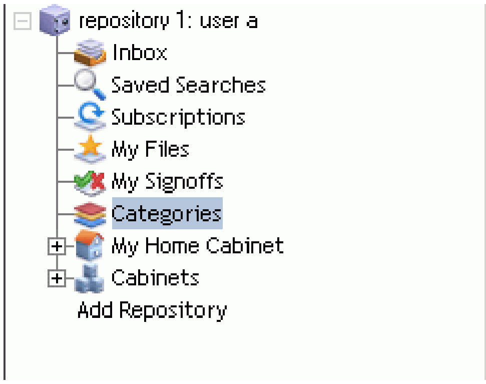
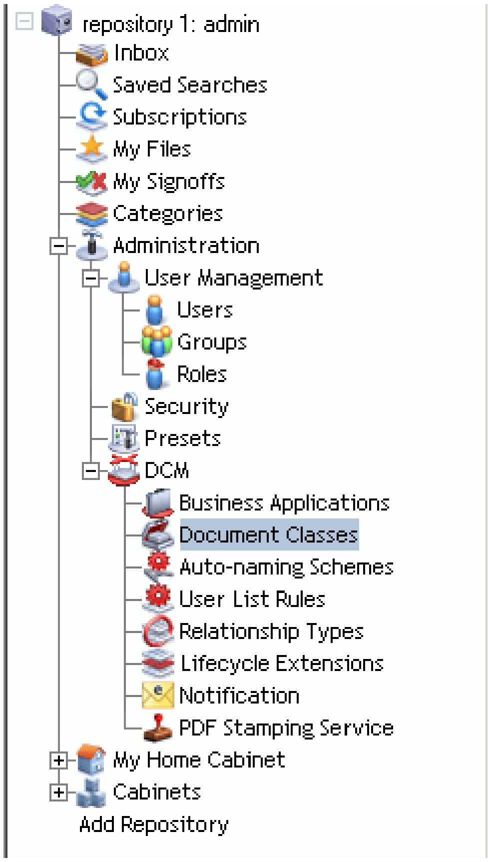


Figure 2. DCM menu bar

Figure 3. DCM administrator navigation pane



What DCM Can Do for You

In addition to standard WebTop functionality which is inherited by DCM, DCM provides the ability to:

1. automatically attach a lifecycle to a controlled document upon creation or import
2. enforce certain lifecycle states
3. restrict manual transition from one state to another
4. prevent the document from being deleted in certain states
5. schedule automatic review of any and each approved, in use (effective) document
6. make approved documents in use (effective) upon a certain date
7. make a version of an approved document in use or effective, for a temporary period of time, suspend the currently effective document and then reinstate the original to in use, effective after the temporary period expires
8. move a document from in use, effective to retired state upon a certain date

9. move a document from in use, effective to retired state when a new version becomes in use, effective
10. move an entire family (version tree) of documents from the in use to the records management (Obsolete) state
11. control versioning such as enforcing new in use (effective) versions to be whole numbers
12. delete all pre-effective versions of a document upon a version of the document becoming in use, effective
13. force documents to revert to the base state upon checkin at any stage in the lifecycle
14. manage renditions such as force the creation of a new rendition of a document upon check-in if it already had a rendition
15. overlay static or dynamic information, in real time, on content during viewing, printing, and export, with different overlays during each activity
16. enforce different View and Print overlays
17. limit view access to the PDF renditions to users in general, only allowing access to the original to certain roles
18. limit the access to approved, in use (effective) documents to the consumer role, this is without ACL's
19. enforce printing and file controls i.e. control where printing is done and by whom
20. control whether people can export files
21. limit search results to only approved, in use (effective) documents
22. manage a set of templates for each document type
23. relate documents and take them through their lifecycle together as a group. (not a VDM but very similar in functionality)
24. support a change process through change request and change notice functionality
25. enforce unique naming of documents
26. auto number documents
27. configure enhanced, audited notifications including TBRs
28. support enhanced auditing in general
29. extended the lifecycle processing e.g. the ability to associate a set of workflows with a lifecycle state
30. limit authoring of controlled content to a specific group, and manage a set of authors for each document class

31. manage and control a set of signatories both mandatory and optional for each document class
32. assist companies to comply with 21 Code of Federal Regulations part 11 by capturing, auditing, and manifesting e-signatures

Locator usage

In many instances a locator is displayed whenever an item needs to be added while creating or configuring DCM. The locator displays a list for you to pick and choose from.

Items in a locator, "Choose a type" for example, are selected in the left pane and moved to the right pane using the arrow, between the two panes, that points to the right pane. The left arrow is used to undo/remove items inadvertently selected. Make sure "Items per page" is set accordingly to display more or less of the items in the left pane. You can also narrow the items displayed according to search text you enter at the top of the left pane. The items returned would start with the text you provide. Click **OK** when you are satisfied with the items added to the right pane.

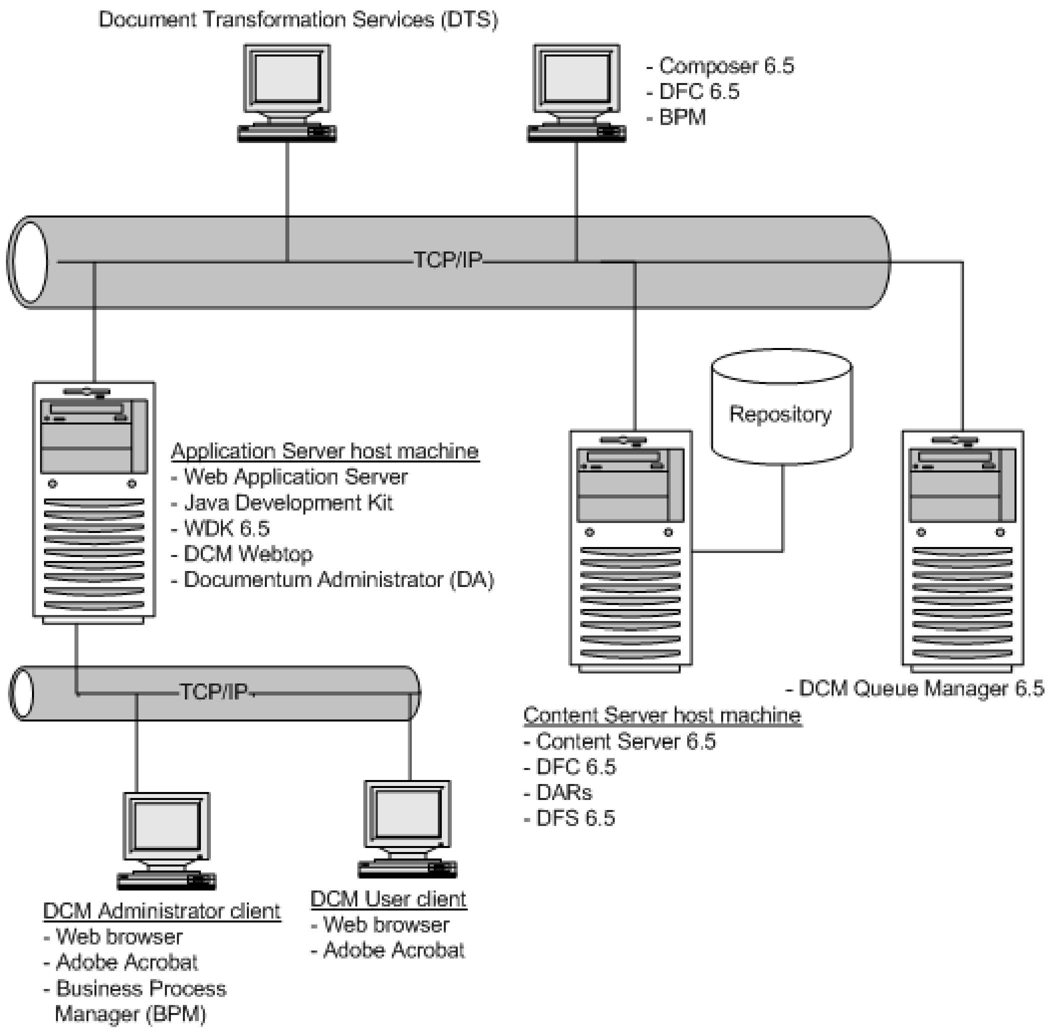
DCM architecture

DCM is built on Documentum Content Server, and is based on the Web Development Kit (WDK) platform.

Typical installation configuration

The following figure shows the basic installation configuration for a DCM system:

Figure 4. Typical installation configuration



DCM key concepts and features

What is a repository?

A repository is a virtual storehouse for the content you work on and share with other employees. Each DCM managed repository provides security, tools, and processes for sharing content among many users. DCM managed repositories use lifecycles to manage content and processes such as automatic document naming and formatting, automatic routing for review and sign off as well as notifications, and the many other capabilities listed in the Introduction to DCM. DCM allows you to create, edit, and forward content regardless of your technical expertise.

A repository stores two kinds of information for a content file:

- The content, which is the text, graphics, sound, video, binary content, or other content that makes up the file.
- The properties, which are descriptive characteristics about the file, such as creation date, author, version number, and other information. Property values can only be edited by the file's creator or a user with the required permissions.

The highest level of organization in a repository is the repository's nodes. The nodes provide access to different repository functions and to different ways to organize a repository's content. All content in a repository can be accessed through the repository's **Cabinets** node, which organizes the content into cabinets and cabinet folders. Other nodes provide other organizational schemes for giving you access to content, such as according to the files you use most often, the files you have used recently, or other schemes configured by your organization.

In each repository, you have your own home cabinet (My Home Cabinet), with your name on it. Only you can see or access your home cabinet. Your home cabinet is where you store personal documents.

In each repository, you have your own Inbox. Your Inbox displays tasks that have been assigned to you and displays any notifications you have requested when specific actions occur.

When you want to modify a file, you check it out from the repository. This locks the file so only you can modify it. Other users can view it but cannot make changes to it. When you complete your changes to the file, you can check it back into the repository, which replaces the previous version of the file in the repository with the updated one. The previous version of a document is still available. Checking in also unlocks the file so that other users can modify it.

When you create or import a file in the repository and check it in, DCM gives it a version number. DCM assigns the version number based on how it is configured. the version number may begin at 1.0 or 0.1. DCM automatically increments the version number by a decimal point every time you check out the file and then check it back in. DCM provides enhanced version control such that it can be configured to allow or disallow same version checkin and saving of a document.

In addition to content, a repository also stores other items, such as workflows (the automated sequences for routing files), permission sets, and user profiles. Every item in a repository whether content or not is stored as a repository *object* with a defined *object type*. Content files typically have an object type of *dm_document*. The object type determines the types of properties associated with the object.

The content in a repository is managed by the Documentum Content Server.

What is your checkout directory?

When you check out files from a repository, DCM downloads the files to a location on your computer. This location is your checkout directory.

You can open, edit, and close the file directly from your checkout directory, whether or not you are connected to the repository. When you are ready to save the file back to the repository, you check it back in.

By default, your checkout directory is in one of the following locations:

- **On Windows operating systems:**

  //Documentum/Checkout

- **On Macintosh operating systems:**

  Root:Users:*user_name*:Documentum:Checkout

You can change the location of your checkout directory in your DCM preferences.

In some cases, when you check out a file, DCM might not copy it to your computer but instead stream it to your computer. Whether this happens depends on the file's editing application. If DCM streams the file to your computer, it is not saved to your local machine.

What is a controlled workflow

Note: Workflow is a Webtop feature leveraged by DCM. Although DCM supports standard workflows it also supports controlled workflows. DCM, in Documentum 4, does not support routing of controlled documents for signoff or auto-promotion. DCM, in Documentum 5 and Documentum 6, does support workflows for both controlled documents and uncontrolled documents including auto-promotion.

Also note, DCM currently limits packages to one for controlled workflows. Only one package may be used to attach a file in a controlled workflow.

Standard workflows are used to manage uncontrolled documents whereas controlled workflows are used to manage controlled documents. DCM provides the ability to route uncontrolled documents using standard workflows and the ability to route controlled documents using controlled workflows. The DCM user interface inherits the menu option for workflows from Webtop and adds a separate menu item for controlled workflows. **Workflow** for uncontrolled documents is listed under the **Tools** menu item. **Start Controlled Workflow** for controlled documents is listed under the **Compliance** menu item.

What is your inbox?

Your Inbox contains the tasks and notifications sent to you. Tasks are electronic assignments sent to you as part of a workflow or controlled workflow. When you receive a task, you choose whether to accept it or reject it. When you complete a task, you forward it. The workflow notifies the next user in sequence. Tasks can include attached files.

Notifications are messages letting you know when a specific action has occurred on a document. You choose to be notified about certain events by selecting the appropriate notification option in the document's properties.

What is a document lifecycle?

A document lifecycle is a sequence of stages (also known as states or phases) a document goes through between its creation and expiration. Each stage, depending on how it is configured, determines what operations to perform or not perform against the document(s) it contains. When you create a document, DCM assigns a document lifecycle to the document and puts the document into the first stage of the lifecycle.

Typical lifecycle stages include *In Progress*, indicating a document is in its draft phase, and *In Approval*, indicating a document is complete and ready for sign offs. By default, DCM does not let you make changes to a document that is in the *In Approval* lifecycle state.

A document advances through its lifecycle stages through either manual or automatic promotion. Notificatons and associated task(s), depending on how each lifecycle stage is configured, can be workflow delivered or manually delivered if a workflow or controlled workflow is not selected for the applicable state. You are alerted to your role in a document's lifecycle when a notification appears in your Inbox.

What is a permission set?

A permission set determines the level of access assigned to a group or individual. Each item in the repository has an associated permission set that identifies the level of security needed for a group or individual to access the item and what actions they can take. Your access to a repository item is determined by the permission set assigned to the item.

A permission set lists the users and groups who have access. The permission set assigns one of the following seven access levels to each user and group listed. Each access level includes all the permissions of the preceding levels:

- None: No access to the item.

- Browse: Users can view the item's properties (but not its content).
- Read: Users can view the item's content.
- Relate: Users can annotate the item.
- Version: Users can modify and check in new versions of the item.
- Write: Users can modify and check in the item as the same version.
- Delete: Users can delete items.

Document class

A document class is created based on a document type selected and the business application selected. You can create a document class associated to a particular business application so that documents of the type selected are processed against the values specified for the attributes on the **Info** tab. Values specified for the attributes across each of the tabs match the values of the business application selected and are all inherited by default. Deselecting the **Inherit** option against an attribute allows you to make the necessary modifications.

DCM provides a default set of document types. DCM is designed to control documents of many different types. The DCM document types are described in the table below.

Figure 5. Create tab used to select the document Type

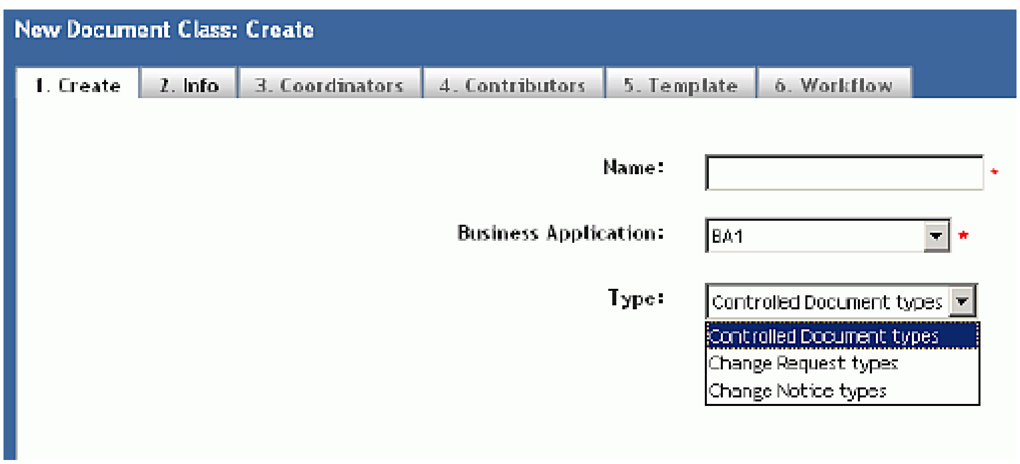


Table 1. Document types

Document Type	Description
dm_document	Any dm_document type, includes dm_document or its subtype, which can be a controlled document.

Document Type	Description
dcm_change_request	A request for a change to an effective controlled document.
dcm_change_notice	Official notices announcing and describing a change to a controlled document.

These controlled document types are provided by default at installation, but the DCM administrator may modify or create new ones as desired. For example, your administrator can:

- add new document types
- delete existing document types
- rename default document types (only support_doc cannot be renamed)

If your administrator made any such changes, the examples in this guide will look different from what you see in your application. DCM works the same way for custom document types your administrator creates.

Controlled documents

Documents managed by DCM are called **controlled documents.** Controlled documents advance through a series of lifecycle states and typically undergo some form of review and signoff before advancing to the Approved or Effective state in their lifecycle. The document class for a controlled document is configured by your administrator.

DCM provides change requests, change notices, and controlled workflows as mechanisms for review, signoff, and promotion.

Note: To determine if a document is a controlled document you have only to click on the Properties icon of the document to see if it contains a **Restricted Info** tab. If the Properties dialog box of any document does not contain a Restricted Info tab the document is uncontrolled. For additional details refer to Working with the restricted properties of a controlled document, page 54.

Document relationships

Document relationships define dependencies between documents. DCM supports multiple custom relationship types that can simply link documents together or help automate review and signoff processes.

A relationship type is created by an administrator and when you create an attachment for a controlled document, you pick from a list of relationship types. The relationship type specifies whether signatures and changes of state against parent documents are propagated down through to child documents. When you set up the attachment, you have created an instance which is a relationship.

For example, if a change request is issued against an SOP, then the change request has a relationship with the SOP. Relation types can be unique to specific document types.

When a document is approved or promoted, DCM looks up the relationships defined for that document to decide whether the document will be approved or promoted separately or as part of a group.

Relationships in DCM are useful if you want to:

- tie content together in related documents
- specify whether signatures and changes of state against parent documents are propagated down through children documents
- manage change sets using change notices and their related documents

DCM is installed with the following predefined relationships:

- Against
- Process
- Reference
- Supports

For more information on document relationships refer to *Documentum Compliance Manager Administration Guide*.

Roles

DCM installation automatically creates the following four roles:

- business application owner

  The creation, viewing, and editing of business applications are restricted to members in this role. If you are not in this role, the business application node in the administration tree will not be shown. As well, members in this role have the same abilities as members in the document class owner role.

- document class owner

  The creation, viewing, and editing of document classes are restricted to members in this role. If you are not in this role (or the business application owner role) , the document classes node in the administration tree will not be shown.

- functional area supervisor

  The creation, viewing, and editing of business processes are restricted to members in this role. Typically, functional area supervisors are responsible for managing the groups that are used to determine who needs to signoff a document (based on a document class).

The following table describes what the various roles can do.

	Business Application owner	**Document Class Owner**	**Functional Area Supervisor**
Create/Edit/View/ Delete Business Applications	X		
Create/Edit/View/ Delete Document Classes	X	X	
Create/Edit/View/ Delete Autoname Schemes	X	X	
Create/Edit/View/ Delete Business Rules			X
Create/Edit/View/ Delete Relation Types	X	X	
Create/Edit/View/ Delete Lifecycle Extensions	X	X	
Lock/Recall/ Controlled Print			
Administrator access	X	X	X

These predefined role names cannot be changed. However, you can add or remove users from these roles.

The following is a list of the other roles that are available when you install a DCM system:

- queue_admin

  User who can create and manage work queues and their policies.
- queue_manager

  User who monitors work queues and assigns users to work on queue items.
- queue_processor

  User who works on items from one or more work queues.
- process_report_admin

  User with permission to run historical workflow reports.

- approver

  Approver Role.
- author

  Author Role.
- consumer

  Consumer Role
- contributor

  Contributor Role
- coordinator

  Coordinator Role
- administrator

  Administrator Role

Lifecycle states specific to DCM

DCM allows the customer to define their own states. DCM understands the meaning of states by looking at the state type.

A typical DCM lifecycle should consist of an initial state such as In-Progress or Review. This state may be followed by several change management states such as Review, In Approval, and Approved. A valid DCM lifecycle should consist of states that use the **dcm_approved** and/or **dcm_effective** state type. In DCM, a document is considered the main or active document if it is in a dcm_effective state. The DCM lifecycle states available out-of-the-box are:

- In Progress (dcm_in_progress)
- Review (dcm_review)
- In Approval (dcm_in_approval)
- Approved (dcm_approved)
- Training (dcm_training)
- Effective (dcm_effective)
- Retired (dcm_retired)
- Obsolete (dcm_obsolete)
- Suspend (dcm_suspended)
- Rejected (dcm_rejected)

For more information on document lifecycles refer to *Documentum Compliance Manager Administration Guide*. For more information on using lifecycles refer to Chapter 10, Lifecycle Extensions.

Auditing, authenticating, and signing off documents

DCM supports electronic signatures for the purposes of auditing, authenticating, and signing off documents. Auditing is a security feature that allows you to monitor events that occur in a repository or application. Events are operations performed on objects in a repository or something that happens in an application. Auditing an event creates an audit trail, which is a history in the repository of the occurrence for the event. Creating an audit trail is a useful way to prove compliance.

Many business processes have signature requirements for one or more steps in the process. Similarly, some lifecycle states may require a signature before an object can move to the next state. For example, a budget request may need a signoff signature before the money is disbursed. Users may be required to sign against an SOP to indicate that they have read the procedures or, a document may require a signoff signature before the document is published on a Web site.

For more information on auditing and electronic signature refer to *Documentum Compliance Manager Administration Guide*.

Supported date format

Documentum Compliance Manager supports the following date formats:

- MM-DD-YYYY
- MM/DD/YYYY
- DD-MM-YYYY
- DD/MM/YYYY
- YYYY-DD-MM
- YYYY/DD/MM
- YYYY-MM-DD
- YYYY/MM/DD

Your regional settings determine which format you should use when you type a date.

To check your regional settings on Windows client machines:

1. Choose **Start > Settings > Control Panel > Regional and Language Options**.

2. Select your language and country from the **Regional Options** tab.

   The short date and long date format will change with the language and country you choose.

Versions

When you check in a controlled document the controlled document is identified by a version number and version label provided by DCM based on document class settings. Numbers and labels help you keep track of different versions of a controlled document. DCM increments version numbers based on the controlled document class of a controlled document starting with 1.0 or 0.1 and adding one to the number after the decimal point for each revision, unless you specify otherwise. When checking in a controlled document, the document class controls whether or not to increment to a major or minor version, or keep the same version.

DCM can be configured to assign a whole number to the controlled document when it reaches the dcm_effective state.

DCM marks the effective controlled document with the CURRENT version label regardless, whether it is the latest version of the contolled document or not. For some controlled document types the dcm_effective state may be called the Approved state.

The "Most Recent" version label is the label assigned to the latest edition/version of a contolled document that is checked in. The "Most Recent" version of a controlled document when it is in the Effective state is also labeled the CURRENT version.

About notifications

Notifications are messages that appear in your DCM Inbox and if configured for it, your email Inbox. Notifications are intended to alert/notify users to a task or to inform them of an event. To Be Read (TBR) notifications and Signoff required notifications for example prompt users to respond to a task. Event notifications however inform users of various actions taken and system events. Examples of event notifications, user events and system events, are included in the following list.

- Controlled Document Promoted Successfully
- Import Controlled Document Error
- Cancel Reject
- Job Failed
- Autoname Exhausted
- Autoname Available Names Low

- Signoff Required
- Signed Off
- Rejected
- Add electronic signature failure

Most of the notifications can be deleted from the Inbox, however a user cannot delete TBR Notifications. A TBR Notification must be confirmed.

Refer to the *Documentum Content Server API Reference* manual for detailed information about events.

Chapter 2

Sign Off Tasks

This chapter describes the procedures associated with the e-signing of controlled documents:

- Overview, page 37
- Initiating the sign off process for a controlled document, page 39
- Assigning signatories, page 41
- Signing a controlled document, page 42

Note: The terms document and workflow mentioned within this chapter shall be considered controlled documents and controlled workflows.

Overview

DCM provides the ability to capture and manifest electronic signatures associated with an object.

E-signatures:

- Can be configured in any state, in more than one state or not at all
- Require that the document have a PDF rendition
- Require that the signatory provide two forms of authentication, logon id and password
- Require a reason which is configurable
- Require that the user indicate the role they are representing when signing
- Are recorded in the audit trail of the object
- Are tested to verify that the object has remained unchanged from the initial signature onward
- Are manifested on a signature page which depending on configuration is at the front or the back of the PDF rendition of the content

The sign off process can be initiated from a lifecycle process where all signatories receive the content for signing in parallel or from a workflow. DCM can be configured to automatically promote the content to the next state after the final signatory signs the content. If the content is altered in any way after the first signature has been applied, all signatures are invalidated and the signoff process is terminated. The PDF rendition on which the signatures are manifested can be altered using import as a rendition feature, prior to the first signature being applied. Once the first signature is applied, DCM does not allow any changes to the rendition including the re-rendering of the content.

The sign off process forces signatories to review the controlled document before they decide which action to take, whether to pass it (Signoff to approve) or to fail it (Reject to disapprove). Although required signatories can provide their individual sign off to approve a controlled document, a single signatory can acquire sign off to approve the controlled document on behalf of the other required signatories if they are all part of an any-member group assigned to the task. The sign off process is halted and paused when a required signatory rejects the controlled document. When a workflow is used for sign off, the sign off process can be finished automatically by defining a reject flow to route to the end of the workflow. If however a reject flow is not defined or a workflow is not used for sign off, any required signatory who rejects should also perform a cancel reject only to finish the sign off process (that is to allow the process to resume and continue to the end after it has been paused). The **Cancel Reject** option or button is displayed only to that signatory who rejects the controlled document, it is not intended for the signatory to change their decision. A new sign off process must be started for the revised replacement document when a controlled document is rejected. Required signatories also have the option to delegate their sign off responsibility to someone else when necessary.

Sign off actions are performed from the Task Manager for controlled workflow delivered sign offs or from the **Compliance** menu for sign offs handled without controlled workflow. You can **Initiate Signoff** from the **Compliance** menu for controlled documents that are **In Approval**; in the **Review** or **In Progress** state or by starting a controlled workflow.

You can assign required signatories of a controlled document from a predefined list of signatories. Signatories have the option to acquire sign off on behalf of other required signatories, reject a controlled document, or delegate their sign off to someone else.

Troubleshooting tip: restarting the DCM Queue Manager service on each repository can help to clear up potential problems; if there are problems promoting a controlled document or making a controlled document temporarily effective or sending TBR notifications. Further details regarding DCM Queue Manager are contained in the *DCM Installation Guide*.

Initiating the sign off process for a controlled document

Only document owners or document class coordinators can perform this action. The person attempting to initiate the sign off process must first select the document and then decide on one of two ways to initiate the sign off process, either manually or using a controlled workflow. Sign off initiated manually is also referred to as lifecycle sign off. Required signatories, in either case, will receive an email notification in their Inbox alerting them to the required sign off task. Notification along with the task is sent together to the **Inbox** of required signatories when a controlled workflow is started. The task is sent to **My Signoffs** when a lifecycle sign off is initiated.

Note: 1) Care must be taken to ensure that all signatories have at least **Relate** permission on the content routed to them and that the content routed has a PDF rendition.

2) Content can only be in one process at any one time. For example, if a lifecycle process has been initiated for a document then it cannot participate simultaneously in a workflow sign off process. The option to **Initiate Signoff** under the **Compliance** menu is consequently not available for the selected controlled document when a controlled workflow is started instead.

2) The sign off process cannot be initiated either way if the **Status** for the selected document displays anything other than **Standby**.

Status types that can be displayed for a controlled document:

- Signed off
- Pending
- Rejected
- In Rejection
- Standby
- Revising
- Parent Signoff

Status changes for single sign off:

- Once a user is added as a signatory, the status becomes **Standby**.
- Once signoff is initiated, status changes to **Pending**.
- Once document is signed off, signatory status changes to **Signed off**.
- If the document is rejected, signatory status changes to **Rejected**.
- If document was checked out prior to signing off or rejecting, signatory status changes to **Revising**.
- Once checked in, status changes to **Standby** again.

Status changes for aggregated sign off:

- In cases of group aggregation, when a child document is added as an attachment to the parent, its status changes to **Parent Signoff** while the parent remains in **Standby**.
- Once signoff is initiated against the parent document, its status changes to **Pending** while the child status remains **Parent Signoff**.
- Once the parent document is signed off, its signatory status changes to **Signed off** while the child status remains **Parent Signoff**.
- If the parent document is rejected, its signatory status changes to **Rejected** while the child status remains **Parent Signoff**. If the parent document has more than one signatory and it has been rejected, other signatories status changes to **In Rejection**. DCM does not update the child status and it remains **Parent Signoff** for all signatories.
- Once the parent document is checked out, its signatory status changes to **Revising** while child status remains **Parent Signoff**.
- Once parent document is checked in, its status changes to **Standby** again, while the child status remains **Parent Signoff**.
- Once the relationship between parent and child documents is broken, the status of the child signoff changes from **Parent Signoff** to **Standby**. The user needs to initiate the sign off process again whenever a relationship is broken, since the previous sign off is no longer valid.

To initiate the signoff process for a controlled document:

1. Navigate to the state that contains the document to be initiated for sign off, **Cabinets > Controlled Docs > In Progress** for example.
2. Right-click the controlled document (or task) listed in the content pane and select either **Compliance > Initiate Signoff** to initiate sign off manually from the lifecycle or select **Compliance > Start Controlled Workflow** to initiate the sign off process from a controlled workflow.

   Follow these substeps if you decide to start a controlled workflow:

   a. Select a controlled workflow, one that is defined for this document class, from the locator displayed when you select **Start Controlled Workflow** then click **OK**.

      The **Start Workflow** screen appears displaying the workflow and the controlled document selected.

      Optionally, you can add and remove attachments for the task displayed.

   b. Click **Next** to display the **Performers** tab and to select one or more final signatories and one or more initial signatories as the required signatories for the task.

      Workflows shipped out-of-the-box are samples only. Customized workflows may be configured with or without the need for **Initial Signoffs** or **Final Signoffs**. Both initial and final signatory(signatories) must be selected when using workflows shipped with DCM. The general intent for **Initial Signoffs** is to have individual signatories and/or signatories from a group sign off first. The intent for **Final Signoffs** is to have someone such as a manager, one or more if necessary, make the final decision.

c. Click **Finish** to complete the process or click **Next** to add a comment, instructions for example, and then click **Finish**.

3. Optionally, to confirm that the sign off process did initiate, click the **Properties** icon of the selected document then select the **Signoffs** tab. The **Status** field should indicate **Pending**. If **Standby** appears, the sign off process did not initiate.

Assigning signatories

Every document class can have mandatory signatories configured for it for the state(s) in which the e-signature is configured. The mandatory signatories can be configured from the Signatories tab on the lifecycle configuration screen, or from the User List Rules. Signatories can be individual users and/or users who are members of a group(s). When content is promoted to the lifecycle state in which e-signatures are configured, the mandatory signatories will be assigned as required signatories to the signature page of that content, automatically.

In addition, every document class can have optional signatories configured for it for the state(s) in which the e-signature is configured. The optional signatories can be configured against the User List Rules. Signatories can be individual users and/or users who are members of a group(s). When content is promoted to the lifecycle state in which e-signatures are configured, the owner, or a document class coordinator, can assign from the individual(s) and/or group(s) identified as optional signatories, required signatories for the content. Alternatively, required signatories from the optional signatories group may be added by controlled workflow tasks during the execution of the workflow. Which tasks add these signatories depends on the controlled workflow configuration.

Required signatories may be added to content from the point that the content is promoted to the state in which the e-signature is configured, after the initiation of and during the sign-off process, until the final signatory signs the document. Once the final signatory signs the content no additional signatories can be added.

During the document class configuration, individuals assigned as mandatory signatories must have the Mandatory box checked. Groups assigned as mandatory signatories must have the Mandatory boxed checked indicating that everyone in the group must sign off on the document, or the Any Member box checked indicating that any one member of the group can sign off the document. When these mandatory signatories are assigned as required signatories to specific content, they will carry with them their respective boxes appropriately checked as the lifecycle configuration indicates.

At the time of assignment, individuals assigned as required signatories from the optional signatories group, must have the Mandatory box checked. Groups assigned as required signatories from the optional signatories group must have the Mandatory boxed checked indicating that everyone in the group must sign off on the document, or the Any Member box checked indicating that any one member of the group can sign off the document.

Once signatories are assigned to content as required signatories the application treats them the same during the sign-off process regardless of whether they were originally assigned from the mandatory signatories or from the optional signatories with one exception. Those signatories assigned from the optional signatories group may be removed from the sign-off process by the owner or a document class coordinator until the point just prior to where they have signed the content. Once a signature is applied the corresponding signatory cannot be removed.

Note: A document class does not have to have mandatory approvers however for content to be signed it must have at least one individual or group as a required, mandatory signatory, or a group from which one individual must sign off on the document.

Signing a controlled document

A required signatory can acquire signoff, signoff, reject, or delegate to e-sign a controlled document and complete their sign off task. Follow the applicable procedure provided below to locate your sign off task(s) and to provide your e-signature when alerted to a sign off notification.

When the sign off process is initiated, required signatories are notified by email of the task that has been assigned to them. If the sign-off process is configured as a lifecycle based sign off, then all required signatories are notified at the same time. If a controlled workflow initiates the sign-off process, then required signatories are notified sequentially when the task to which they have been assigned as required signatories is initiated by the workflow.

Required signatories must double-click the sign off notification in their DCM Inbox to access the task/controlled document, regardless of the delivery means, whether lifecycle or workflow delivered. Choosing the desired action however is done differently. The desired action for lifecycle delivered tasks is selected from the Compliance menu options whereas the desired action for workflow delivered tasks is selected from button options.

Required signatories responding to lifecycle delivered notifications choose from the following Compliance menu options to sign a controlled document and complete the task:

1. **Signoff** to approve the controlled document.

2. **Acquire Signoff** to approve the controlled document on behalf of required signatories in an any-member group assigned to the task.

   This indicates that this controlled document has been routed to a group of which this individual is a member and anyone in the group may sign the controlled document for the group. When this choice is taken the task is removed from the Inbox of everyone else in the any-member group and the individual executes # 1 above.

   Other required signatories outside of an any-member group assigned to the task would still need to respond to the task.

3. **Delegate** to reassign the task to another individual.

   Delegation can be made to any member of the optional signatories group not already assigned as a required signatory to this content. When this option is executed the new signatory is notified and the process proceeds as described above.

4. **Reject** to disapprove the controlled document, which rejects the controlled document and notifies all signatories.

Required signatories responding to workflow delivered notifications choose from the following button options to sign a controlled document and complete the task:

1. **Forward** to approve the controlled document and route to the next signatory.

   The Forward button is exposed only if the reject flow IS defined. That is, if the **Task Subject** is set to *dcm_signoff_reject*, to support the reject flow.

2. **Finish** is also intended to approve the controlled document and route to the next signatory.

   The Finish button is exposed if the reject flow IS NOT defined. That is, if the **Task Subject** is set to *dcm_signoff*.

3. **Accept** if this is not greyed, to acquire signoff and approve the controlled document on behalf of required signatories in an any-member group assigned to the task. This indicates that this controlled document has been routed to a group of which this individual is a member and anyone in the group may sign the controlled document for the group. When this choice is taken the task is removed from the Inbox of everyone else in the group and the individual executes #1 or #2 above. The screen refreshes to display the Forward or Finish button accordingly, depending on whether the reject flow is defined or not.

4. **Reject** to disapprove the controlled document, which rejects the controlled document and notifies all signatories.

5. **Cancel Reject** is displayed only when the signatory rejects a task/controlled document from a workflow delivered notification that does not have reject flow supported. A controlled document that is rejected remains in the rejected state unless a Cancel Reject is performed.

The Cancel Reject button is NOT displayed at all if the value for the **Task Subject** is set to *dcm_signoff_reject*, to support the reject flow. The Cancel Reject button is displayed and available only to the signatory who rejects the controlled document. It is intended to end and finish the sign off process when a controlled document is rejected. The sign off process is paused when a signatory rejects a controlled document, and therefore can not be finished unless the pause is removed using the Cancel Reject button. It is not intended to undo your decision to reject.

6. **Delegate** to reassign the task to another individual.

   Delegation can be made to any member of the optional signatories group not already assigned as a required signatory to this content. When this option is executed the new signatory is notified and the process proceeds as described above.

Follow this procedure to sign a controlled document against lifecycle delivered notifications/tasks:

1. Navigate to the DCM **Inbox** and look for **Signoff required** notifications.

   Make sure to set the filter setting in the upper right-hand corner of the screen to display only the notifications you want to view, for example: **Show All (Attachments)**, **Show All (Hide Attachments)**, **Show Notifications**. **Show Tasks (Attachments)** and **Show Task (Hide Attachments)** is used to display notifications for workflow delivered sign off tasks.

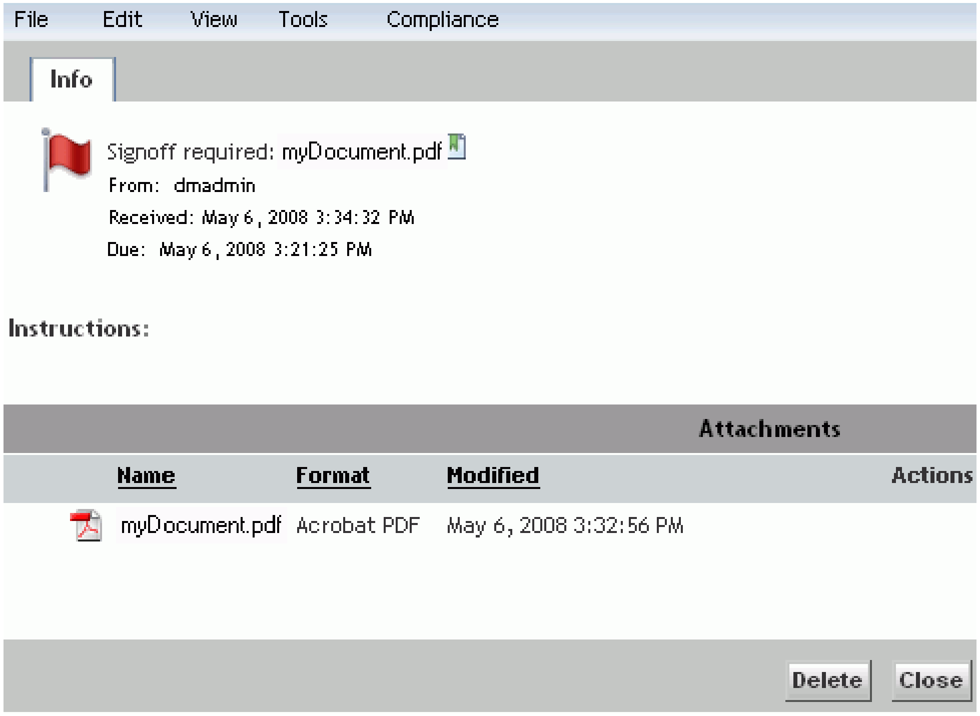
   Note: The task is the controlled document displayed in the content pane and is also considered an attachment. Any other attachments for a task can also be displayed.

   TBR notifications are delivered as high priority, by default, and are recognized by the three red exclamation marks on the icon as illustrated below. The default setting can be changed on the notification configuration file under the Notifications node by your DCM administrator.

Figure 6. Example of a workflow delivered notification

2. Double-click the **Signoff required** notification listed in the content pane to see the controlled document.

Figure 7. Task Manager displayed for lifecycle driven sign off notifications



3. Double-click the controlled document displayed in the content pane to open it from the **Info** tab and to review it or, navigate to **My Signoffs** and select the matching controlled document, the same one identified in the notification itself.

4. Close the controlled document and make sure it is selected, click the controlled document to have it selected.

5. Select **Compliance** and perform/select the desired action, click one of: **Acquire Signoff**, **Signoff**, **Reject**, or **Delegate**. For example, select **Compliance > Signoff** to approve the controlled document.

   You will need to confirm the selected action to complete the process. And, you will also need to provide justification, your user name and password (the same credentials used to login to DCM) whenever a controlled document is approved (signed off) or disapproved (rejected).

   Select a justification code other than the default blank displayed for **Justification**. The list box contains one or more justification codes according to the **Signoff Code** selected on the applicable lifecycle state. The *Default Signoff Justification* option is available in case no justification codes were pre-configured for the applicable lifecycle state. *Other* is also available in case you want to specify a justification code other than those pre-configured on the applicable lifecycle state. Contact the DCM administrator if you need one or more justification codes configured for approving a task and/or for rejecting a task.

Here are the justification codes that can be configured on the applicable lifecycle state for approving a task:

- Meets 21CFR11 requirements
- Meets internal process requirements
- Meets FDA requirements

Here are the justification codes that can be configured on the applicable lifecycle state for rejecting a task:

- Does not meet 21CFR11 requirements
- Does not meet internal process requirements
- Does not meet FDA requirements

Finally, they must choose from the drop down list, **Signoff for**, a role for which they are signing. If they are signing for a group then that will be the default role provided.

Note: The same individual may receive multiple sign-off tasks for the same controlled document. This could be for various reasons including that they were assigned multiple times as a required signatory because they have different roles all of which need to sign-off for this controlled document, or that they are members of multiple groups each of which were assigned as required signatories. A user should take care to sign as a different role each time they sign the same controlled document.

Figure 8. Screen displayed when a controlled document is approved

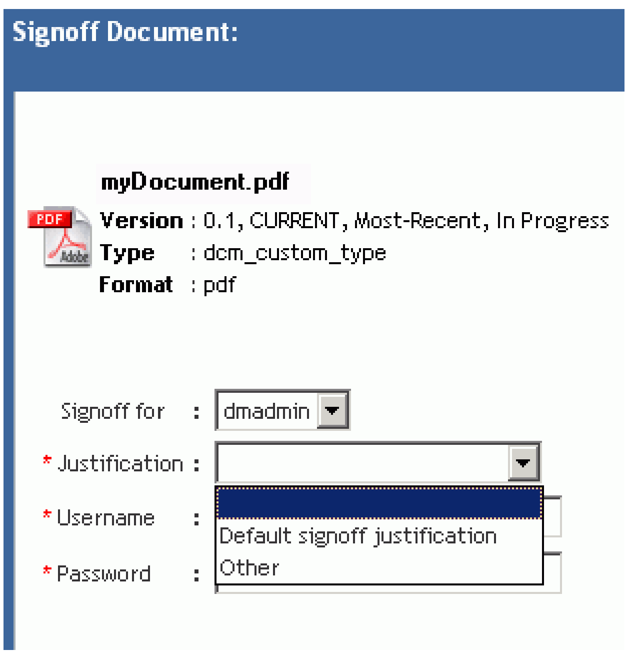
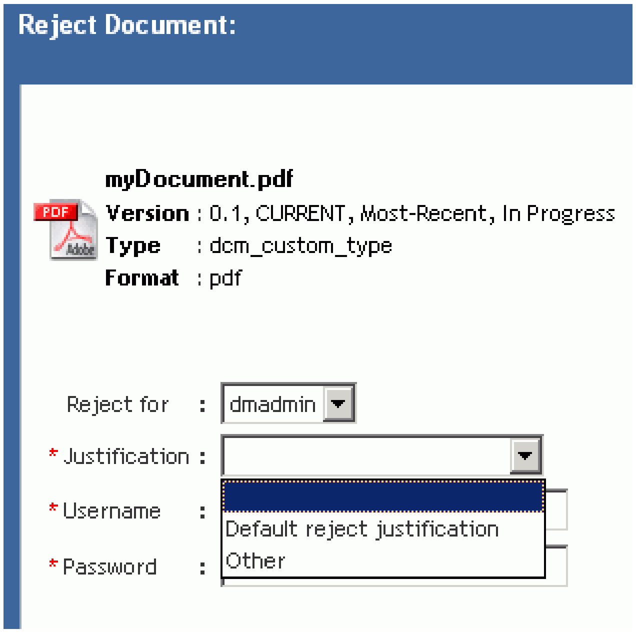


Figure 9. Screen displayed when a controlled document is rejected



Follow this procedure to sign a controlled document against workflow delivered notifications/tasks:

1. Navigate to the DCM **Inbox** and look for **Signoff required** notifications.

   Change the default filter setting in the upper right-hand corner, from **Show All (Hide Attachments)** to **Show Tasks (attachments)** or to **Show Tasks (Hide Attachments)** to display only workflow delivered sign off tasks.

   Note: The task is the controlled document displayed in the content pane under the **Info** tab and is also considered an attachment. Any other attachments for a task can also be displayed.

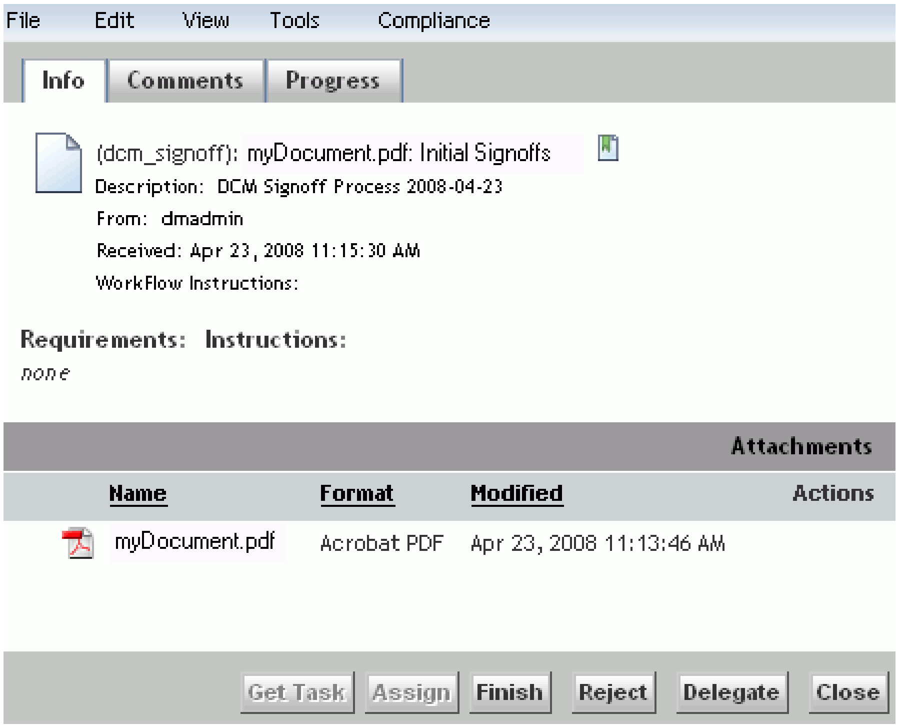
   Workflow delivered notifications are recognized by the green check mark on the icon as illustrated below.

Figure 10. Example of a workflow delivered notification

2. Double-click the workflow notification listed in the content pane to see the controlled document.

   Button options on the Task Manager displayed are exposed based on required signatories assigned as individual users or user groups. The **Forward** and the **Accept** buttons for example are exposed if the signatory is a member of a user group assigned to the task.

Figure 11. Task Manager displayed for individual users



3. Double-click the controlled document displayed in the content pane to open it and to review it.

4. Close the controlled document when you are done reviewing it, to continue.

5. Optionally, you can select the **Comments** tab to add comments and also select the **Progress** tab to view up coming performers and historical events.

6. Click the appropriate button at the bottom of the content pane to perform the desired action.

   You will need to confirm the selected action to complete the process. And, you will also need to provide justification, your user name and password (the same credentials used to login to DCM) whenever a controlled document is approved (signed off) or disapproved (rejected).

   Select a justification code other than the default blank displayed for **Justification**. The list box contains one or more justification codes according to the **Signoff Code** selected on the applicable lifecycle state. The *Default Signoff Justification* option is available in case no justification codes were pre-configured for the applicable lifecycle state. *Other* is also available in case you want to specify a justification code other than those pre-configured on the applicable lifecycle state. Contact the DCM administrator if you need one or more justification codes configured for approving a task and/or for rejecting a task. Refer to the above procedure for examples of justification codes.

Figure 12. Screen displayed when a controlled document is approved

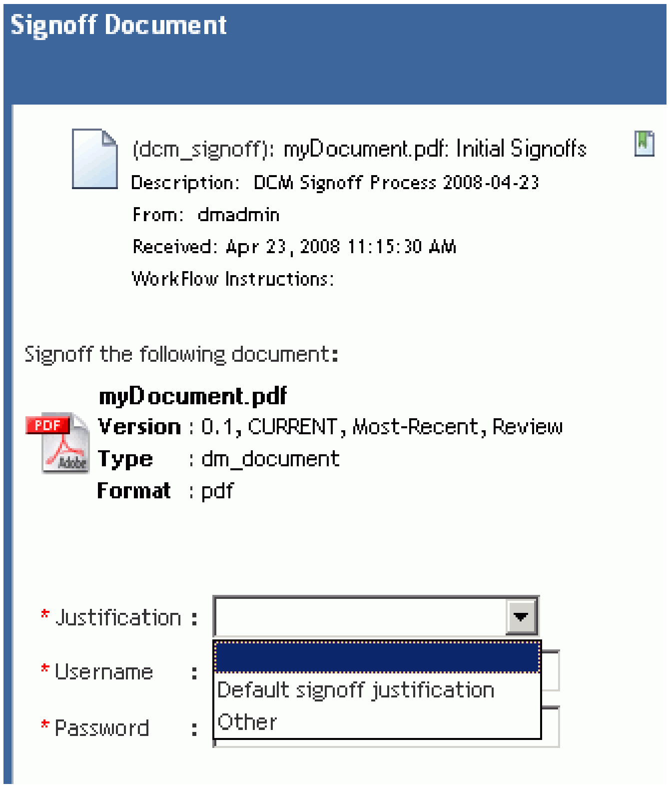
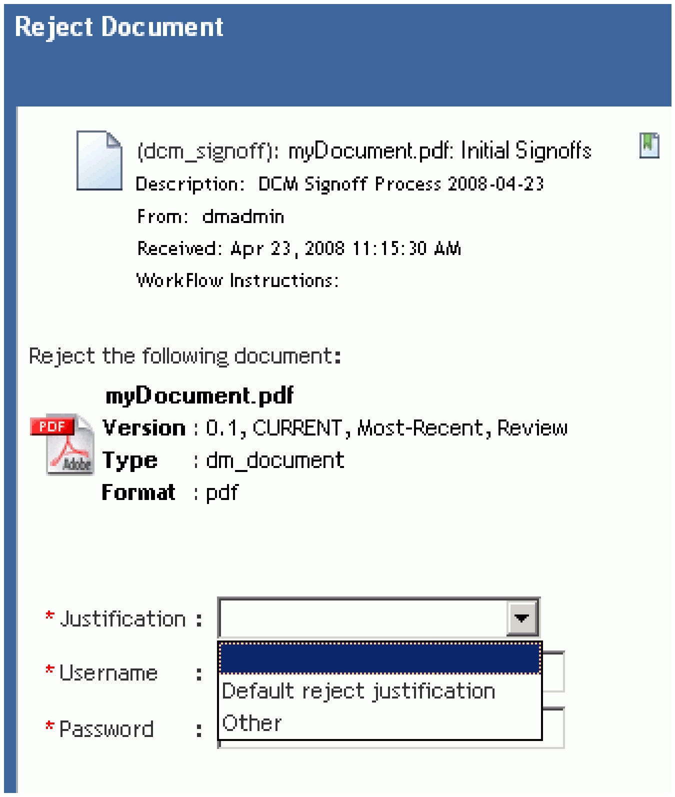


Figure 13. Screen displayed when a controlled document is rejected



Cancel Reject is a hidden button option displayed only if a signatory rejects the task or controlled document that is delivered without reject flow support. The **Cancel Reject** button is NOT displayed at all if the value for the **Task Subject** is set to ***dcm_signoff_reject***, to support the reject flow.

This is the value that must be configured to support and enable the reject flow in case a controlled document set up for sign off is rejected by a required signatory.

Cancel Reject must be performed by the required signatory who rejects the task if it was delivered without reject flow support. The sign off process is stopped when a required signatory rejects a task delivered without support for reject flow. This extra step is needed to resume the process so that it can finish without further actions from the other required signatories who received the same task. This extra step does not need to be performed when sign off tasks are delivered with reject flow support defined, the process will automatically continue and finish when a required signatory rejects the task.

Chapter 3

Controlled Documents

A document is controlled if it is created using the File>New>Controlled Document, or converted to a controlled document, or imported as a controlled document using File>Import Controlled Document. When a document becomes a controlled document DCM immediately assigns a lifecycle to it based on its document class configuration. A document class type defines the characteristics of a controlled document type, such as name, object type, format and lifecycle. The lifecycle of a controlled document may consist of these states:

- In Progress
- Review
- In Approval
- Approved
- Effective
- Retired
- Obsolete

This lifecycle is only an example and actual lifecycles may be much simpler or more complicated than the one illustrated.

Controlled documents are promoted through the lifecycle automatically upon sign off or manually by the document owner or document class coordinator.

This section describes the following:

- Working with the restricted properties of a controlled document, page 54
- Creating controlled documents in a repository, page 55
- Importing a controlled document, page 57
- Converting a document to a controlled document, page 60
- Checking out and editing a controlled document, page 60
- Checking in a controlled document, page 61
- Demoting a controlled document, page 61
- Attaching a related document to a controlled document or removing an attachment, page 62
- Updating the last review date of a controlled document, page 63

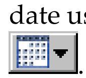
• Making a controlled document temporarily effective, page 65

Working with the restricted properties of a controlled document

The **Restricted Info** tab provides information about some of the metadata defined for the controlled document through its associated document class.

When a document reaches the dcm_approved state or the dcm_effective state, some of the properties (attributes) on the restricted info tab become editable as described in the following table.

Table 2. Restricted Info attributes

Attribute	Value
Status	View-only field. The value of this field reflects whatever values you entered using the DAB lifecycle editor. Typically, this field will contain the text of a PSS watermark for controlled viewing and printing purposes.
Effective Date	The Effective Date is the date and time that this document should become Effective automatically (done by a DCM job). DCM updates the effective date when a document becomes Effective (except when it is changed from Suspended to Effective). To update this field, select a date using the associated **Calendar** button . Optionally, choose a time value (hour and minute) from the pull-down menus. You can only edit this field if the document is in the approved state.

Attribute	Value
Last Review Date	To update this field to the current date and time, click **Set to Now**. You can also choose a date using the associated **Calendar** button. Optionally, choose a time value (hour and minute) from the pull-down menus.
Expiration Date	The expiration date is the date and time that this document should become Retired automatically (by a DCM job). DCM updates the expiration date when the document becomes Retired or Obsolete. To update this field, select a date using the associated **Calendar** button . Optionally, choose a time value (hour and minute) from the pull-down menus. You can only edit this field if the document is in the Effective state.
Document Class	Lists the document class that controls this document. View-only field.
Lifecycle	Displays the name of the lifecycle associated with this document. View-only field.
State Type	View-only field. The current lifecycle state type of the document. Value is translated.

Creating controlled documents in a repository

This section describes how to create a new controlled document in a repository.

A DCM Controlled Document could fall into one or more types categorized by a document class. A document class is associated with one lifecycle.

There are three ways to create a controlled document in a repository using DCM:

- Create one from scratch, as described in Creating a new controlled document, page 56.
- Import one from your local file system, as described in Importing a controlled document, page 57
- Convert a document to a controlled document, as described in Converting a document to a controlled document, page 60

  To convert a document to a DCM controlled document of a document class, the following conditions must be met.

  1. You must be a contributor of the document class.

     This is defined using the **Administrator-DCM-Document Class** node.

  2. You must have **Relate** permission to the lifecycle that is associated to the document class.

  3. You must have **Write** permission to the document.

To create a controlled document you must be defined as an author/contributor for this controlled document type (document class) by your administrator.

Note: Do not create a controlled document by applying a controlled document lifecycle to an existing uncontrolled document. You must use one of the three methods listed above to ensure successful creation of the controlled document.

Creating a new controlled document

A controlled document when created is associated to a document class and a particular lifecycle defined for the document class selected.

Note: The name given to a document or a controlled document when it is created is renamed according to the auto-naming scheme, if one was selected for the document class, only when it is checked into the repository. The auto-naming scheme renames the original name of the document or controlled document only upon checkin, not when it is created or imported into DCM. The original name is kept when imported or created until checked in.

Follow this procedure if you want to create a new controlled document, according to the desired document class and format, in a DCM managed repository. Follow the procedure for Importing a controlled document, page 57 if you have an existing document you want to add to a DCM managed repository as a controlled document.

To create a new controlled document:

1. Navigate to the location in your repository where you want to create the new controlled document, the **My Home Cabinet** for example.
2. Select **File > New > Controlled Document** and enter the values on each of the tabs for **Create**, **Info** , and **Permissions**.

   The **Finish** button is available when values are provided for the mandatory attributes on the **Create** tab. Default settings/values set against the optional attributes shall be enforced if their values are not changed. Make sure to change the values on the **Info** tab and the **Permissions** tab for example, if the default values displayed are not acceptable.

   The value you specify for the **Document Class** on the **Create** tab determines which lifecycle to use. You can determine which lifecycle is used for the selected document class by looking for it under the **Document Classes** node.

   The value for the **Format** is automatically populated according to the value selected for the **Template**.
3. Click **Finish** to complete the operation.

Importing a controlled document

Follow this procedure if you want to import an existing document as a controlled document into a DCM managed repository. A document selected for import is associated to a particular lifecycle, the DefaultLifecycle for example. The document you select that is to be imported as a controlled document, **File > Import Controlled Document** for example, can not be imported without it being associated to a document class. The import process does not require you to associate a document class to the document if you simply import it, **File > Import** for example. Documents imported as regular documents can later be converted to controlled documents when necessary, according to procedures for Converting a document to a controlled document, page 60.

Note: The name given to a document or a controlled document when it is imported is renamed according to the auto-naming scheme, if one was selected for the document class, only when it is checked into the repository. The auto-naming scheme renames the original name of the document or controlled document only upon checkin, not when it is created or imported into DCM. The original name is kept when imported or created until checked in.

To import a controlled document into the repository:

1. Navigate to the location in the repository where you want to import one or more documents, **My Home Cabinet** for example.

2. Select **File > Import Controlled Document** and click the **Add Files** or the **Add Folders** button on the Import screen to select the document or folder containing the document(s) for import.

Figure 14. Import screen for importing documents as controlled documents

Note: You can not **Finish** the import process unless you take the **Next** step to assign a document class to the document and classify it as a controlled document. The **Finish** button would be available if you had selected **File > Import** to import the document without making it a controlled document.

3. Click **Next** to assign a document class to the document and make it a controlled document.

   You will need to click **Next** to specify values other than the default values for each document if you have more than one document listed for import. Click **Finish** to accept the default values or after you change any of the default values. Click **Continue** on the confirmation screen, if it is displayed, to apply the default values or new values to the remaining documents if more than one document is selected/added for import. The following message would be displayed in the confirmation screen: **Proceeding will apply your changes to all remaining files. If you wish to apply individual changes to different files press Cancel and walk through the files using the 'Next' and 'Previous' buttons.**

   Although the value for the **Format** is populated according to the **Document Class** selected, you can change it if necessary.

   Although the document **Name** for each document listed can be changed if necessary, each name must be unique.

   You can also determine the lifecycle that will be used if you click **Select**.

Figure 15. Screen displayed when importing a single document

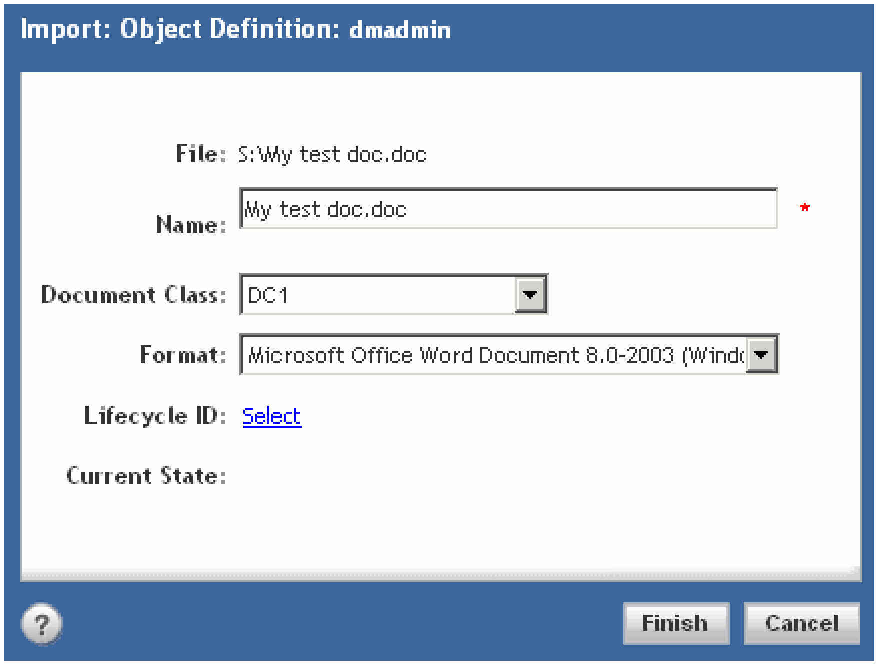
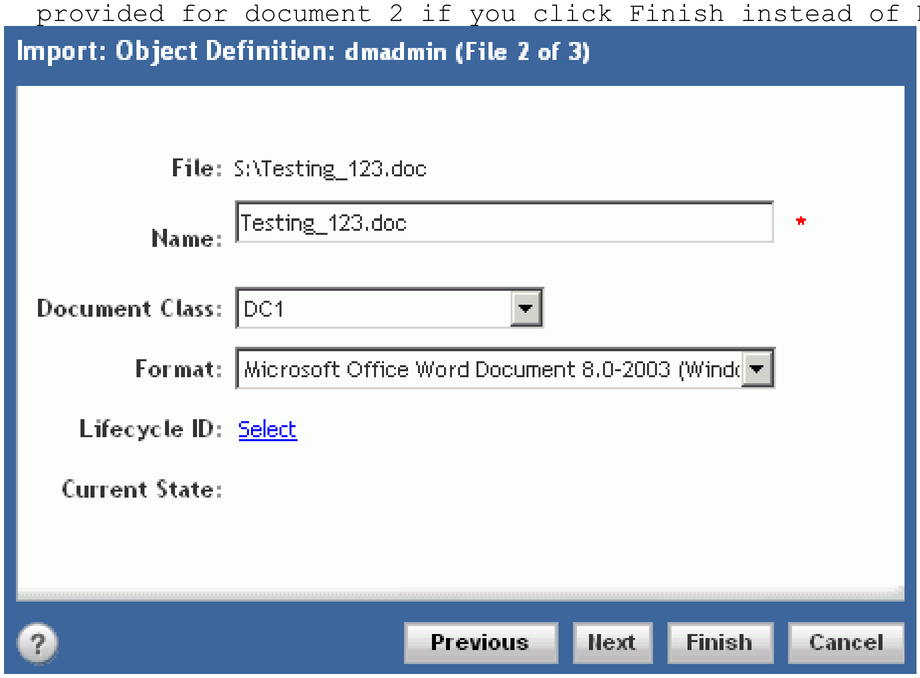


Figure 16. Screen displayed when importing multiple documents

Document 3 of 3 in this example would get the same values provided for document 2 if you click Finish instead of Next



Converting a document to a controlled document

Documents in a DCM managed repository can be converted to controlled documents when necessary using this procedure. Although it is possible to convert a document, that is a simple document, into a controlled document, a virtual document however can not be converted to a controlled document unless it is converted back to a simple document, its original format. Checked out documents also can not be converted. Documents need to be checked in before they can be converted to controlled documents.

To convert a document to a controlled document.

1. Navigate to the document you want to convert to a controlled document.
2. Right-click the desired document listed in the content pane and select **Compliance > Convert to Controlled Document**.

   A document once converted to a controlled document may not be in the original folder, as you might expect. It may have been moved to a predefined location if the lifecycle had a predefined value for the **Move to Location** attribute.
3. Enter the preferred values on each of the tabs for **Create**, **Info** , and **Permissions**. The procedure for converting to a controlled document is similar to the procedure for creating a controlled document.

   Only the **Name** and **Document Class** are mandatory on the **Create** tab. All other attributes are optional and their values should be looked at and changed from the default settings wherever necessary. The values displayed for the mandatory attributes can or should also be changed if necessary.
4. Click **Next** to apply either the default values or the new values on the tab displayed and move to the next tab. Click **Finish** whenever you are ready to apply default values or new values on all tabs.

Checking out and editing a controlled document

You check out, edit, version and check in a controlled document the same way you check out, edit, version and check in any Documentum file. The only restriction on controlled documents is as follows:

- you cannot check in multiple controlled documents at a single time
- you cannot check in using the **Make this the current version** option

- versioning a controlled document depends on the document type associated with the controlled document

  To version a controlled document, check out the controlled document, then check it in.

When you check out a controlled document that is in the active sign off process, the sign off states are set to **Revising** rather than **Canceled**. If you cancel the checkout, the **Revising** state reverts to its previous state.

Checking in a controlled document

Versioning options available at checkin are dictated by those specified for the document class. **Check in as same version** is disabled for documents in the approved lifecycle state or subsequent states, regardless of the document class setting. For effective documents, the option is automatically disabled. When you check in a new version of a controlled document, the sign off states on the previous version of the document revert to its original states.

When a document is checked in, you must manually initiate the sign off process. Refer to the section Initiating the sign off process for a controlled document, page 39.

Demoting a controlled document

Note: Ensure Documentum Application Builder (DAB) has lifecycles configured for demote.

The demote function is always available for controlled documents however under some circumstances the operation itself may fail. Demoting returns an item to its previous lifecycle state. If the controlled document is in aggregate signoff relationships, to demote the controlled document, you must remove the controlled document from the relationship. For the demote functionality to work properly, you must enable demotion on the lifecycle state as well as on the lifecycle extension GUI. The demote function is restricted to document class coordinators for approved documents. This function is always disabled for **Effective, Retired**, and **Obsolete** documents.

Demoting causes the sign off objects for the original state to be set to **Standby**. Sign offs on the previous state are set to **Standby**. Going into the previous state does not reevaluate the business or lifecycle rules. To promote a document back to its original state, signatories are added manually in state before demoting is specified. Signatories may be added (but not removed) based on the lifecycle mandatory signatories and business rules.

A signatory may sign off a document, or a signatory may sign off a document on behalf of a group or multiple groups. Although the same signatory may appear twice in the audit trails, only one signature appears on the sign off page. If you have already approved a document that is in a workflow and you abort the workflow, then start the workflow again.

DCM prevents duplicate esignatures that have an identical username, justification, or event. This means esignauture will not be applied to the signature page if a signature that meets all of the following conditions has been applied:

- same user for the same group
- same event, dcm_signoff or dcm_reject for example
- same justification code against the same lifecycle state of the controlled document

In any case, each sign off or reject is recorded in the audit trail.

To demote documents that are not in aggregate sign off relationships:

1. Navigate to the document in the repository, **Cabinets > Controlled Documents** for example.
2. Select the document listed in the content pane that is to be demoted and click **Tools > Lifecycle > Demote**.

   An following error may be displayed for some document classes if the user is not a coordinator: **Cannot demote the selected document(s), user is not a coordinator for the document class.**

   Note: You cannot demote documents that are in aggregate sign off relationships. Refer to the procedure for removing attachments.

Attaching a related document to a controlled document or removing an attachment

When you add or remove attachments, the number of signatories for the document you are attaching might change, depending on the relationship used to attach the files. If you add attachments, the number of signatories can increase, and if you remove attachments, the number of signatories can decrease.

Depending on how your system is configured you can attach a file to a controlled document, change request or change notice.

To attach a file to a controlled document or to remove a file from a controlled document:

1. Navigate to the location of the controlled document that needs an attachment, **Cabinets > Controlled Documents > In Progress** for example.

2. Select the controlled document listed in the content pane for which you want to provide an attachment and click **View > Properties > Attachments**.
3. Click **Add** on the **Attachments** tab to provide an attachment from the resulting locator screen.

   Depending on your configuration you can select an effective controlled document to attach. However, you may also be able to attach any file for example, supporting non-controlled documents.

   Select a relationship by choosing from the **Relationship** drop-down list.

   Only relation types available for your document are listed. When you select a relation type, the list is populated with the documents available for this relationship.

   You add attachments by clicking **Add**, selecting them from a **Select from list** box, and by then clicking **Add**. You can remove an attachment by selecting it and clicking **Remove**. When you are finished adding attachments, click **OK**. You are returned to the **Attachments** tab where the new attached documents are now listed.
4. Click **OK** to accept selected attachments on the locator screen.

   If you would like to assign additional signatories for your document refer to Assigning signatories, page 41.
5. Click **OK** on the **Properties** screen for changes to take effect.

After you have added an attachment you may want to check out the file and edit the content of the file.

Note: 1. You cannot attach the same document to more than one parent document in Group Promote/Sign off relationships.

2. When an aggregate sign off is selected for an attachment and you remove the attachment, the aggregate signatories are also removed.

Updating the last review date of a controlled document

After you review a controlled document you must update the **Last Review Date** on the **Properties** page of the controlled document.

The Last Review Date when updated resets the review cycle for a controlled document that is in the Effective state. DCM includes the ability to define review periods for controlled documents that need to be reviewed periodically for their relevancy and their accuracy for example. The DCM administrator sets up a review cycle and a notification period. Controlled documents that need to be reviewed periodically can be scheduled according to the review cycle. The review cycle or the review frequency sets the amount of time that can transpire before the controlled document needs to be reviewed. The review cycle for example can be set to occur at the end of every three months, six months, each year, every two years, or whatever interval is satisfactory. The notification period identifies a start date for notifications prior to the review. If the review cycle is set to six months and the notification period is set to two days for example, then notifications are sent starting 2 days before the end of the six months is reached. If the reviewer does not update the Last Review Date before the date entered for the Expiration Date, notifications will resume and continue to be sent until the reviewer reviews and updates the Last Review Date. The review cycle is recalculated according to the Last Review Date. This implies that a review cycle that calls for a review after each six months, at the end of April and October to begin with for example, could get moved to May and November if the reviewer updates the Last Review Date a month later than expected. This could be compared to your dental appointments whereby you may be scheduled for teeth cleaning every 6 months and start to get notifications 2 days prior to the actual appointment. Notifications are resumed if you fail to attend the appointment. Depending on when you do finally make it to the new appointment, a new six month schedule is calculated.

When a Document Review Notification job runs, the system reads the last review date to determine when to send a review notification for the document. When you update the last review date the document notification schedule is adjusted accordingly.

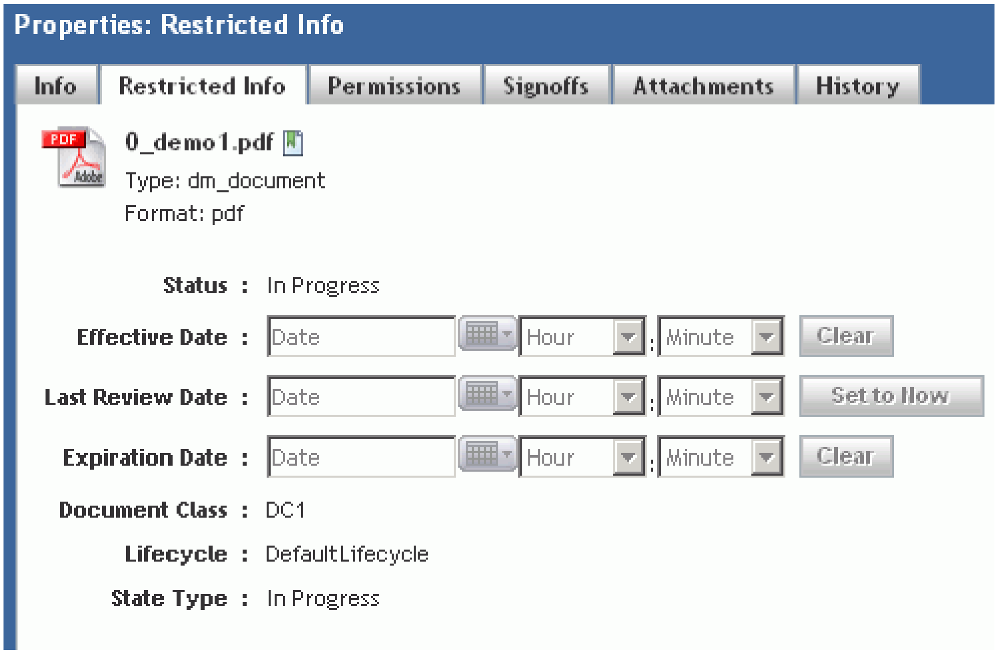
You can set the last review date to any date between the effective date and the time you set it, in five-minute increments. If you click the **Set to Now** date, the system behaves as it did in the former release.

Note: You cannot update the last review date unless you are a document class coordinator and the document is in the Effective state.

To reset (update) the last review date:

1. Make sure the controlled document is selected in the content pane when you have finished reviewing it and closing it.
2. Click **View > Properties > Info** and select the **Restricted Info** tab.

Figure 17. Restricted info



3. Click on the **Restricted Info** tab.
4. Edit the **Last Review Date** with the current date or date on which you completed the review. If you prefer, you can click the **Set to Now** button.
5. Click **OK**.

Making a controlled document temporarily effective

Use this procedure to automatically suspend the CURRENT version of an effective document that is in the Effective state of a DCM lifecycle. All DCM lifecycles available out-of-the-box have the Effective state already defined with an exception state used to hold/contain a suspended document until it is resumed and reinstated. DCM allows you to make the latest version of a controlled document temporarily effective until the suspended document is resumed, reinstated to Effective. The latest version of a controlled document must be in the lifecycle state prior to the effective state in its lifecycle before it can be made temporarily effective. If 1.0 is the effective document for example, and versions 1.1 and 1.2 have been created (checked in), only version 1.2 can be made temporarily effective if it is in an approved state, the latest version selected must be signed off. Version 1.0 is automatically suspended when 1.2 is made temporarily effective. If 1.2 is suddenly made CURRENT, it can not be suspended until version 1.3 is available (checked in) and approved.

A controlled document cannot be made temporarily effective under the following conditions:

- When it is a controlled document that is not the most recent version that is, any version prior to the latest version checked in. For example, if you have version 1.1 and version 1.2 of a document, you cannot make version 1.1 temporarily effective.
- If the controlled document is not in the state immediately before it was made effective.
- If the controlled document is a child in a group promotion relationship and the parent rule is to promote the child for the current state.
- Unless the person changing the state of the controlled document to temporarily effective is the coordinator (as defined in the document class).
- When there is no effective version.
- If the effective version of the controlled document cannot be suspended.

Note: When you make a document temporarily effective, you can specify the time in hours and minutes, in five-minute increments.

To make a document temporarily effective:

1. Navigate to the signed off state of the lifecycle in the repository that contains the latest version of the effective document that needs to be suspended. The state to navigate to when a DCM lifecycle is used is the Approved state, configured ahead of the Effective state.
2. Select the latest version of the controlled document displayed in the content pane and click **Compliance > Make Temporarily Effective**.
3. In the **Expiration Date** field set the date you want the document to expire. You can also specify the time in hours and minutes.

   The document is made effective immediately until the expiration date is reached.

   If a CURRENT version of this document already exists then the CURRENT version is Suspended until the temporarily effective document expires.
4. Click **OK**.

   The effective date is reset to today's date.

Chapter 4

Change Requests and Change Notices

A change request is a special Documentum Compliance Manager document you use to request changes to a controlled document. A change notice is a document used to review and signoff changes to controlled documents.

DCM comes configured with default change notice and change request document classes; however, you can also create your own. This section provides instructions for creating and configuring change notices and change requests in your DCM system.

This section describes the following:

- Change requests overview, page 67
- Using change requests, page 68
- Change notices overview, page 69
- Using change notices, page 70
- Document relationships and dependencies, page 71
- Supporting documents, page 72
- Attaching controlled documents to change notices and change requests, page 75

Change requests overview

A change request is a special Documentum Compliance Manager document type you use to request changes to a controlled document. A standard change request does not contain an actual document, but contains all the necessary information in the document attributes, such as document title, description of the requested change, and reason for the change.

Using change requests

The section includes the following:

- Creating a change request, page 68
- Checking out and editing change requests, page 69

Creating a change request

Change requests have all the properties that standard documents have and some additional properties designed especially for Documentum Compliance Manager processing.

Any DCM user, belonging to the author role for the document class associated with the change request, can create and submit a change request for any document.

To create a change request:

1. Navigate to **My Home Cabinet** or one of the cabinets under **Cabinets**, preferably the folder created for Change Requests.
2. Click **File > New > Change Request** and enter values as necessary on both the **Create** tab and the **Info** tab.

   Only the **Name** and **Document Class** are mandatory on the Create tab. Although the value for the **Template** is automatically populated according to the document class selected, you can go ahead and change it for a different template when necessary.

   A document class is a controlled document type associated with a set of default behavior and characteristics of that type.

   Selecting a document class automatically attaches a lifecycle. The lifecycle specifies the states through which the document advances during its life. The lifecycle also controls the document permissions.
3. Click **Finish**.

   The change request is automatically submitted.

   The new change request is stored in the folder representing its current lifecycle state. When a change request is first submitted that state will be in-progress so the change request is stored in the **Cabinets > Change Requests > In-Progress** folder. When the change request is in the In-Progress state you can attach controlled documents to it. For additional information refer to About document relationships, page 101.

   The change request is manually or automatically moved through its states depending on how the document lifecycle you choose was designed by your administrator.

Refer to Chapter 10, Lifecycle Extensions for more information on using lifecycles, and refer to *Documentum Compliance Manger Administration Guide* for more information on working with DCM specific lifecycles.

Checking out and editing change requests

You check out, edit, version and check in a change request the same way you check out, edit, version and check in any Documentum file. The only restriction on change requests is from a versioning perspective. Versioning a change request depends on the document class and business process associated with the change request.

To version a change request, check out the change request, then check it in. If the change request has content, DCM allows you to edit or replace the content using the **Check In From File** option.

Change notices overview

Change notices are used to review and sign off changes to controlled documents and to notify the necessary people that a controlled document has changed. A change notice typically does not have any content but is used for change management purposes.

Any DCM user, belonging to the author role, can create and submit a change notice for a controlled document. You can promote a change notice from In Progress to In Approval. Once the change notice is In Approval you can then manually initiate the sign off process anytime.

A standard change notice is contentless. All of the information the change notice conveys, such as which documents it is related to, is defined in its properties. However, change notices can have content. When using change notices with content, there is a document to open and read. For example, if you have a change notice form with different or more information than the properties allow, you can create a specialized change notice with the form attached as content.

- Users can specify that the signatories for a change notice come from its children (aggregate signatories).
- The sign off process for child documents is taken over by its parents.
- Child documents do not show in the **My Signoffs** list or in the Inbox.
- Adding signatories cannot be done on the parent.
- Removing a signatory from the parent will also remove the signatory from all the child documents.
- Signing off can be done on the child documents.

- All signatories of change notices sign off the child documents contained inside.
- Aggregate signatories can be configured to aggregate signatories only for particular states, which are specified by editing the rules for the **Group** signoff role.
- Users now have the ability to aggregate signatories from the attached documents in the **Change Notice**. In the **Signoffs** tab for the attached controlled document, the status is set to **Parent Signoff**.
- If **Parent Signoffs** is set, and you want to sign off a controlled document, you must sign off the **Change Notice** rather than the controlled document.

Note: When you attach multiple documents to change notices, and the administrator sets the system up in a specific way, the following scenario can occur. When you apply the change notice, all of the signatures appear on all of the documents, even though not all of the signatories were specified in all of the original documents.

Using change notices

The section includes the following:

- Creating a change notice, page 70
- Checking out and editing change notices, page 71

Creating a change notice

A change notice is used to review and signoff changes to controlled documents and to notify the necessary people that a controlled document has changed.

To create a change notice:

1. Navigate to **My Home Cabinet** or one of the cabinets under **Cabinets**, preferably the folder created for Change Notices.
2. Click **File > New > Change Notice** and enter values as necessary on both the **Create** tab and the **Info** tab.

   Only the **Name** and **Document Class** are mandatory on the Create tab. Although the value for the **Template** is automatically populated according to the document class selected, you can go ahead and change it for a different template when necessary.

   A document class is a controlled document type associated with a set of default behavior and characteristics of that type.

   Selecting a document class automatically attaches a lifecycle. The lifecycle specifies the states through which the document advances during its life. The lifecycle also controls the document permissions.

3. Click **Finish**.

   The change notice is automatically submitted.

   The new change notice is stored in the folder representing its state type. When a change notice is first submitted that state will be In-Progress so the change notice is stored in the **Cabinets > Change Notices > In-Progress** folder.

   The change notice is manually or automatically moved through its states depending on how the document lifecycle you choose was designed by your administrator.

   Refer to Chapter 10, Lifecycle Extensions for more information on using lifecycles, and refer to *Documentum Compliance Manger Administration Guide* for more information on working with DCM specific lifecycles.

Checking out and editing change notices

You check out, edit, version and check in a change notices the same way you check out, edit, version and check in any Documentum file. The only restriction on change requests is from a versioning perspective. Versioning a change notice depends on the document class and business process associated with the change notice.

To version a change notice, check out the change notice, then check it in. If the change notice has content, DCM allows you to edit or replace the content using the **Check In From File** option.

When you create a new version of a change notice, the old version and new version both exist in the repository.

Document relationships and dependencies

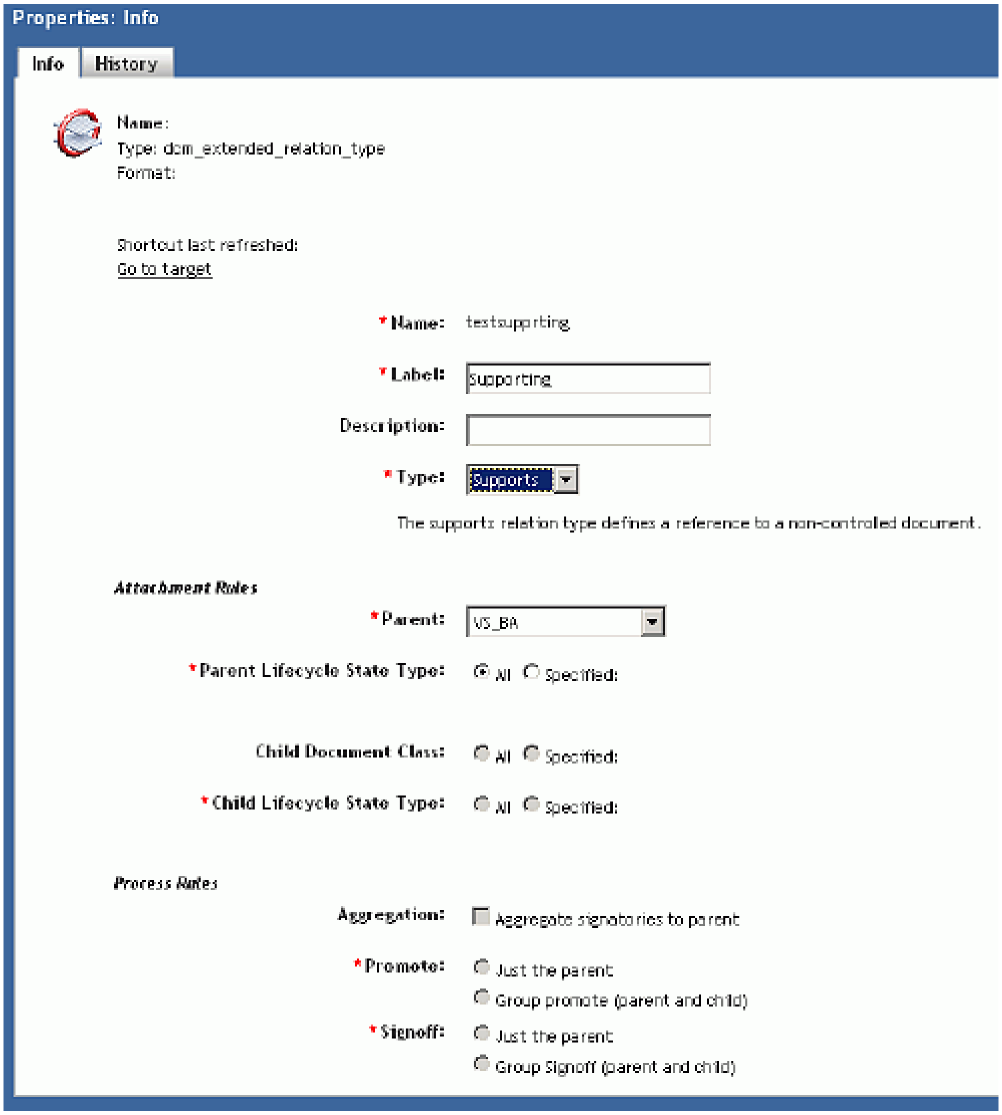
A document relationship defines dependencies between documents. Change Notices use specified relationships to define what documents it is routing for sign off. These relationships are linked to specific versions of documents. When a document is approved or promoted, DCM looks up the relationships defined for that document to decide whether the document will be approved or promoted separately or as part of a group. For example, if a change request is issued against an SOP, then the change request has a relationship with the SOP. Document relationships are defined by your administrator based on your company's internal processes.

For more information about relationships, refer to *Documentum Compliance Manager Administration Guide*.

Supporting documents

Use this procedure to associate (attach) a supporting document (uncontrolled document) to a controlled document, change notice, or change request. Otherwise, refer to Attaching controlled documents to change notices and change requests, page 75 if you want to attach a controlled document instead of a supporting document. You can limit attachments to specific document types depending on the relationship selected from those listed/defined under Relationship Types in the navigation pane. A relationship type must be defined for the parent document before it can be selected or processed for an attachment. There are no **Attachment Rules** or **Process Rules** to specify other than the **Parent** document if you select *Supports* for the attachment **Type**, as illustrated below.

Figure 18. Creating a supporting relationship to allow attachment of uncontrolled documents



Once a relationship type is created/defined for a document, VS_BA for example as illustrated above, you can then navigate to the document and follow the procedure in this section to add a supporting document as an attachment. Other relationships for the same document can be created that specify a different **Type** if necessary. Each of the four values for the **Type** are defined as follows:

- *Process*: this type defines processing that needs to be performed on a **controlled document**.
- *Against*: this type defines a reference to a **controlled document**. This reference always refers to the original version of a document when it was attached.

- *Reference*: this type defines a reference to a **controlled document**. This reference always refers to the current version.
- *Supports*: this type defines a reference to a **non-controlled document**.

Supporting documents are uncontrolled documents and are not processed or managed by DCM. However, you may attach any document to a controlled document that has a supporting document relation defined. For example, a report, study, or memo that recommends a different way to perform a procedure could be a supporting document for a change notice that affects an SOP.

Supporting documents are not designed to be routed for review or sign off. When the change notice to which they are related is routed to, the reviewers can see what documents support the change notice. Signatories can view a supporting document from the change notice.

After you create or import a supporting document, you can establish the relationship between the supporting document to the change notice it supports. Refer to *Documentum Compliance Manager Administration Guide* for information on creating relationships.

Members of the author or contributor role can perform this procedure.

To attach a supporting document to a controlled document, change notice, or change request:

1. Navigate to **Cabinets > Change Notices > In Progress** or to **Cabinets > Change Requests > In Progress**. You can also navigate to the **Approved** state to provide an attachment.
2. Right-click a change notice or change request listed in the content pane and select **Properties**.
3. Select the **Attachments** tab and click **Add**.

   The **Relationship** attribute in the resulting screen lists only those relationships that were created/defined for the change notice or change request selected for the attachment.
4. Select a **Relationship** from the list box that references supporting documents and then click **OK** or, use the text field if you want to select from documents that start with the letters you specify and then click **OK**.

   Options in the list box are listed according to the value specified for the **Label** of the relationships created. If necessary, navigate to the **Relationship Types** and look for the label that matches the one you want to select from the list box to determine which **Type** the selected relationship is. If no options are listed for the selected document, it means no relationships, of any type, were created for the selected document. You will need to create the appropriate relationship for the selected document and then return to this procedure to provide an attachment.

   If no supporting relationships are listed in the list box for the selected parent document, change notice or change request, follow procedures for Creating a

relationship type, page 104 to create a supporting relationship such that you set the value for the**Type** attribute to *Supports*. All relationships, regardless of their type, if more than one has been created for a particular document will appear in the list box.

5. Click **OK** on the resulting locator screen to accept the selected relationship.
6. Click **OK** to accept the entries on the DCM Extended Relations dialog screen.
7. Click **OK** to save your changes on the Properties page.

Attaching controlled documents to change notices and change requests

Follow this procedure to attach a controlled document to a change notice, change request, or controlled document (other than change notices or change requests if necessary). Otherwise, refer to the procedure inSupporting documents, page 72 if you need to attach an uncontrolled document. Details that define the four relationship types are also contained in that section. The procedure here is essentially the same as that used to attach supporting documents. The only difference however is in the value (option) selected for the **Relationship** attribute. You will want to select a relationship of a **Type** that is not supporting, *Against*, *Process*, or *Reference* for example. A relationship for a controlled document, to which you want to attach another controlled document, must be created before it can be selected from the **Relationship** list box.

To attach a controlled document to a change notice, change request, or controlled document:

1. Navigate to **Cabinets > Change Notices > In Progress** or to **Cabinets > Change Requests > In Progress**. You can also navigate to the **Approved** state to provide an attachment.
2. Right-click a change notice or change request listed in the content pane and select **Properties**.
3. Select the **Attachments** tab and click **Add**.

   The **Relationship** attribute in the resulting screen lists only those relationships that were created/defined for the change notice or change request selected for the attachment.
4. Select a **Relationship** from the list box that references controlled documents and then click **OK** or, use the text field if you want to select from controlled documents that start with the letters you specify and then click **OK**.

   Options in the list box are listed according to the value specified for the **Label** of the relationships created. If necessary, navigate to the **Relationship Types** and look for the label that matches the one you want to select from the list box to determine which

Type the selected relationship is. If no options are listed for the selected document, it means no relationships, of any type, were created for the selected document. You will need to create the appropriate relationship for the selected document and then return to this procedure to provide an attachment.

If no relationships are listed in the list box for the selected parent document, change notice or change request, follow procedures for Creating a relationship type, page 104 to create one or more relationships as needed. Make sure to select *Reference*, *Against*, or *Process* for the **Type** to create a relationship for the selected parent to a controlled child document. All relationships, regardless of their type, if more than one has been created for a particular document will appear in the list box.

5. Click **OK** on the resulting locator screen to accept the selected relationship.
6. Click **OK** to accept the entries on the DCM Extended Relations dialog screen.
7. Click **OK** to save your changes on the Properties page.

Chapter 5

Business Applications

This section describes the following:

- Creating a business application, page 77
- Viewing or modifying business applications, page 81
- Deleting business applications , page 81

Creating a business application

A business application must be defined and assigned to each document class created. The business application assigned to a document class determines what actions can or can not be taken against a particular document, identifies members in the coordinator and contributor roles that can access the document, and which templates and workflows that can be used to manage the document. The more items added to each of the Coordinators, Contributors, Template, and Workflow tabs, the greater the pick list in the list boxes when a controlled document is created against a particular document class. You can tell which document class a business application is associated to (that is which business application a document class uses) by clicking its name listed in the content pane.

Create your business application only after you have defined your requirements, and created the necessary users/groups/roles, objects, workflows, and lifecycles.

To create a business application:

1. Navigate to **Administration > DCM > Business Applications**.
2. Select **File > New > Business Application** and click **Finish** when you have completed the form for each tab. You can create a business application against the default settings by entering a unique name, as only the **Name** attribute is mandatory, and later modify it form its **Properties** screen, to suit your needs when you are ready to use it.

   Refer to the following table, when necessary, for a description of the attributes on the **Info** tab. All remaining tabs for **Coordinators**, **Contributors**, **Template**, and

Workflow require you to add an item, one or more if necessary, from a locator screen displayed when you click **Add**. Once an item has been added for a particular tab, a **Remove** button is revealed/displayed next to the **Add** button so you can deselect items inadvertently selected or no longer needed when you edit the business application from its **Properties**. Refer to Locator usage, page 24 for instructions if necessary.

The business application, once it has been created is displayed in the content pane according to the name you gave it. It can be edited from its **Properties** when you right-click it in the content pane and select **Properties**. The business application can also be deleted from the content pane similarly when you right-click it in the content pane and select **Delete**. A warning is displayed if the business application is in use when you try to delete it.

Table 3. Business Application: Info tab attributes

Attribute	Value
Name	The value typed for the Name on the Create tab.
Controlled Documents	DCM allows you to enforce unique naming of controlled documents at the repository level and whether to make it a major version when promoted to Effective. If repository-level enforcement of unique naming has been configured, then the **Enforce Unique Names within Docbase** option cannot be selected. **Enforce Major Version on Effective** is selected by default. A document with a version number of 1.3 for example is promoted to version 2.0 when it reaches the Effective lifecycle state. The version number would remain at 1.3 if deselected.
Create	To specify what repository version to assign the initial checkin of a new document created using this document class, choose one of the following options: • **Always at version 0.1** • **Always at version 1.0**

Attribute	Value
Check-in Rule	To restrict the repository versioning behavior for documents of this class, choose one of the following options: • **Do not Allow Minor Version Check In**: If selected, forces the user to check in documents based on this class as major versions only (1.0, 2.0, 3.0, etc.) • **Do not Allow Major Version Check In**: If selected, forces the user to check in documents based on this class as minor versions only (1.1, 1.2, 1.3, etc.) • **Do not Allow Same Version Check In**: If selected, disables the **Check In As Same Version** option in the checkin dialog, and forces the user to check in documents as incremented major or minor versions only.
Auto-Name	Specifies when an autonaming scheme is applied to documents of this class: • **Assign Auto-name when document is created**: If selected, the autonaming scheme is applied immediately upon document creation • **Assign Auto-name on transition to lifecycle state**: If selected, the autonaming scheme is applied only when the document reaches a certain lifecycle state (for example, Approved). • **Do Not Assign Auto-name**: If selected, disables the system autonaming scheme for documents of this document class.

Attribute	Value
In-Progress Versions	Specifies how to handle in-progress versions of the document once the document is versioned or promoted to the next lifecycle state: • **Delete previous non-effective version when a new version is created**: Each version of a controlled document checked in is deleted if it is not the effective version. PDF renditions with annotations are not deleted. • **Delete previous non-effective versions upon promotion to effective**: All versions of a controlled document checked in are deleted only when one of them is promoted to Effective. • **Delete previous non-effective versions and annotations upon promotion to effective**: All versions of a controlled document checked in along with the PDF renditions that have annotations are deleted only when one of the existing versions is promoted to Effective. • **Don't do anything**: All versions and renditions are kept, nothing gets deleted.
Review Cycle	DCM includes the ability to define review periods for documents, and to automatically start review workflows. Type a number in this field to indicate the number of days that you want a review cycle to last for documents associated with this business application.

Attribute	Value
Days Prior to Review	The Document Review Notification job uses this value to determine the number of days required to start the notification.
Days After Review Date	The Document Review Notification job uses this setting to determine the number of days required to send a notification if the business owner has not acted on the notification.

Viewing or modifying business applications

Use this procedure to view or modify an existing business application. The properties screen used to view or modify business applications, unlike the screen used to create a business application, includes a History tab that displays audit information.

To view or modify an existing business application:

1. Navigate to **Administration > DCM > Business Applications**.
2. Right-click a business application listed in the content pane and select **Properties**.
3. Modify entries across all tabs as needed, except the History tab which is read-only, and click **OK** to save the changes. Refer to Creating a business application, page 77 if necessary, for a description of the attributes. Click **OK** or **Cancel** if you are only viewing.

Deleting business applications

The owner of a business application can delete it from the system if it is not being used. A warning is displayed when an attempt is made to delete it while it is in use.

To remove a business application:

1. Navigate to **Administration > DCM > Business Applications**.
2. Right-click a business application listed in the content pane and select **Properties**.
3. Enter your user name and password and click **OK** to continue.

   The following confirmation message is displayed:

   To delete the object, click OK. If you do not want to delete the object, click Cancel.

4. Click **OK** to confirm and complete the deletion.

Chapter 6

Document Classes

This section describes the following:

- Document classes, page 83
- Creating a document class, page 84
- Viewing or modifying document class properties, page 88
- Deleting document classes , page 89
- About document relationships, page 101
- Creating a relationship type, page 104
- Viewing or modifying relationship types, page 109
- Deleting relationship types, page 109

Document classes

Document classes provide the flexibility to create a controlled document type required for a particular business process, and to associate a set of default behavior and characteristics with that type. You can base a document class on any Documentum object type. Using the custom properties associated with a document class, you can define specific kinds of behavior, such as the document class's versioning behavior, associated auto-naming scheme, and an associated lifecycle.

For example, you can set up document classes for any kind of controlled documents commonly used by your organization, such as change notices, change requests, Standard Operating Procedures (SOPs), or plant drawings.

You can associate relationship types (such as Closes or Supports) to determine how a document class treats attached or associated documents. For example, you can define the following things:

- How do documents belonging to this document class handle promotion?
- How do documents belonging to this document class handle sign off?

You can create multiple document classes on a single object type.

Each business process can have one or more document classes. Each document class can point to any Documentum object type and its behavior is defined by several custom properties such as its default lifecycle and relationship types.

If you choose not to use the predefined document classes provided with DCM, you must create the controlled document types, change request, and change notice document classes you want DCM to manage.

To use these predefined controlled document types, choose one of the following options from the Filter pull-down menu when creating a document class:

- **Controlled Document types**
- **Change Request types**
- **Change Notice types**

Creating a document class

Document classes are administered by the document class owner, who is responsible for creating and maintaining one or more document classes. To create a document class, you must have the role of business application owner or document class owner.

To create a document class:

1. Navigate to **Administration > DCM > Document Classes**.
2. Select **File > New > Document Class** and click **Finish** when you have completed the form for each tab. You can create a document class against the default settings by entering a unique name on the **Create** tab and clicking **Next** until the **Finish** button becomes available.

   The default settings, attribute values, of a document class match the attribute values of the selected business application by inheritance, unless you explicitly deselect the **Inherit** option for the attribute you want to modify.

   All tabs for **Coordinators**, **Contributors**, **Template**, and **Workflow** require you to add an item, one or more if necessary, from a locator screen displayed when you click **Add**. Once an item has been added for a particular tab, a **Remove** button is revealed/displayed next to the **Add** button so you can deselect items inadvertently selected or no longer needed when you edit the document class from its **Properties**. Refer to Locator usage, page 24 for instructions if necessary.

   The document class , once it has been created is displayed in the content pane according to the name you gave it. It can be edited from its **Properties** when you right-click it in the content pane and select **Properties**. The document class can also be deleted from the content pane similarly when you right-click it in the content pane and select **Delete**. A warning is displayed if the document class is in use when you try to delete it.

Refer to the following table, when necessary, for a description of the attributes.

Table 4. Document Class attributes

Attribute	Value
Name	Enter a unique name for your document class.
Business Application	From the pull-down menu, choose the name of the business application you want to associate with this document class. After creating a document class, you cannot change its associated business class.
Type	From the pull-down menu, choose the class of the object type you want to associate with this new document class. The options you see for **Docbase Type** on the following screen will depend on the choice you make here. There are three object types, controlled document types, change notice types and change request types.
Name	The value entered for the Name on the create tab is displayed on the Info tab as read-only.
Business Application	This field displays the associated business application you selected on the Create tab. You can modify this value.
Filter	This field displays the Controlled Document Type you selected from the Create tab.
DC Owner	By default, the name of the user creating the document class appears in this field. If you are creating this page as the business application owner, type the name of a document class owner.

Attribute	Value
Object Type	From the pull-down menu, choose the name of an object type to associate with this document class. The options that appear on this list vary, depending on what value you chose for the **Filter** field on the previous page.
Lifecycle	From the pull-down menu, choose the name of a predefined lifecycle to associate with this document class.
Alias Set	From the pull-down menu, choose the name of a predefined alias.
The following attributes on the **Info** tab match the attributes of the selected business application on its **Create** tab. Values inherited from the business application will be the default values for the document class unless you make the changes. Changes can be made if you deselect the **Inherit** option for the attribute you want to modify.	
Create	To specify what repository version to assign the initial checkin of a new document created using this document class, choose one of the following options: • **Always at version 0.1** • **Always at version 1.0**
Check-in Rule	To restrict the repository versioning behavior for documents of this class, choose one of the following options: • **Do not Allow Minor Version Check In**: If selected, forces the user to check in documents based on this class as major versions only (1.0, 2.0, 3.0, etc.) • **Do not Allow Major Version Check In**: If selected, forces the user to check in documents based on this class as minor versions only (1.1, 1.2, 1.3, etc.) • **Do not Allow Same Version Check In**: If selected, disables the **Check In As Same Version** option in the checkin dialog, and forces the user to

Attribute	Value
	check in documents as incremented major or minor versions only.
Auto-Name	Specifies when an autonaming scheme is applied to documents of this class: • **Assign Auto-name when document is created**: If selected, the autonaming scheme is applied immediately upon document creation • **Assign Auto-name on transition to lifecycle state**: If selected, the autonaming scheme is applied only when the document reaches a certain lifecycle state (for example, Approved). • **Do Not Assign Auto-name**: If selected, disables the system autonaming scheme for documents of this document class. **Note:** The auto-naming scheme selected for a document class should not be one that is already used by another document class. Refer to the procedure used to create an auto-naming scheme and the best practices described for using them.
In-Progress Versions	Specifies how to handle in-progress versions of the document once the document is versioned or promoted to the next lifecycle state: • **Delete previous non-effective version when a new version is created**: Each version of a controlled document checked in is deleted if it is not the effective version. PDF renditions with annotations are not deleted. • **Delete previous non-effective versions upon promotion to effective**: All versions of a controlled document checked in are deleted

Attribute	Value
	only when one of them is promoted to Effective. • **Delete previous non-effective versions and annotations upon promotion to effective**: All versions of a controlled document checked in along with the PDF renditions that have annotations are deleted only when one of the existing versions is promoted to Effective. • **Don't do anything**: All versions and renditions are kept, nothing gets deleted.
Review Cycle	DCM includes the ability to define review periods for documents, and to automatically start review workflows. Type a number in this field to indicate the number of days that you want a review cycle to last for documents associated with this business application.
Days Prior to Review	The Document Review Notification job uses this value to determine the number of days required to start the notification.
Days After Review Date	The Document Review Notification job uses this setting to determine the number of days required to send a notification if the business owner has not acted on the notification.

Viewing or modifying document class properties

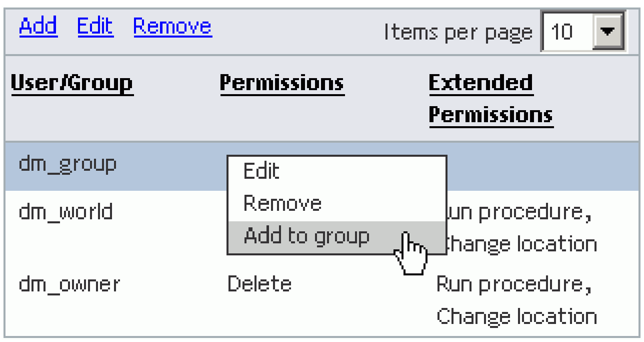
Use this procedure to view or modify the attribute values for an existing document class. The properties screen used to view or modify document classes, unlike the screen used to create a document class, includes a History tab that displays audit information.

To view or modify the properties defined for a document class:

1. Navigate to **Administration > DCM > Document Classes**.
2. Right-click a document class listed in the content pane and select **Properties**.
3. Modify entries across all tabs as needed, except the History tab which is read-only, and click **OK** to save the changes. Refer to Creating a document class, page 84 if necessary, for a description of the attributes. Click **OK** or **Cancel** if you are only viewing.

   Note: Although you can Add, Edit, and Remove users and groups you can also increase membership for existing users or groups. **Add to group** is an available option you can use to increase membership when you modify permissions for an existing user or group. Right-click the User/Group you want to increase membership for and select **Add to group**.

Figure 19. Increasing membership for a user/group



Deleting document classes

The owner of a document class can delete it from the system if the document class is not currently being referenced by a controlled document. Before deleting a document class, you must delete all of the controlled documents associated with the class. A warning is displayed when an attempt is made to delete it while it is in use.

To remove a document class:

1. Navigate to **Administration > DCM > Document Classes**.
2. Right-click a document class listed in the content pane and select **Delete**.
3. Enter your user name and password and click **OK** to continue.

   The following confirmation message is displayed:

   To delete the object, click OK. If you do not want to delete the object, click Cancel.

4. Click **OK** to confirm and complete the deletion.

Chapter 7

Auto-naming Schemes

This section describes the following:

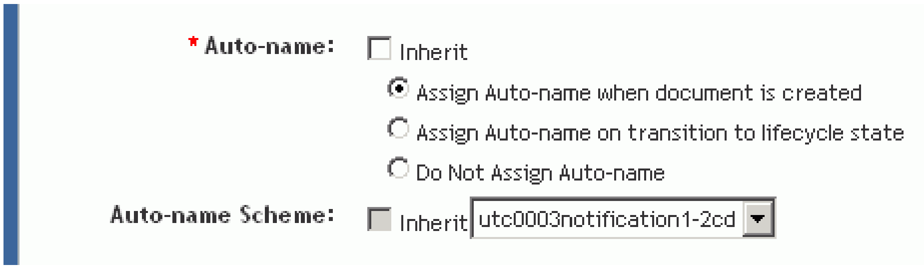
- Auto-naming schemes, page 91
- Creating auto-naming schemes, page 92
- Modifying auto-naming schemes, page 94
- Deleting auto-naming schemes , page 95
- Best practices for using auto-naming schemes, page 95

Auto-naming schemes

This feature can be used to automatically rename documents against a predefined scheme when the documents are checked into a DCM managed repository. A unique numbering scheme can be associated with any document class or business application. The applicable auto-naming scheme used depends on the auto-naming scheme selected for the document class. Although the value for the Auto-name attribute of a document class is configured by default to inherit an auto-naming scheme, it can be deselected for an alternate choice.

The original name of a document created or imported into MY Home Cabinet for example, will get renamed according to the pattern specified for the selected or inherited auto-naming scheme, only when the document is checked into the repository. The document is removed from My Home Cabinet and moved to the In-Progress folder by the lifecycle selected for the document class when the document is checked in. You can also specify that an auto-naming scheme be applied to a document only if that document reaches a certain lifecycle state, such as Approved.

Figure 20. Auto-name settings on a document class



The components used to define a naming pattern are the prefix, suffix, and numeric components.

Note: Avoid sharing an auto-naming scheme between document classes. Each document class created that defines an auto-naming scheme should be unique.

Document class owners and business application owners can create, modify, or delete auto-naming schemes.

Creating auto-naming schemes

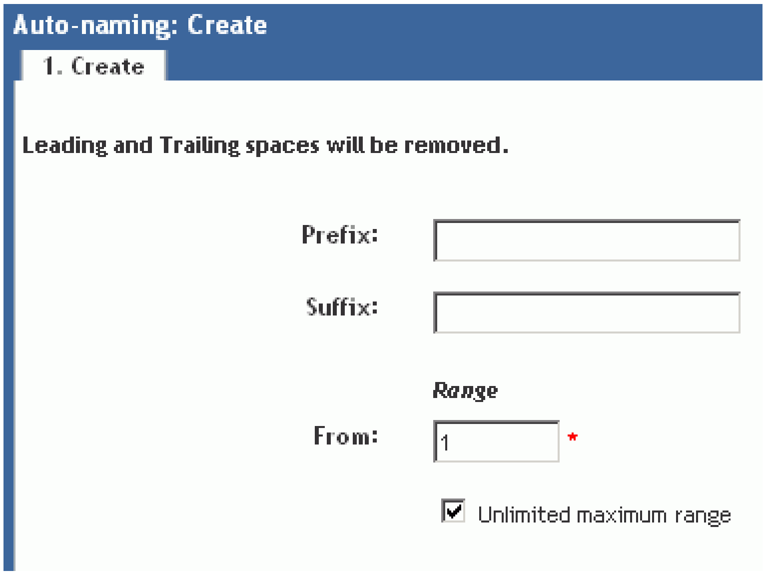
Use this procedure to create an auto-naming scheme for documents you want to have renamed according to a particular naming pattern when they are checked into a DCM managed repository. Although only the numeric component is mandatory you can also attach a prefix and/or a suffix to the numeric component/range.

The auto-naming scheme applied to a document is determined by the document class when the document is checked into a DCM managed repository.

To create an auto-naming scheme:

1. Navigate to **Administration > DCM > Auto-naming Schemes** and select **File > New > Auto-naming Scheme**.

Figure 21. Default screen



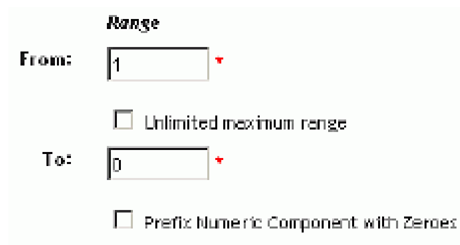
2. Enter values as needed according to the following table and click **Finish** when you are done to save the changes.

   The auto-naming scheme is displayed under **Auto-naming Schemes** once it has been created.

   The auto-naming scheme created is named as a combination of *Prefix+Range:From-Range:To+Suffix*. In utc0003notification1-2cd for example, utc0003notification represents the prefix, 1-2 represents the range with an upper and lower limit, and cd represents the suffix. This example can be used to accommodate 2 documents. Removing the upper range, utc0003notification1-cd for example, whereby the **Unlimited maximum range** is selected, allows for an unlimited number of documents to be named by the scheme.

Table 5. Auto-naming attributes

Attributes	Value
Prefix	The combination of letters entered is attached to the beginning of the number generated within the range when the document is created or imported into the repository.

Attributes	Value
Suffix	The combination of letters entered is attached to the end of the number generated within the range when the document is created or imported into the repository.
Range*	The default value is set to *1* allowing for an unlimited upper range if **Unlimited maximum range** is left selected. The range can start at any number based on the value entered for **From**. The value for **To** is also mandatory when the **Unlimited maximum range** is deselected.  You can for example, create ranges from 100 to 200 or 201 to 300. Selecting the checkbox for **Prefix Numeric Component with Zeroes** when **To** is displayed adds leading zeroes to the numerical component.

Modifying auto-naming schemes

An auto-naming scheme once it has been created, can later be modified from its Properties using these procedures. Although you can view information, permissions, and history, you can also modify the attribute values on the Info tab and the Permissions tab.

To modify an existing auto-naming scheme:

1. Navigate to **Administration > DCM > Auto-naming Schemes**.

2. Right-click an auto-naming scheme displayed in the content pane and select **Properties**.
3. Make the changes needed on the **Info** tab and if necessary on the **Permissions** tab and then click **OK** to save the changes.

   Attributes on the **Info** tab are described in Creating auto-naming schemes, page 92.

   You can also select the **History** tab before clicking OK if you want to see audit trail details.

Deleting auto-naming schemes

The owner of a business application can delete it from the system.

To remove an auto-naming scheme:

1. Navigate to **Administration > DCM > Auto-naming Schemes**.
2. Right-click an auto-naming scheme displayed in the content pane and select **Delete**.
3. Click **OK** to confirm and complete the deletion.

Best practices for using auto-naming schemes

This section offers some recommendations for using auto-naming schemes within your DCM configuration.

Using a single auto-naming scheme in multiple document classes

We recommend that you create a unique auto-naming scheme for each document class.

You can assign a single auto-naming scheme to multiple document classes; however, if you do this, the numbering within each document class may not be sequential.

This happens because if you share auto-naming schemes between document classes, the two classes will share the numbering, which may cause the numbering in a particular document class to have gaps, since each generated auto-name is unique per scheme rather than per document class.

Assigning auto-naming schemes to specific lifecycle states

When configuring document classes or business applications, you can specify that DCM apply particular auto-naming schemes to documents depending on which lifecycle state they are in. For example, if you specify that an auto-naming scheme be applied only if a document reaches the Approved state, you will prevent gaps from occurring in your document numbering sequence due to rejected documents or documents that are not approved.

Chapter 8

User List Rules

User list rules are defined/created for Business Applications associated to a lifecycle state of one or more document classes. Signatories can be configured from the Signatories tab on the lifecycle configuration screen, or from the User List Rules. A user list rule can be defined to target a specific set of users and only those documents, whether a document class is specified or not, whose attributes match the property rule(s). Create a user list rule for a lifecycle state in which you want a specific set of users to receive notifications, against only those documents defined by the property rule(s). Define rules for those states where signatory lists are relevant. For additional details, refer to *Documentum Compliance Manager Administration Guide*.

You must be in the Functional Area Supervisor role to display User List Rules.

To define/create user list rules for a business application:

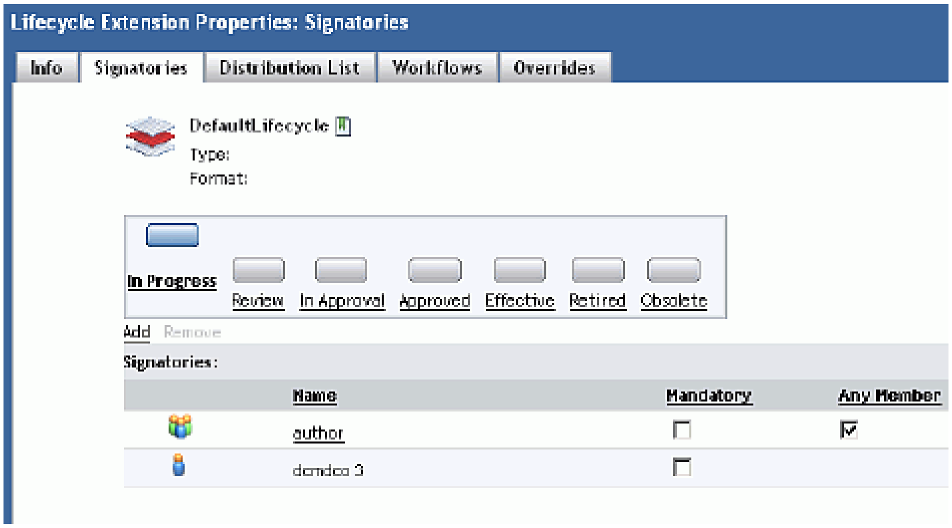
1. Navigate to **DCM > Administration > User List Rules**.
2. Select **File > New > User List Rule**.
3. Complete the entries on each of the tabs for **Create**, **Info**, and **Users/Groups** and then click **Finish**.

   Entries for the **Name**, **Business Application**, and **DCM State Type** mandatory attributes are required to finish the process.

   You can optionally select a **Document Class** once you have selected a Business Application. Only those document classes that specify the Business Application selected are selectable.

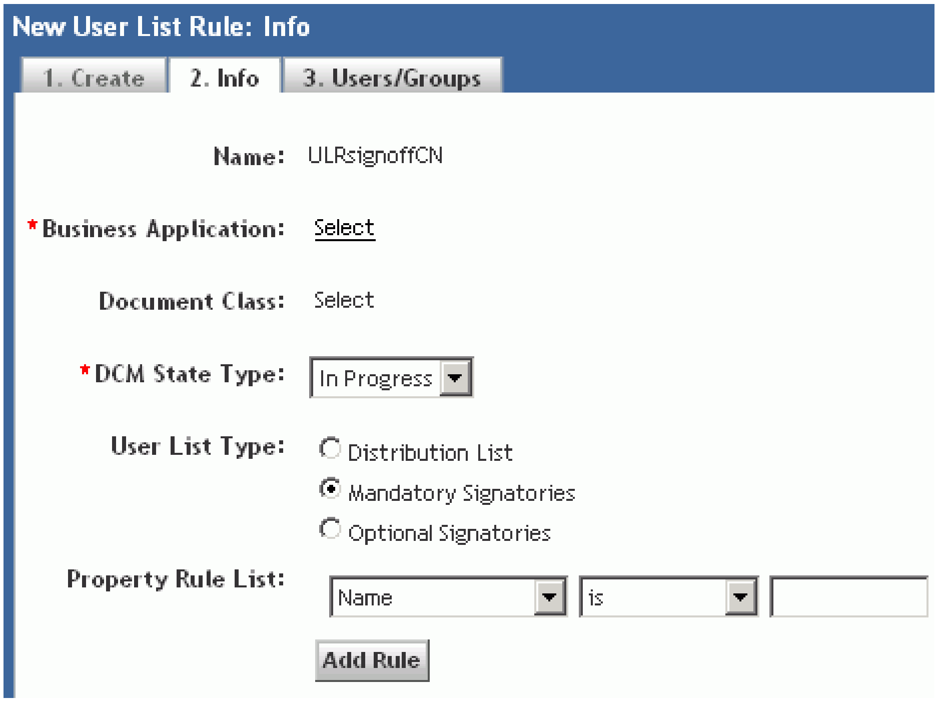
   Select for the **User List Type** the users you want notified for the **DCM State Type** selected. TBR Notifications are sent if the **Distribution List** is selected. Members added to the Distribution List tab on the lifecycle selected for a document class receive the TBR notifications. Selecting **Mandatory Signatories** or **Optional Signatories** determines which set of signatories according to a lifecycle state receive sign off notifications. Keep in mind that Mandatory Signatories are required signatories if the Mandatory checkbox on the Signatories tab of a lifecycle is selected, as illustrated in the lifecycle below. Signatories are otherwise optional if the checkbox is not selected.

Figure 22. Checking the users assigned to signoff notifications and TBR notifications



All documents entering the lifecycle state to which a user list rule applies, are affected if no property rules are specified. Only those documents that match the property rule(s) are affected if one or more property rules are defined/listed. Operators are provided to target specific documents. You could for example, define two property rules such that the Name **and** Subject attributes of a document match the text or such that either the Name **or** the Subject match the text.

Figure 23. Defining the rules for a business application



The History tab is also displayed when you decide to view or edit a user list rule from its Properties screen.

Chapter 9

Relationship Types

This section describes the following:

- About document relationships, page 101
- Creating a relationship type, page 104
- Viewing or modifying relationship types, page 109
- Deleting relationship types, page 109

About document relationships

Document relationships define dependencies between two documents. An attachment to a controlled or uncontrolled document is an example of a document relationship. Multiple relationships can be created for a particular document.

When a document is Approved or promoted, DCM looks up the relationships defined for that document to decide whether the document will be Approved or promoted separately or as part of a group.

For example, if a change request is issued against an SOP, then the change request has a relationship with the SOP. Relation types are unique to specific document types.

Relationships in DCM are useful if you want to:

- tie content together in related documents
- use an Against relationship type to associate documents with change requests
- manage change sets (that is, signoff groups of content as a whole) using change notices and their related documents

A relationship type under **Relationship Types** must first be created before a document relationship can be created/formed. The parent document for example, must be defined in a relationship type under **Relationship Types** before it can be selected for a document relationship, with a child document. You can increase the pick list of attachments for a particular document by creating one or more relationship types.

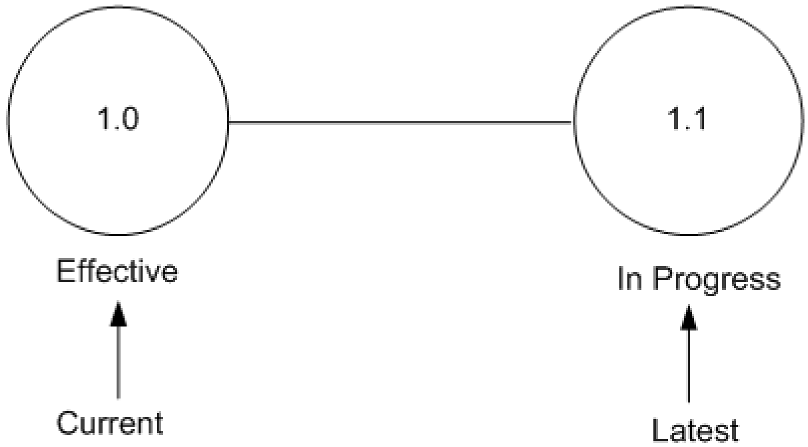
The attachment or child document selected to which the parent points is either early bound or late bound depending on the relationship type selected: *Process*, *Against*, *Reference*, and *Supports*. The parent document in an early bound relationship always points to the designated version of the child document, regardless of any subsequent check ins or the CURRENT version. The parent document in a late bound relationship always points to the CURRENT version, unless *Process* is the selected type. The pointer in this case points to the CURRENT version when a new one is checked in. The pointer for example pointing to 1.0 of the attachment will point to 1.1 when it is checked in as CURRENT. Once the parent is promoted to the Approved or Effective state, the pointer will continue to point to 1.1 even though 1.2 is checked in as CURRENT. It goes from a floating behavior to one that is fixed. The following table contrasts the relationship types.

Table 6. Binding rules for document relationships

Relationship Types	Early Bound (fixed)	Late Bound (floating)	Notes
Process		x	**Typically** points to the CURRENT version of a **controlled document**. Once resolved however, promoted to the Approved or Effective state, stops floating. **Process rules** are available only when this relationship type is selected and can be defined for both **Promote** and **Signoff** operations/options.
Against	x		**Always** points to the DESIGNATED version of a **controlled document**.
Reference		x	**Always** points to the CURRENT version of a **controlled document**.
Supports		x	**Always** points to the CURRENT version of an **uncontrolled document**.

The CURRENT document in the Effective state is replaced by the Latest document only when it is checked in as CURRENT.

Figure 24. Effective versus Latest Versioning



Supporting relationships and uncontrolled objects

Uncontrolled objects are objects that are not managed in a controlled environment. The content may be a supporting document, email, or other documents. Uncontrolled documents are documents of type dm_document with no equivalent document class.

Uncontrolled documents related to a document class are usually referred to as *supporting* documents. For further details refer to Supporting documents, page 72.

Attachment rules

Attachment rules define the document classes and lifecycle states for attaching this relationship. All relationship types can define both parent and child attachment rules, but the Supports relation type cannot define child attachment rules, since the child is a non-controlled or uncontrolled document.

The attachment state type indicates the DCM state types of a controlled document. The parent attachment state type indicates the specific state types of the parent document for which you can create this relationship. Only parent documents in these states will be able to use this relationship. Likewise, the child attachment state type indicates the specific state types of the child documents that may be attached using this relationship. Only documents in these states may be attached to the parent using this relationship.

Relationships for approved and effective documents

Any time you check in a new version of an Approved or Effective document, the associated relationships for that document are removed for the new version. Relationships against the CURRENT Effective version of the document however are not removed. Relationships against the new version are removed because you do not want to automatically promote or demote these kinds of documents, especially since the automatic promotion for an Effective document is to the Obsolete state, no matter what interim states your lifecycle defines for that document class.

Creating a relationship type

Use this procedure to create one or more attachments, relationships, for a controlled document, change request, or change notice. Only administrators or super users can create new relationship types.

To create a document relationship:

1. Navigate to **Administration > DCM > Relationship Types**.
2. Select **File > New > Relationship Type** and click **Finish** when you have completed the form for each tab. To create a relationship type against the default settings, enter a unique value for the **Relationship Name** on the **Create** tab and a unique value for the **Label** on the **Info** tab and then click **Finish**. You can later modify the attributes from its Properties when necessary.

   Refer to the following table, when necessary, for a description of the attributes. All mandatory attributes identified with an asterisk must have a value entered.

Table 7. New relationship type attributes

Attribute	Value
Relationship Name	The value you enter for this attribute must be unique, different from existing relationship types.
Name*	This value is read-only and displays the value entered for the Relationship Name.

Attribute	Value
Label*	The value you enter for this attribute is displayed in the list box of the **Relationship** attribute when you follow procedures to add an attachment to a controlled document. The more attachments you create for a controlled document the greater the pick list becomes in the list box. When necessary, you can navigate to the **Relationship Types** and look for the label that matches the one you want to select from the list box to determine which **Type** the selected relationship is.
Description	The description should briefly describe the attachment.
Type*	From the list box, choose one of the following options: • *Process*: this type defines processing that needs to be performed on a **controlled document**. Process rules define what processing to perform on a child document(s) when actions are taken against the parent document. • *Against*: this type defines a reference to a **controlled document**. This reference always refers to the original version of a document when it was attached. It is used for change requests to identify a particular version of a controlled document that needs changing. • *Reference*: this type defines a reference to a **controlled document**. This reference always refers to the current version. It is used to ensure that the reference always points to the current (effective) version of a document. • *Supports*: this type defines a reference to a **non-controlled document**. This type sets up a relationship between a

Attribute	Value
	controlled document and the current version of an uncontrolled document.
Parent*	The list box for this attribute lists all business applications and document classes. Select the name of the business application or document class you want to designate as the parent for the attachment. **Note:** Process Rules can not be changed when a business application is selected. If a business application is selected, then **Aggregation**, **Promote** and **Signoff** options are disabled. These options are described at the end of this table. 
Parent Lifecycle State Type	This setting determines in which lifecycle state(s) the parent document class specified above can have children documents. To choose all lifecycle states, click the **All** radio button. To choose one or more specific lifecycle states, click the **Specified** radio button, then click the **Edit** hyperlink to select from a list of available lifecycle states.

Attribute	Value
Child Document Class	This setting allows you to define which document classe(s) are designated as children to the parent document class specified above. To choose all available document classes, click the **All** radio button. To choose one or more specific classes, click the **Specified** radio button, then click the **Edit** hyperlink to select from a list of available document classes.
Child Lifecycle State Type	This setting determines in which lifecycle state(s) the children documents must be in before they can be attached to the parent document. To choose all lifecycle states, click the **All** radio button. To choose one or more specific lifecycle states, click the **Specified** radio button, then click the **Edit** hyperlink to select from a list of available lifecycle states.
Aggregation	This option is available only if the value for the relation **Type** is set to *Process* and the value for the **Parent** is set to a document class. This option, if selected, collects all signatories and adds them to the Parent.
Promote	This option is available only if the value for the relation **Type** is set to *Process* and the value for the **Parent** is set to a document class. • Select **Just the parent** to promote only the parent document. • Select **Group promotion (parent and child)** to promote the parent document and its child documents. This option when selected permits you to limit promotion of only

Attribute	Value
	the child document(s) to specific states. Although the parent could be promoted from state 1 to 2 and 2 to 3 and 3 to 4 for example, you can limit promotion of its children from 2 to 3. Click **Edit** when this option is selected and then click **Edit** next to the child start and finish state to specify the appropriate states. **Child Start State Type :** Edit **Child Finish State Type :** Edit
Signoff	This option is available only if the value for the relation **Type** is set to *Process* and the value for the **Parent** is set to a document class. • Select **Just the parent**to sign off only against the parent document. • Select **Group Signoff (parent and child)** to sign off against the parent document and its child documents. This option when selected permits you to limit sign off against the child document(s) to specific states. Although the parent could be signed off in states 1, 2, and 3, for example, you can limit sign off of its children to only state 2 to 3. Click **Edit** when this option is selected and then click **Edit** next to the child start state to specify one or more states in which child documents must be signed off. **Child Start State Type :** Edit

Viewing or modifying relationship types

To modify an existing relationship, you must log in to DCM as business application owner or document class owner.

To view or modify a document relationship:

1. Navigate to **Administration > DCM > Relationship Types**.
2. Right-click a relationship displayed in the content pane and select **Properties**.
3. Modify entries on the Info tab as needed and click **OK** to save the changes. The History tab provides read-only information against the version(s) you want displayed. Refer to Creating a relationship type, page 104 if necessary, for a description of the attributes. Click **OK** or **Cancel** if you are only viewing.

Deleting relationship types

The owner of a relationship type can delete it from the system.

To remove a relationship type from your repository:

1. Navigate to **Administration > DCM > Relationship Types**.
2. Right-click a relationship displayed in the content pane and select **Delete**.

   The following confirmation message is displayed:

   To delete the object, click OK. If you do not want to delete the object, click Cancel.
3. Click **OK** to confirm and complete the deletion.

Chapter 10

Lifecycle Extensions

This section describes the following:

- Lifecycles overview, page 111
- Promoting a controlled or uncontrolled document, page 114
- Demoting a controlled or uncontrolled document, page 114
- Assigning a lifecycle, page 115
- Assigning a lifecycle to a controlled document, page 116
- Removing a lifecycle, page 116
- Suspending an effective document, page 117
- Resuming a suspended document, page 118
- Editing lifecycle state extensions, page 119
- Enabling manual promotion for a lifecycle state, page 123

Lifecycles overview

A lifecycle defines the different states a document goes through as it is created, edited, approved, and, eventually, retired. For example, an employee might create a new human resources form, another employee might review it and return it for revision, and a third employee might give the sign off necessary to make the document available to all employees. The lifecycle defines which state the document is in at each point in the process.

Note: You can apply or remove (detach) a lifecycle for uncontrolled documents only. You cannot apply or remove (Detach) a lifecycle for controlled documents. If you select an uncontrolled document for example, you will notice the options to Apply and Detach are available among the other options listed. The same two options when a controlled document is selected are not available.

Figure 25. Lifecycle options for uncontrolled documents

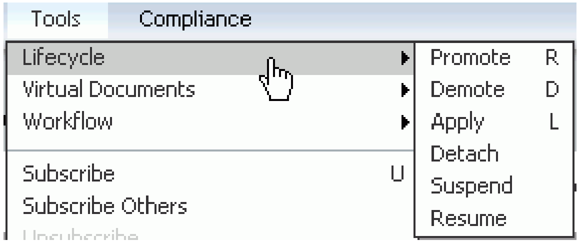
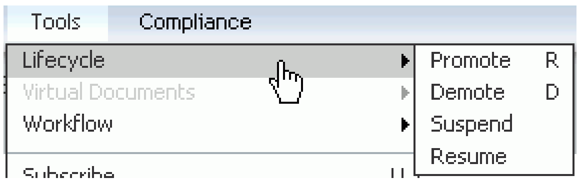


Figure 26. Lifecycle options for controlled documents



DCM automatically assigns a lifecycle when a file is created and puts the file into the first state in the lifecycle. You can advance or demote files manually, or DCM can advance or demote them automatically. The lifecycle determines what conditions must be met for automatic advancement. Depending on your WDK application, an item can also be demoted to a previous lifecycle state.

A basic DCM lifecycle has the following states:

- **In Progress**
- **Review**
- **In Approval**
- **Approved**
- **Effective**
- **Retired**
- **Obsolete**
- **Suspended**

Additional details regarding DCM lifecycle states are provided in the following table:

Table 8. DCM lifecycle states

Lifecycle State	Description	Mandatory or Optional State
dcm_in_progress	The first state.	Mandatory
dcm_in_review	The review state of a document.	Optional

Lifecycle State	Description	Mandatory or Optional State
dcm_in_approval	Typically used when setting signatures for a document.	Optional
dcm_approved	The document is promoted to this state when mandatory signatures are obtained.	You must have either an approved or effective state type.
dcm_training	An extra optional state for ensuring people understand the document before it goes effective.	Optional
dcm_effective	A document is put into this state when it is approved (approved).	You must have either an approved or effective state type.
dcm_retired	For documents that have been replaced by a newer version.	Mandatory
dcm_obsolete	For documents that have been completely replaced by a different document.	Mandatory
dcm_suspended and dcm_reject are exception states which could be off any state		
dcm_suspended	An exception state that the original effective document is put into when a later version is made temporarily effective. Required only if you have an effective state (and is the exception state). dcm_suspended is an exception state that must exist if you have an effective state type.	Mandatory
dcm_reject	An exception state used by Change Notices and Change Requests.	Optional

Promoting a controlled or uncontrolled document

Controlled or uncontrolled documents managed by a controlled lifecycle, that is a DCM lifecycle extension or cutomized DCM lifecycle, are automatically promoted to the next state unless the DCM lifecycle for the document class created allows for manual promotion. When you promote an item, the folder and/or its contents, DCM checks whether the item is linked to other items that are candidates for promotion. Depending on your WDK application, you are either prompted to promote those items as well or the items are automatically promoted if there is a relation type specified to do so.

If you are the item's owner or a superuser, you need only **Write** permission on the item to manually promote it. You must have **Write** permission plus **Change State** permission to promote an item if you are not the owner of the item or a superuser.

You need to be the document class contributor or coordinator to promote a controlled document to the Approved state. Only document class coordinators can promote a controlled document from the Approved state or any subsequent state.

Note: DCM will only allow an item to be promoted manually if the state the document is in is configured to allow it.

To manually promote controlled or uncontrolled documents to the next lifecycle state:

This operation is not available for reference objects or foreign objects.

1. Navigate to the controlled or uncontrolled document in the repository.
2. Select **Tools > Lifecycle > Promote**.

   A controlled document must be the latest version in its branch to be promoted.

   You are not permitted to continue the process if the selected item is managed by a controlled workflow.

Demoting a controlled or uncontrolled document

Demoting returns an item to its previous lifecycle state. To demote an item, you must have the Change State permission on the item.

To demote a controlled document you must be a document class contributor or coordinator.

Note: DCM will only allow an item to be demoted if the state the document is in is configured to allow it.

To demote a controlled or uncontrolled document:

This operation is not available for reference objects or foreign objects.

1. Navigate to the controlled or uncontrolled document in the repository.
2. Select **Tools > Lifecycle > Demote**.
3. Enter your **User Name** and **Password** when prompted and click **OK**.

   You are not permitted to continue the process if the selected item is managed by a controlled workflow.

Assigning a lifecycle

DCM automatically assigns lifecycles to controlled documents at creation and can not be changed.

If your WDK application supports manual assignment, you can manually assign a lifecycle if you have administrator- or developer-permission levels. You might want to manually assign a lifecycle to support new or different states. For example, let us say you have a lifecycle with four states: Start, WIP, Staging, and Approved. And let us say a user checks in a press release using that lifecycle. However, this particular press release must be reviewed by upper management before it is sent to staging, so a different lifecycle must be applied to the press release. An administrator could apply a different lifecycle.

To assign a lifecycle to an object, you must have at least **Write** permission on the object. If you are attaching the item to a lifecycle or replacing a lifecycle, you must have at least **Relate** permission on the lifecycle.

When you assign a lifecycle to a file, you can also choose an *alias set* to associate with the file and the lifecycle. The alias set can identify the particular individuals who review, promote, or, depending on your WDK application, demote the file. Alias sets can also specify permission sets and repository locations.

Consult your repository administrator for specific information on the alias sets available in your installation.

When setting a lifecycle for a template, keep in mind that the lifecycle is assigned to all future files created from the template. The new lifecycle does not affect files that have already been created.

To manually assign a lifecycle:

This operation is not available for reference objects or foreign objects.

1. Navigate to an uncontrolled document in the repository.
2. Select **Tools > Lifecycle > Apply**.
3. Select a lifecycle when prompted and click **OK**.

Assigning a lifecycle to a controlled document

A lifecycle applied to an uncontrolled document must be assigned manually.

A lifecycle is automatically assigned to a controlled document, change request, change notice when imported into a DCM controlled repository or when they are created in a DCM controlled repository. The lifecycle is associated with a controlled document based on the document's document class. Your administrator defines which lifecycles are associated with which document classes.

After checkin, controlled documents are moved to the appropriate folder as dictated by the document lifecycle and advance through a series of lifecycle states. Typically, controlled documents undergo some form of review and sign off before advancing to the Effective state in their lifecycle. Documentum Compliance Manager provides change requests, change notices, and workflows as mechanisms for review, sign off, and promotion. DCM also allows reviewers to promote controlled documents to the next state in the lifecycle manually. When all of the required signatories have approved the controlled document it moves to the next state in its lifecycle.

Note: Attaching a lifecycle to an uncontrolled document will not convert the uncontrolled document into a controlled document. If you want to convert an uncontrolled document into a controlled document refer to, Converting a document to a controlled document, page 60.

Controlled document lifecycles cannot be removed.

For more information on controlled documents refer to, Chapter 3, Controlled Documents.

Removing a lifecycle

Use this procedure if you need to remove a lifecycle from an **uncontrolled document**.

You must have at least Write permission on an item in order to remove a lifecycle from it. If you are replacing a lifecycle, you must have at least Relate permission on the new lifecycle.

Note: You can not remove a lifecycle from a controlled document.

To remove (detach) a lifecycle:

This operation is not available for reference objects or foreign objects.

This operation is not available in some WDK applications.

1. Navigate to the uncontrolled document in the repository.
2. Select **Tools > Lifecycle > Detach**.

   The option to detach will not be available if the selected document is a controlled document.

Suspending an effective document

Suspending an effective document temporarily halts the lifecycle's progress. Changes in company policy for example, might mean that an approved file would have to be withdrawn from use temporarily.

This operation must be performed manually if the document to be suspended is in a lifecycle state other than the Effective state defined for DCM lifecycles or for any customized lifecycle that defines a state equivalent to the Effective state. Any state in which you want to have a document suspended, must include an exception state. Available lifecycles may have been customized or can be customized to include an exception state on states other than the Effective state or its equivalent.

Note: The restricted ACL, on an exception state, for the dm_owner or for the dm_superusers_dynamic group must be set to WRITE permissions for Demote, Suspend, and Resume operations to succeed.

Customers need to give the dm_owner WRITE permissions, or dm_superusers_dynamic group should be given WRITE permissions in order to make Demote, Suspend, and Resume actions work against controlled documents.

Documents in the Effective state are automatically suspended when the latest version of the effective document is checked in, approved, and made temporarily effective. An effective document in the Effective state can NOT be automatically suspended if it does not have a temporary replacement in the state previous to the state containing the effective document. DCM requires that a suspended document in the Effective state be replaced by a temporarily effective document at the time of suspension. Resumption of the suspended document retires the temporarily effective document. **To suspend a document in the Effective state**, refer to Making a controlled document temporarily effective, page 65. The document is automatically resumed/reinstated when the expiration date entered for the temporarily effective document is reached.

To suspend a document in a lifecycle state other than the Effective state:

This operation is not available for reference objects or foreign objects.

1. Navigate to the state that contains the document to be suspended, **Cabinets > In Approval** for example.
2. Select the document to be suspended in the content pane and click **Tools > Lifecycle > Suspend**.

   This operation will be successful only if the current state has an exception state defined. A warning is displayed if the exception state is missing:

This operation can only be performed against a lifecycle state that has an exception state defined. DCM uses an exception state to allow suspension of an effective document regardless of the state. The CURRENT version 1.0 of a controlled document is typically the effective document, unless a subsequent version checked in is made CURRENT. Subsequent checkins/versions of the same document, 1.1 for example, when made temporarily effective automatically suspends the CURRENT version, 1.0 in this example, until the expiration date entered for the temporarily effective document is reached. The temporarily effective document is automatically retired once the CURRENT version is resumed. Documents that are manually suspended are suspended indefinitely until they are manually resumed/reinstated.

To suspend an item, you must have **Change State** permission on the item. You cannot suspend an item whose state type is a normal state with no exception state, or if the item is already suspended. All Effective states for example, on DCM lifecycles available out-of-the-box, include an Exception State though it is not displayed. The exception state can only be viewed using Documentum Application Builder (DAB).

Note: You cannot suspend a child document in either group promote or group signoff relationship. You must either remove the child from the process relationship or suspend the parent document first.

Resuming a suspended document

Resuming a suspended document resumes the lifecycle's progress and consequently:

- retires the temporarily effective document
- reinstates the effective document that was suspended

Documents suspended in the Effective state of a DCM lifecycle are automatically reinstated when the expiration date of the temporarily effective document is reached. Documents in the Effective state are automatically suspended and resumed. Documents suspended in a state other than the Effective state (or its equivalent state in a customized lifecycle) must be manually suspended and resumed.

Only the workflow supervisor or a user with Sysadmin or Superuser privileges can resume a halted workflow, paused activity, or work item. To resume an item, you must have the Change State permission on the item.

To resume a document in a lifecycle state other than the Effective state:

This operation is not available for reference objects or foreign objects.

1. Navigate to the state that contains the document to be resumed/reinstated, **Cabinets > In Approval** for example.
2. Select the document to be reinstated in the content pane and click **Tools > Lifecycle > Resume**.

You cannot manually resume a controlled document to the effective state. Resuming to effective state can only be done by the DCM Reinstate job when the temporarily effective document is expired. You cannot resume the parent document in group promote/signoff relationship if any of its children is in the suspended state.

Editing lifecycle state extensions

Lifecycle extensions listed under Lifecycle Extensions are created when a document class is created for a controlled document. Use this procedure to modify the properties of a lifecycle state when necessary.

DCM allows you to add or modify information about the mandatory and optional signatories, and to-be-read (TBR) groups, roles, and users values for each state defined in a DCM or customized lifecycle. These values are stored as properties in an instance of a repository object, named dcm_state_extension. You can use these properties to specify that your system perform specific tasks, such as applying an autonaming or autonumbering scheme to the document, during particular document lifecycle states.

For the lifecycle extension GUI, the state type is read-only and is read from the lifecycle state. If the lifecycle state changes, you are warned to save changes to allow for updating to occur. Users have the ability to specify that e-signatures can be employed for specific states. Users also have the ability to demote for a specific state (disabled based on lifecycle and state type).

When promoting, the version is set to the state name rather than the state type.

Additional states are included between **Approved** and **Effective**. These states are available provided that a default value, dcm_training, is available.

Additional states can be included but are not unless a customer adds them.

The following conditions affect the demotion of a lifecycle:

- If **Demote** is enabled for the lifecycle state, demotion is possible.
- Demotion allows a document to return to its previous state.
- When you demote a document, document relationships are not affected.
- When demoting, sign off status for the document must be set to **Standby** before and after demoting.

- A document in a sign off aggregation relationship cannot be demoted.
- When a document is successfully demoted or fails to demote, the document owner and document class coordinators should be notified.
- Only the most recent version of a document can be demoted.

To define or modify the properties associated with lifecycle state assignments:

1. Navigate to **Administration > DCM > Lifecycle Extensions**.

   Make sure the list boxes of the filters in the upper right-hand corner of the screen are set to suit your viewing. The default value is set to *Current User's DC's LC Extensions*. You might want to change the default value to *All Lifecycle Extensions* and also set Show Items to display *10*, *50*, or *100* items per page.

2. Right-click a lifecycle displayed in the content pane and select **Properties**.

   The **In Progress** state is displayed by default across all of the tabs when a DCM lifecycle is used. The state displayed when a customized lifecycle is used would be the equivalent to the In Progress state.

   The selected state at the top of a tab is displayed across all tabs.

3. Select the state you want to modify and enter values for each tab as needed and then click **OK** or, click **OK** after you are done modifying any other state you want controlled.

   Although clicking **OK** saves the changes, **you will also need to logout of DCM and login again for the changes to take affect**.

   Refer to the table below for a description of the attributes you want to modify on the **Info** tab and the **Overrides** tab. Users, groups, and roles added to the **Overrides** tab are associated with the values specified on this tab instead of the predefined values specified on the **Info** tab. Each user, group, and role added as an override can be associated with its own unique set of custom code and text. All users, groups, and roles added do not have to be associated with the same code and text. You would have to select the radio button next to the user, group, or role added to specify custom settings. **Show Info** on the **Overrides** tab reveals the following attributes also common to the **Info** tab:

   - **Signoff Code**
   - **Approval Confirmation Text**
   - **Reject Code**
   - **Reject Confirmation Text**
   - **Notification Text**
   - **TBR Notification Text**

   The predefined values or default values on the **Info** tab are used if you do not change settings for any overrides added.

Create a list of signatories on the **Signatories** tab for the selected state. Users, groups, and roles added/provided can later be selected as needed to be required signatories for a controlled document that uses this lifecycle. A required signatory could also be part of an any member group selected for acquiring sign off. The **Mandatory** and **Any Member** checkboxes can be selected as needed to create required signatories for a controlled document that uses this lifecycle.

Add to the **Distribution List** tab the users, groups, and roles which should be sent To Be Read notifications for the selected state. All signatories added to the Signatories tab or only those selected as Mandatory (required signatories) for example, can also be added to this tab as needed.

You can also create a list of controlled workflows that could be used to route/deliver sign off notifications and tasks to required signatories.

Note: The name of the selected lifecycle and its states are displayed at the top of each tab. And, a state selected for modification is the state displayed across all tabs.

Table 9. Lifecycle extensions attributes

Attribute	Value
State Name	The name of the current lifecycle state whose properties are displayed. The values displayed for the **State Name** and the **State Type** are the same when a DCM lifecycle out-of-the-box is selected.
State Type	The name of the DCM state that corresponds to the custom state name in the **State** field. This attribute lists only the DCM lifecycle state types.
Promote after last Signoff	If checked, the document will automatically be promoted to the next defined lifecycle state upon signoff.
Send to be read Notifications	If checked, the system will automatically send To Be Read notifications to the users or groups specified on the **Distribution List** page.

Attribute	Value
Use Autoname scheme	If checked, the system automatically renames the document when it enters this lifecycle state, using the autonaming scheme you defined for the document class.
Allow manual promotion	If checked, this option specifies if the system should display a **Promote** button for a particular signatory for the specific lifecycle state that you are modifying.
Allow demote to previous state	If checked, this option specifies if the system should display a **Demote** button.
Manifest e-signature	If checked, documents are routed for explicit approval with e-signature manifestation so that the action taken by each required signatory is recorded and verifiable.
The following attributes are common to both the **Info** tab and the **Overrides** tab. These attributes on the **Overrides** tab however are not revealed/displayed unless **Show Info** is selected when a user or group is added.	
Signoff Code	Value(s), or justification codes, entered for this attribute are selectable when a required signatory decides to either approve or promote a controlled document in a lifecycle state. Add from the existing list or enter your own justification text when you click **Edit**.
Signoff Confirmation Text	The value entered for this attribute is displayed in a confirmation screen when a required signatory approves or promotes a controlled document in a lifecycle state.

Attribute	Value
Reject Code	Value(s), or justification codes, entered for this attribute are selectable when a required signatory decides to reject a controlled document in a lifecycle state. Add from the existing list or enter your own justification text when you click **Edit**.
Reject Confirmation Text	The value entered for this attribute is displayed in a confirmation screen when a required signatory rejects a controlled document in a lifecycle state.
Notification Text	The value entered for this attribute is the headline displayed on notifications sent to recipients added to the Distribution List. The text for this notification prompts users for their sign off against the attached task/document, "This document requires your signoff" for example.
TBR Notification Text	The value entered for this attribute is the headline displayed on To Be Read (TBR) notifications sent to recipients added to the Distribution List. The text for this notification prompts users to read the attached document, "This document must be read and understood" for example.

Enabling manual promotion for a lifecycle state

Documents controlled by lifecycles are automatically promoted to the next state unless the option to manually promote is enabled.

Caution: Do not enable manual promotion for lifecycles that are used to control change notices and change requests.

To enable manual promotion for a lifecycle state:

1. Navigate to **Administration > DCM > Lifecycle Extensions**.

   Make sure the list boxes of the filters in the upper right-hand corner of the screen are set to suit your viewing. The default value is set to *Current User's DC's LC Extensions*. You might want to change the default value to *All Lifecycle Extensions* and also set Show Items to display *10*, *50*, or *100* items per page.

2. Right-click the lifecycle in the content pane that corresponds to the document class the controlled document uses and select **Properties**.

3. Select the state, depicted at the top of the screen on the **Info** tab, that needs to be modified.

4. Select the checkbox to **Allow Manual Promotion**.

5. Click **OK** to accept/save the changes.

6. Log out of DCM and log in again for the changes to take affect.

Chapter 11

Notifications

This chapter describes the following:

- Administering notifications, page 125
- What is a TBR, page 128
- Configuring a TBR, page 129
- Sending a TBR, page 129
- Responding to a TBR, page 130

Administering notifications

Notifications are intended to prompt a response against a task, such as a **To be Read** or **Signoff required** notification, and to advise of any follow-up actions and possible errors know as event notifications, user and system triggered events as described in *About Notifications* under *DCM key concepts and features* in the *Introduction*.

Notifications are scoped to a Document Class or Business Application. Signatories for **Signoff required** notifications assigned to a particular Document Class for example, are set on the **Signoff** tab. The **TBR** tab sets the priority of a TBR notification. The distribution list for a TBR is set on the lifecycle state of a particular Document Class or Business Application whereas the distribution list for Signoff required notifications is set on the **Signoff** tab when you edit a scope, Document Class or Business Application. Separate procedures are provided below to administer TBRs.

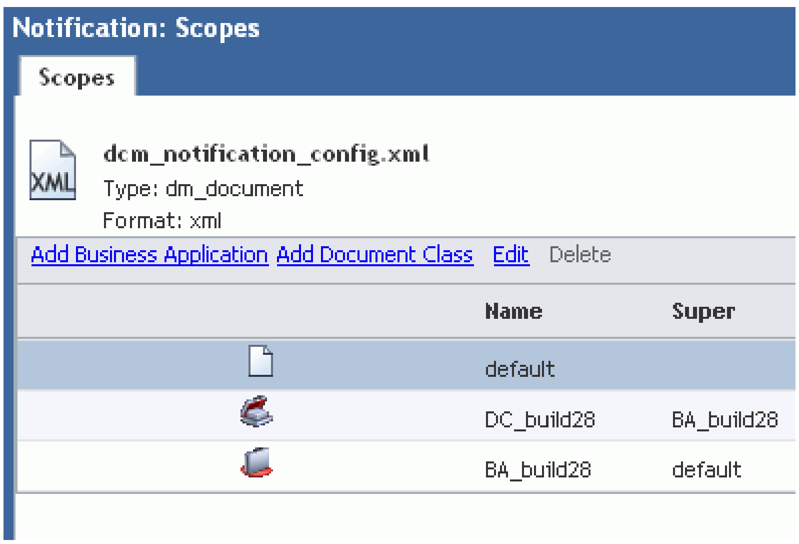
Use the **dcm_notification_config.xml** file according to the procedure provided below to administer notifications. Its available out-of-the-box and contains the **default** scope with all of the settings pre-configured for you. The **default** scope can NOT be deleted when selected as can any other scope that may be listed below it. The procedure can be used to **Edit**, **View**, or **Unlock** the file. Using the **Edit** option, you can create a new scope by adding a business application and/or a document class, and when necessary modify the settings for any of the scopes listed.

Scopes, other than the **default** scope, when edited include options to **Enable** or **Inherit** on each of the tabs displayed. The **default** scope however does not include the **Inherit** option on any of its tabs, see for example, the TBR tabs illustrated below. Settings are inherited from the **Super** when the **Inherit** option is selected. The **Super** specifies the default if the document class or business application is not added/listed. There is no lookup for the **Super** if the **Inherit** option is turned off (the checkbox is deselected). When it is turned on however, lookup is conducted against the three layers:

- Top - default
- Middle - business application
- Bottom - document class

For example, if a configuration at the document class level has **Inherited** turned on, DCM will use the same document class parent configuration which is its business application. If the parent business application is not configured, DCM will use the **default** configuration/scope. The **default** scope for this reason can not be deleted.

Figure 27. Scopes listed for dcm_notification_config.xml



The following screen is displayed when you **Edit** a scope.

Figure 28. Editing the default scope

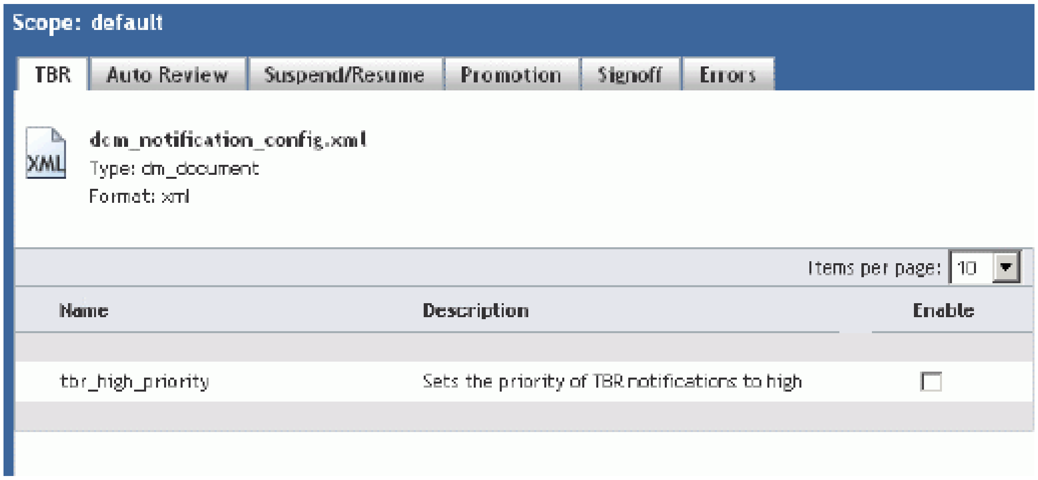
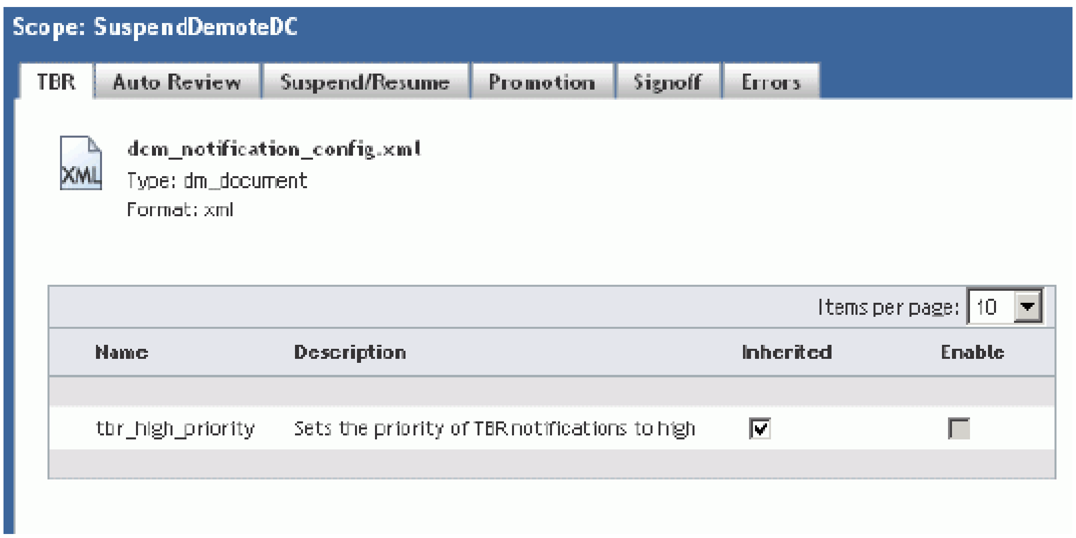


Figure 29. Editing a scope other than the default scope



To create a scope or to view or modify settings of a scope contained in the notification configuration file:

Notifications are configured/scoped according to the default scope for a document class or business application if no other scopes are listed in the notification configuration file under the **default** scope.

1. Navigate to **DCM** > **Administration** > **Notification**.
2. Right-click **dcm_notification_config.xml** displayed in the content pane and select:

- **Edit**: to create a new scope or to modify an existing scope. The xml document format of the scope is checked out whenever it is edited. The xml is checked in when the administrator saves the changes.
- **View**: to view the xml file with no checkout/checkin actions.
- **Unlock**: to cancel checkout if the xml file is inadvertently locked. The xml file gets locked if the user inadvertently exits the Edit mode or closes the browser. The xml in such instances remains checked out and needs to be checked in with a cancel-checkout to restart the edit.

3. Optionally, click **Add Business Application** or **Add Document Class** to create new scope when necessary.
4. Right-click an existing scope and select **Edit** to modify it or when necessary, **Delete** to dispose of it. The **default** scope is required and can NOT be deleted since the option for it is not available as it is for other scopes added/listed.

   Any scope selected for **Edit** is checked out and locked and can only be unlocked when it is checked in by the user who checked it out. Other users can only view it when it is checked out and locked.
5. Modify the settings on the applicable tab(s) for the notification type(s) you want to affect and then click **OK**. Select or deselect the checkboxes on the applicable tab to modify the settings.

   Settings are inherited by default from the **Super** displayed for the selected scope.
6. Click **Save** to accept changes for the scope(s) edited/modified.
7. Click **Save New** to complete the process and save all changes against **dcm_notification_config.xml**.

   The new notification configuration file displayed in the content pane is identified with a new CURRENT version number.

   Right-click **dcm_notification_config.xml** if it is locked, and select **Unlock** to checkin the file.

What is a TBR

A To Be Read (TBR) notification is used to ensure that the right people read and understand the document. The recipient needs to acknowledge and complete the task from their Inbox. The sending and confirmation of the TBR is audited. Although TBRs cannot be deleted they will no longer be displayed once confirmed.

Typically TBRs are sent when a document reaches the Approved state. This is to ensure that the key people understand the document before it becomes effective. TBRs unlike Signoff required notifications do not require recipients to perform any sign off action.

TBRs for example, can be sent to new employees as part of their training to track their understanding of company documents.

Configuring a TBR

Configuring TBRs to be sent on entry into a lifecycle state

TBRs can be configured to be automatically sent upon entering a lifecycle state. This is done by setting a distribution list on the lifecycle state. If **Send TBR** is configured on the lifecycle state, then the distribution list notification is sent as TBRs. Refer to Editing lifecycle state extensions, page 119 for additional details.

Overriding the TBR notification text

Administrators can specify override TBR notification text for either users, groups, or roles. This can be configured through the properties of a specific user, group, or role.

Sending a TBR

You can not send a TBR notification against a document unless its document class is configured in the lifecycle state from which you want to send the TBR notification. You also have to be a member of the contributor role for its document class.

To send a TBR:

1. Navigate to a folder under **Cabinets** representing the lifecycle state from which you want to send a TBR notification.
2. Select the document listed in the content pane for which you want to send a TBR notification and select **Compliance > Send TBR**.

   You will see either an error message prohibiting the operation or a dialog box that will allow you to continue the operation. The following are examples of possible error messages for this operation:

   Error: TBR cannot be sent for the selected document(s), user is not a contributor for the document class.

   Error: Document class prohibits sending TBR in this state: In Approval

The state displayed in the second error message is dependant on the state from which you are sending the TBR notification.

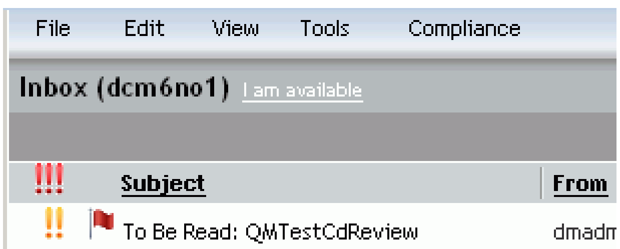
3. Click **Select user/group** on the dialog box, if it is displayed, to create a distribution list. Otherwise, click **Cancel** on the error message, if it is displayed, to abort the operation.
4. Click **Ok** on the locator screen when you are done adding/creating a distribution list.
5. Click **Ok** on the **Send TBR** dialog box to complete the operation.

Responding to a TBR

To Respond to a TBR

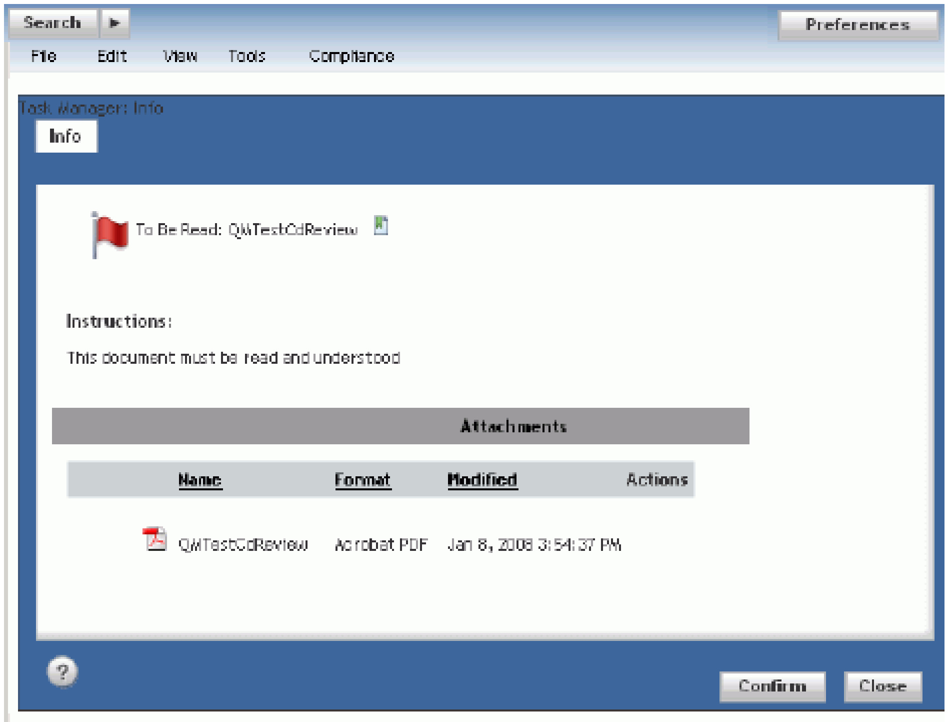
1. Navigate to your **Inbox**.
2. Double-click TBR notification listed in the content pane.

Figure 30. Example of a TBR listed in the content pane



The Task Manager Info dialog box is displayed in the content pane.

Figure 31. Responding and confirming a TBR notification



3. Click **Confirm**. The TBR notification listed in the content pane is no longer displayed once confirmed.

   Although promotion is not prevented when there are multiple TBR notifications (not yet confirmed) in your Inbox, you must confirm the TBR notifications one by one even if all the tasks contain the exact same file. All outstanding TBR notifications in the user's Inbox against earlier versions of a particular document are keep, even when the new version has been checked in.

Reporting on TBRs

To generate a TBR Report refer to Using the reports tool, page 144.

Chapter 12

PDF Stamping Service

The PDF Stamping Service (PSS) supports the functionality to apply watermarks to PDF renditions without affecting the original document. Watermarks can be created from Text, Image and PDF templates. PDF forms, available for the PDF template, can also be configured to render the PDF templates differently.

The PSS configuration file(s), xml file(s), displayed under the DCM Administration node (Administration > DCM > PDF Stamping Services) support configurations for watermark functionality only. An xml file must be created to configure watermark overlays. You can edit the default xml provided upon installation or create a new configuration xml to support different needs for watermarks.

PSS supports hierarchical configurations for watermarks, which means you do not have to explicitly complete all configurations if the configuration exists at a super level. DCM 6.5 supports two hierarchy types: Documentum object type based hierarchy and DCM Business Application/Document Class based hierarchy. To support or override any other business logic that may not be covered by using either of supported hierarchy types, you can introduce your own plug-in which is a custom Java program. More details in the subsections that follow the procedure are provided below.

To create a PSS configuration:

This procedure can be used to View, Edit, Unlock, and Delete PDF stamping services.

1. Navigate to **Administration > DCM > PDF Stamping Service** and select **File > New > PSS Configuration**.
2. Enter a unique name and select one of the values listed for the **Type** and then click **Finish**.

   The name is mandatory and is displayed in the content pane with the .xml extension when you click Finish.

   Select *Documentum (DCTM) Object Type* value for the **Type** to define the document type according to the object type hierarchy or, select *DCM DC/BA* to define the document type according to the document class and business application hierarchy.
3. Right-click the xml file created and select **Edit** to add a document type.

The resulting screen is different depending on the value selected for the **Type**. The screen displayed if the value selected is *DCTM Object Type*, provides the option **Add Document Type** whereas **Add Business Application** and **Add Document Class** are the options provided if *DCM DC/BA* is the value selected.

The **default_root** in the **Doc Type** column is always listed/present and can not be deleted when selected as can any other document type added/listed under it. The **default_root** is used to inherit values/settings if there is nothing else defined under it for the lookup hierarchy. If you do not need any watermarks, you need to remove all overlays on the default_root or on the super level. If you do not need watermarks at a certain level of a hierarchy but you have watermark configurations at a super level to cover other peer levels, you must disable all inherits of the overlay and remove all overlay configurations at that level.

Right-click options include:

- **Edit**: to create a new document type or to modify an existing document type. The xml document format of the document type is checked out whenever it is edited. The xml is checked in when the administrator saves the changes.
- **View**: to view the xml file with no checkout/checkin actions.
- **Unlock**: to cancel checkout if the xml file is inadvertently locked. The xml file gets locked if the user inadvertently exits the Edit mode or closes the browser. The xml file in such instances remains checked out and needs a cancel-checkout to restart the edit.
- **Delete**: to delete an xml file if it is not needed.

4. Click **Add Document Type** or **Add Business Application** or **Add Document Class**, depending on which is available according to the hierarchy selected, to add one or more document types.

5. Right-click the document type added and select **Edit** to define the **View** and **Export** options according to the overlays you want to define.

   Values/settings for all the overlays can be inherited or you can pick and choose which ones to inherit for.

   Click **Add** against the text, image, or PDF overlay you want to define the attributes for, if they are not being inherited.

   The **Attributes** tab determines how the overlay shall be used whereas, the **Text Overlay**, **Image Overlay**, and **Overlay Template** (for the PDF overlay) depending on the overlay you are adding for, determines what the overlay will consist of. You will need to click **Finish** to complete the process for each overlay added.

6. Right-click the **Export** tab to define what overlays can be exported. You can define the **Export** options so that they match the settings on the **View** tab or so that not all the same settings are exported.

   The View tab is used to configure the watermark applied to the PDF for viewing. The Export tab is used to configure the watermark applied to the PDF when it needs to be exported from repository to your local file system.

7. Click **OK** when you are done editing **Document Types**.
8. Optionally, select the **Override** tab to create customer customizations for PDF Stamping Services. The plug-in supports customer customizations for PDF Stamping Services. Since the configuration is hierarchy based/driven, the user does not have to explicitly fill in all the configurations if the configuration they want exists at a super level, under the **Super Type** column for example.

   Defining a plug-in on the **Override** tab provides a means for customers to implement their own customization to support a particular business application (logic). **Plug-in Implementation** defines the java implementation class of the plug-in. The value for the plug-in java class must implement the *IPssOverridePlugin* interface. The value for the **Plug-in Name** must be unique.
9. Click **Save** to accept changes against the same CURRENT version of the xml file or click **Save As New** to create a new CURRENT version of the xml file.

PSS overlays for PDF watermarks

The PSS stamp of watermark uses third party PDF APIs to add watermarks against a given PDF file. There are three types of watermark templates supported:

- PDF template

  PSS, regarding this template, also supports value population for three types of Acrobat form fields, for example: Text form field; Image form field and the DateTime form field.
- Text template
- Image template

  The supported formats for this template are: JPEG, GIF, BMP, TIFF, PNG, WMF, PostScript (Image).

During the watermark stamping, PDF security can also be applied to stamped PDF file.

Configuring PSS overlays for view and export

The PSS stamping configuration supports hierarchical configurations. Two types of hierarchies are supported:

- Documentum Object Type based hierarchy
- DCM Business Application and Document Class based hierarchy

The PSS stamping configuration also supports customizations so that various requirements of a stamping configuration can be implemented and used at customer sites.

The general cases and rules for hierarchical PSS configurations are described as follows:

- Case 1: Use settings defined in this node

  If a node level is configured for a certain action such as view; export and print, and the template (either text template, image template or PDF template) is overridden and its settings are not empty, the configuration of the template at this node level would be used for this action.

- Case 2: No watermark

  If a node level is configured for a certain action such as view; export, and print, and the template (either text template, image template or PDF template) is overridden and its settings are empty, no watermark of this type of template would be applied to objects which match this node for this action; if all 3 types of templates (text, image and PDF) are overridden and their settings are empty, no watermark at all.

- Case 3: Use settings defined in super node

  If a node level is configured for a certain action such as view; export, and print, and the template (either text template, image template or PDF template) is inherited, whether settings are empty or not, the configuration of the template at its super node level would be used for this action.

- Case 4: Use settings defined in super node

  If a node level is not configured for a certain action such as view; export, and print, the configuration at its super node level would not be used. No watermark from this node is applied as a result.

Customizing PSS overlays for PDFs viewed from DCM

When a user tries to view a controlled document, using DCM, that has an existing PDF rendition, regardless of the original format of the controlled document, the watermarked PDF is displayed within Acrobat only if the watermark has been configured for view. If the watermark is not configured for view, the behavior is the same as the default behavior of Webtop or DCM without PSS.

Customizing PSS overlays for PDFs exported from DCM

When a user tries to export a controlled document, using DCM, that has an existing PDF rendition, regardless of the original format of the controlled document, the watermarked PDF is exported only if the watermark has been configured for export. If the watermark is not configured for export, the content in its original format is exported providing the default behavior as Webtop or DCM without PSS.

Attribute descriptions

The attributes for the different PSS configuration screens are described in this section.

Document types

PSS configurations are defined according to a document type. A document type is added based on the hierarchy displayed, the DCTM Object Type hierarchy or the DCM DC/BA hierarchy. The default_root which is always listed and available can not be deleted. All **Document Types** added are listed below the default_root. You need to select a **Doc Type** in order to **Edit** it or to **Delete** it.

Add Document Type is displayed when you create or edit a PSS configuration file, an xml file, with the value for **Type** set to *DCTM Object Type*.

Add Business Application and **Add Document Class** are displayed when you create or edit a PSS configuration file, an xml file, with the value for **Type** set to *DCM DC/BA*.

Select **Save** or **Save As New** only when you are done editing both tabs for **Document Types** and **Overrides**. Click **Save** to accept changes against the same CURRENT version of the xml file or click **Save As New** to create a new CURRENT version of the xml file. **Exit** is used to abort the operation and ignore changes.

Editing or deleting a document type

The **DocType** screen is displayed displaying the **View** tab and the **Export** tab when **Edit** is selected for the selected **Doc Type**. The **View** screen is used to **Add** and configure the desired overlays and if necessary to view and edit the attributes of the text, image, and PDF overlays defined.

Any Doc Type added/listed below the default_root that is selected can be deleted if necessary. Only the default_root can not be deleted.

Configuring an override

The Override tab provides a means, using a plug-in, to use a configuration file other than the default file (pss_stamper_config.xml), and use its settings to override the default settings.

The override settings are added to the configuration file if a value is entered for the Plug-in Implementation, regardless of the value provided for the Plug-in Name. The override settings are removed from the configuration file if the Plug-in Implementation text box is empty regardless of the value entered for the Plug-in Name. Additional details and the value for the Plug-in Implementation are contained in the procedure at the top of this chapter.

Stamper actions and attributes for view and export

All stamper actions for each of the various overlays are configured from the **View** and the **Export** tabs displayed when you select and **Edit** a **Doc Type** from the **Document Types** screen.

Although the attributes for both View and Export are the same, their settings do not have to be the same. A user can export the PDF document to their local drive or elsewhere with the same PDF Security settings, PDF Properties, and overlays based on the settings of the Export tab. A user who decides/needs to export a copy of the PDF document to their local drive for example, will obtain a copy without the overlays, security settings, and property settings if no entries are provided for the Export tab. The PDF document in the repository when opened contains all the watermarks, security, and property settings as defined according to the View Tab. The copy in the repository containing the watermarks can be exported with or without the watermarks, security settings, and properties settings depending on the entries defined according to the Export tab. All attribute settings can be inherited or only specific settings can be inherited from the Super Type under the Document Types added/listed. Inheritance of an attribute setting searches the Super Types listed, if there any listed below the default_root, until the default_root is reached at the top of the hierarchy. There are no checkboxes for inheritance when the default-root is selected for editing. Any document type added/listed below the default_root however displayes the checkboxes for inheritance.

Administrators define the attribute settings on the Export tab such that a user who exports the PDF document obtains it according to the settings defined on the Export tab.

Attributes for the security settings are exposed when you click **PDF Security** on either tab for **View** and **Export**.

Attributes for the property settings are exposed when you click **PDF Properties** on either tab for **View** and **Export**.

Attributes for adding the various overlays are always exposed.

Overlay editing of attributes for text, image, and PDF

The screen displayed for text, image, and PDF overlays, when you click **Add** in the **Text Overlay List**, the **Image Overlay List**, and the **PDF Overlay List** under the **View** tab or the **Export** tab, contains the attribute settings used to configure watermarks.

The following list defines the attributes on the tabs displayed when you **Add** an overlay:

- This attribute is defined on the **Create** tab for all overlays added/created:
  - **Name**

    Each or any overlay added/created must have a unique name. This attribute is mandatory, on the **Create** tab, regardless of the overlay added.
- These attributes are defined on the **Attributes** tab for all overlays added/created:
  - **Underlay**

    When selected, the PDF document is applied on top of the overlay. If deselected, the overlay is applied on top of the PDF document.
  - **Odd/Even Overlay**

    The value selected for this attribute determines whether the overlay is applied to odd pages, even pages, or all pages of the PDF document.
  - **Rotate Degree**

    The value or number typed for this attribute determines the angle at which the watermark is applied to the PDF document.
  - **Position X(Pixels)**

    The value entered for this attribute in combination with the value provided for the "Y" position determines where the watermark is to be placed on the page.
  - **Position Y(Pixels)**

    The value entered for this attribute in combination with the value provided for the "X" position determines where the watermark is to be placed on the page.

- These attributes are defined on the **Text Overlay** tab for text overlays only:
  - **Font Name**

    The value selected for this attribute determines what font the watermark is to use, Courier or Helvetica for example.
  - **Encoding**

    The options/values that populate the list box for this attribute are determined based on the Font Name selected. The default value displayed is typically accepted.
  - **Font Size**

    The value can be typed and changed from the default value, 8.0, to any integer between 8.0 and 72.0.
  - **Font Color**

    The default value, black, can be changed to the desired color from the color pad.
  - **Text Source**

    The content that populates the text overlay is obtained and retrieved from one of the specified sources based on the selected radio button.

    Object Attribute

    The content is retrieved from one attribute of the specified document for the watermark.

    DQL

    The content for the text form is retrieved from the DQL query results based on the specified attribute name for the Attribute field. The value provided for Delimiter field separates the results returned in the DQL query if the specified Attribute is a repeating attribute.

    Docbase Object(file)

    The content for the text form is retrieved from a file stored in the repository.

    Static

    The watermark is hard coded based on the text entered.

- These attributes are defined on the **Image Overlay** tab for image overlays only:
  - **Image Source**

    The content that populates the image overlay is obtained and retrieved from one of the specified sources based on the selected radio button.

    Object Attribute

    The image is retrieved from one attribute of the specified document for the watermark.

    DQL

    The image is retrieved from the DQL query results based on the specified attribute name for the Attribute field. The value provided for Delimiter field separates the results returned in the DQL query if the specified Attribute is a repeating attribute.

    Docbase Object(file)

    The image is retrieved from a file stored in the repository.
- These attributes are defined on the **Overlay Template** tab for PDF overlays only:
  - **Template Source**

    The content that populates the PDF overlay is obtained and retrieved from one of the specified sources based on the selected radio button.

    Object Attribute

    The template is retrieved from one attribute of the specified document for the watermark.

    DQL

    The template is retrieved from the DQL query results based on the specified attribute name for the Attribute field. The value provided for Delimiter field separates the results returned in the DQL query if the specified Attribute is a repeating attribute.

    Docbase Object(file)

    The template is retrieved from a file stored in the repository.

- These attributes are defined on the **PDF Forms** tab for PDF overlays only, though the attributes described here exposed only when you **Add** a form using a **Text Form**, **Image Form**, or **Date Form** as the intended source for the watermark:
  - **Text Form** attributes:
    - **Name**

      The value is mandatory and must be unique among the Text Forms created if PDF Forms are utilized.
    - **Form Name**

      The value typed for the Name on the Create tab when the Text Form is selected.
    - **Form Type**

      This attribute is read-only to identify the form being added.
    - **Font Name**

      The value selected for this attribute determines what font the watermark is to use, Courier or Helvetica for example.
    - **Encoding**

      The options/values that populate the list box for this attribute are determined based on the Font Name selected. The default value displayed is typically accepted.
    - **Font Size**

      The value can be typed and changed from the default value, 8.0, to any integer between 8.0 and 72.0.
    - **Font Color**

      The default value, black, can be changed to the desired color from the color pad.
    - **Source Types**

      The content that populates the text form is obtained and retrieved from one of the specified sources based on the selected radio button.

      Object Attribute

      The content is retrieved from one attribute of the specified document for the watermark.

      DQL

      The content for the text form is retrieved from the DQL query results based on the specified attribute name for the Attribute field. The value provided for Delimiter field separates the results returned in the DQL query if the specified Attribute is a repeating attribute.

      Docbase Object(file)

      The content for the text form is retrieved from a file stored in the repository.

      Static

      The watermark is hard coded based on the text entered.
  - **Image Form** attributes:
    - **Form Name**

      The value is mandatory and must be unique among the Image Forms created

Chapter 13

Reports

This section describes the following:

- DCM reports, page 143
- Using the reports tool, page 144
- Viewing properties, versions, relationships, renditions, or locations of a report, page 145
- Exporting a report, page 145
- Reporting on workflow objects, page 146

DCM reports

DCM provides a number of different reports. You can run and view these reports if your role is one of the following:

- business application owner
- document class owner
- functional area supervisor
- author
- signatory

DCM allows reporting against the following items:

- Audit Trail

  Displays the audit trail for any specified event.

- Signoff Status

  Shows the signoff status by document class, document, user and time period. You can choose to filters this report for: All, Approved, Pending, Rejected

- Average Signoff Time

  Shows the number of signoffs and average signoff time for a document class, document, user and time period.

- Controlled Documents

  Lists controlled documents by Business Application, Document Class, Specific Document, or Specific User.
- Documents Not Accessed

  Lists documents that have not been accessed within a specified timeframe by document class, document, and user. You can filter this report by state type.
- Promotion Status

  Lists the promotion status of documents in a lifecycle by business application, document class, specific document, or specific user.
- TBR Status

  Displays the To-Be-Read status by document class, document, user and time period. You can filter this report by Pending and Confirmed.

Using the reports tool

The **Compliance > Reports** menu option allows you to produce several different kinds of reports.

To create a report using the Reports tool:

Note: You can also use this procedure to **Export** (Save) a report.

1. Select **Compliance > Reports** and click one of the following options according to the report you want to generate:
   - **Audit Trail**
   - **Signoff Status**
   - **Average Signoff Time**
   - **Controlled Documents**
   - **Documents Not Accessed**
   - **Promotion Status**
   - **TBR Status**
2. Click the **Report** button to obtain a report against the default settings or adjust the filter settings first and then click the **Report** button. You can pick and choose which filters to select from to customize and narrow the results returned in the lower half of the screen.
3. Optionally, you can click **Export** to save a copy of the report when necessary.

   A message appears in the message bar at the bottom of the screen confirming successful completion of the applicable report. For example: **Audit trail**

report exported successfully in /System/Applications/DcmConfig/DCM Reports/Audit Trail. All exported reports are saved in the same path **System/Applications/DcmConfig/DCM Reports/**.

Viewing properties, versions, relationships, renditions, or locations of a report

You can only view a report if it was exported according to Using the reports tool, page 144.

To view a report saved in the repository:

1. Navigate to the following location under Cabinets, **System/Applications/DcmConfig/DCM Reports/** and select the folder of the applicable report (Audit Trail, Signoff Status, Average Signoff Time, Controlled Documents, Documents Not Accessed, Promotion Status, TBR Status) listed under **DCM Reports**.
2. Click the title of the report under the **Name** column in the content pane, if there are any reports listed, to view the contents of the report.
3. Optionally, you can right-click the title of the report and select **View** to view its **Properties**, **Versions**, **Relationships**, **Renditions**, or **Locations**.

Exporting a report

Use this procedure to obtain a copy of a report saved, in the repository, according to the procedure in Using the reports tool, page 144. This procedure is used to export (take) a copy of the report from the repository that was exported (saved) when the report was generated.

To obtain a copy of a report from the repository:

1. Navigate to the following location **System/Applications/DcmConfig/DCM Reports/** and select the folder of the applicable report (Audit Trail, Signoff Status, Average Signoff Time, Controlled Documents, Documents Not Accessed, Promotion Status, TBR Status) listed under **DCM Reports**.
2. Select the report in the content pane you want to take a copy of and click **File > Export**.
3. Navigate to the location where you want to save the exported copy using the **Select Folders** browser displayed and click **Ok** to complete process.

Reporting on workflow objects

The workflow reporting feature can be used to see and identify workflows and the document(s) or task(s) being routed.

Workflow reporting

Workflow reports have the following primary filter options, Users, Documents, and WF Templates, that can be used in any combination to narrow and customize the results. The report can be further filtered against enabled and disabled workflows and so that results include only overdue items.

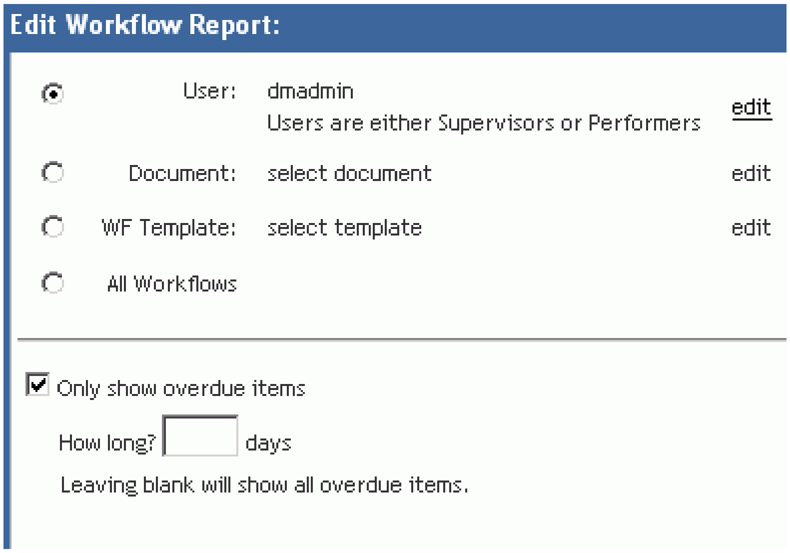
To generate a workflow report:

1. Select **Tools > Workflow > Workflow Reporting**.
2. Click **Edit Workflow Report**.
3. Select the radio button for each filter option you want to report against and click **Edit** to add the items you want filtered. Only enabled workflows are reported if the radio button for All Workflows is not selected. Select it if you want both enabled and disabled workflows reported. Select the checkbox as well if you want only overdue items reported. All items overdue under the number of days you specify are returned.

   Items added when you are done editing are displayed next to the filter option(s) used.

   Only one item per filter option can be added when you edit. Any item you have already added is cleared and replaced with the new item if you return to edit.

Figure 32. Edit workflow report screen



4. Click **OK** to generate the report.

Viewing details and performing various workflow/task actions

When you view workflow details you can also perform various actions from the **Summary** tab using its action buttons. Although this procedure can be used to view workflow details, it can also be used to change the performer for a task assignment, delegate a task, save the workflow report, halt and resume the workflow or a particular task(s) managed by the workflow, and when necessary, terminate the workflow.

View Details displays information about workflow tasks and attached files. The display filters provided enable you to refine the information to return broader or more granular levels of detail.

To view workflow details and if necessary perform a workflow or task related action:

1. Select **Tools > Workflow > Workflow Reporting**.
2. Select a workflow displayed in the content pane or generate a workflow report and then select a workflow among the results returned.
3. Select **Tools > Workflow > View Details** and click either **Summary**, **Audit**, or **Map** depending on which set of details you want to see. All three tabs however are

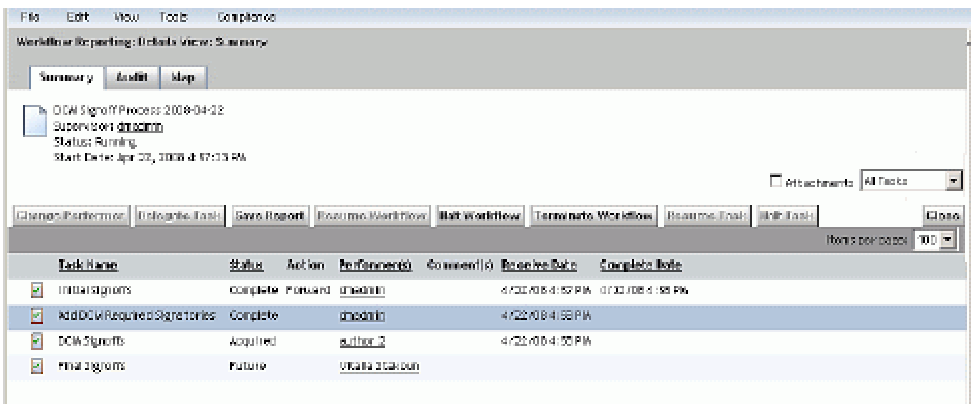
displayed, regardless of the one you click. You can move back and forth from one tab to the other to see details in each.

The **Summary** tab lists/displays all the tasks in the workflow and provides buttons to change performers (change users or groups assigned to the task), save the report, perform halt and resume actions against the workflow or its tasks, and to terminate the workflow if necessary.

The **Audit** tab displays audit details for workflows whose audit event flags were set during design-time in Workflow Manager, and documents whose audit flags were set in Documentum Administrator. You can set audit flags on workflows and documents to track workflows events. For a complete list of available audit events and information about setting the audit flags, see the documentation for Workflow Manager (for workflows) and Documentum Administrator (for documents).

Attachments for each task can be listed when you select the checkbox for **Attachments**. You can also filter against **All Tasks**, **Current Tasks**, or **Overdue Tasks**.

Figure 33. View details for a selected workflow



4. Click **Close** when you are done viewing or performing the desired action.

Chapter 14

Repositories

This chapter includes:

- Log into a repository, page 149
- Navigate a repository, page 152
- Locate an item in a selection dialog box, page 155
- Set your preferences, page 156
- Open an additional repository window, page 158
- Drag-and-drop, page 158
- Right-click, page 159
- View messages, page 159
- View the status of background operations, page 159
- Work with repository documents offline through My Documentum, page 159
- View product information, page 160

Log into a repository

To log into a repository, you need:

- DCM URL
- Repository name
- Your username and password for the repository
- DCM Network location (if applicable)
- Microsoft Windows NT domain name (if applicable)
- Language (if applicable)

To log into a repository:

1. In your web browser, type the DCM URL.

If you use either saved credentials or an automated authentication, DCM automatically logs you in. Skip the rest of this procedure.

2. If the **Login** page appears, type your login name and password for the repository. Login names and passwords are case-sensitive.
3. In the **Repository** list, select the repository.
4. In the **Location** list (if available), select the location on your organization network from which you are accessing DCM.

   This allows you to access content from the nearest storage area in the network. Depending on your organization's setup, this location might be a fixed value.
5. To save credentials so that you log in automatically the next time you run DCM from this computer, select **Remember my credentials for next time**.

   Tip: Once you are logged in, you can view or delete your saved credentials through your preferences.
6. To enter a Microsoft Windows NT domain name, click **More Options** and enter the domain.
7. To select language, click **More Options** and select the language.
8. To use accessibility features, click **More Options** and check **Additional Accessibility Options**.

   The accessibility mode provides linear navigation; tab navigation; lists instead of menus; and additional descriptive text.
9. To change your password, complete these steps:

   Note: If your organization uses Lightweight Directory Access Protocol (LDAP), you cannot change your password from the login page. Ask your system administrator how you can change your password.

   a. Click **More Options**.

   b. Click **Change Password**.

   c. Type your current password and new password.

   d. Click **Apply**.
10. Click **Login**.

See also:

- Log in as an express user, page 151
- Log into another repository, page 151
- Log out of all repositories, page 151
- Set your favorite repositories, page 152

Log in as an express user

If your application includes the **express user** role, and if you have been assigned that role, then when you log in you are given limited access to repository functionality.

If you have been assigned the express user role, you log in with the usual procedure for logging in, as described in Log into a repository, page 149

Log into another repository

To log into another repository:

1. If the repository is listed in the navigation pane, select the repository and skip to Step 3.
2. If the repository is not listed in the navigation pane, do these:
   a. Select **Add Repository**.
   b. If the repository is listed on the **Add a Repository** page, select the repository and click **OK**. Skip to Step 3.
   c. If the repository is not listed on the **Add a Repository** page, click **more repositories**.
   d. On the **Connection Brokers** page, enter the name of a connection broker and click **Add**. A connection broker determines the repositories available to log into. Ask your administrator for the names of connection brokers your organization uses.
   e. Click **OK**.
   f. On the **Add a Repository** page, select the repository and click **OK**.
3. Type your username and password for the repository.
4. Click **Login**.

Log out of all repositories

To log out, select **File > Logout**.

Set your favorite repositories

To set your favorite repositories:

1. Select **Tools > Preferences**.
2. Select the **Repositories** tab.
3. In the **Select a Repository** list, select the repository to add and click the add arrow.
4. To remove a repository from your **Favorite Repositories** list, select the repository and click the remove arrow.
5. To change the order in which repositories appear, select a repository in the **Favorite Repositories** list and click the up or down arrow.
6. Click **OK**.

Navigate a repository

A repository is a virtual storehouse for your organization's content. Your organization might use multiple repositories. Each repository is comprised of nodes that give access to the repository's content and functions. For example, the My Home Cabinet node contains your personal files and folders. DCM displays the repository's nodes in the navigation pane.

To navigate the repository, do any of these. Try each to see how the actions differ:

- Click a node in the navigation pane.
- Double-click a node in the navigation pane.
- Click the plus sign adjacent to the node in the navigation pane.
- Click a location in the content pane.
- Click a location in the navigation path at the top of the content pane.

To select an item in the content pane, click the item.

To select multiple items that are adjacent to each other in the content pane, click the first item and then hold down **Shift** and click the last item.

To select multiple items in the content pane that are not adjacent to each other, click each item while hold down **Ctrl**.

To select all the items in the content pane, right-click and choose **Select All**.

To deselect a single selected item, click the item.

To deselect an item in a group of selected items, hold down **Ctrl** and click the item.

To change how items are displayed in the content pane, do any of these:

- To display only those items that begin with a certain character string, type the character string in the text field at the top of the content pane and click .

  To return to the original list, click .
- To filter the list to display only certain types of items, select the appropriate filter in the drop-down menu above the list.
- To display or hide thumbnails, click .
- To sort a column, click the column heading. To reverse the sort order, click the heading a second time.

  Tip: To sort by lock owner, click .

  To change the columns that appear, see Select the columns that appear in lists, page 153.

See also:

Navigate categories, page 154

Select the columns that appear in lists

This topic includes several different procedures for selecting the columns that appear in a list.

To select the columns that appear in the current list:

1. Navigate to the list.
2. In the column header select .
3. To add a column, do these:
   a. In the **Select object type** list, select the type of item that contains the property to display.
   b. In the **Select attributes to display** list, select the property to be displayed in a column.
   c. Click the add arrow.
   d. Repeat Step a through Step c for as many properties as you want to add.
4. To change the order in which columns appear, select a property in the **Selected attributes to display as column** and click the up or down arrow.
5. To remove a property that is displayed as a column, select the property in the **Selected attributes to display as column** and click the remove arrow.

6. When you are done adding and removing properties, click **OK**.

To select the columns that appear in a particular location:

1. Select **Tools > Preferences**.
2. Select the **Columns** tab.
3. Scroll to the appropriate view and click **Edit**.
4. To add a column, do these:
   a. In the **Select object type** list, select the type of item that contains the property to display.
   b. In the **Select attributes to display** list, select the property.
   c. Click the add arrow.
   d. Repeat Step a through Step c for each property to add.
5. To change the order in which columns appear, select a property in the **Selected attributes to display as column** list and click the up or down arrow.
6. To remove a property from display, select the property in the **Selected attributes to display as column** list and click the remove arrow.
7. Click **OK** twice.

To remove a column from a list:

1. Navigate to the list from which to remove a column.
2. Right-click the column header and select **Remove Column**.

Navigate categories

Categories provide alternate ways to organize files from the way they are organized in cabinets. Categories are available if DCM is integrated with EMC Documentum CI Server and if the repository has been enabled for category navigation. Ask your administrator if and how your organization uses categories.

To navigate categories, click **Categories** and use the standard procedures for navigating through the hierarchy structure.

If your organization uses categories, then:

- You might be able to submit files for categorization.
- When you create a new document from a template, the template might specify that the new document is linked to one or more categories.

To submit a file for categorization:

1. Navigate to and select the file to be submitted.

   Tip: You can perform this procedure on multiple files by selecting multiple files.

2. Select **Tools > Submit for Categorization**.

3. At the confirmation prompt, do one of these:
   - If submitting one file, click **OK**.
   - If submitting multiple files, confirm submission for each file separately by clicking **Next**. For the last file, click **Finish**.

     Tip: To confirm submission for all remaining files at once, click **Finish**.

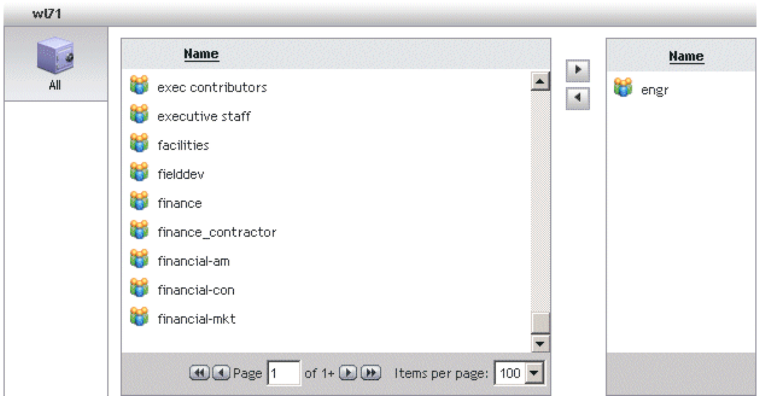
Locate an item in a selection dialog box

To locate an item in a selection dialog box, use any of these actions:

- To open a directory location, click the location.
- To return to a previous location, click the location in the navigation path above the list.
- To look in a different repository, select the repository in the **Repository** drop-down list, if available.
- To display only those items that begin with a certain character string, type the character string in the text box above the list and press Enter.
- To narrow the types of items displayed, select a different filter in the drop-down menu above the list.

To select an item, click it. If the selection dialog box includes two list boxes, as shown in Figure 34, page 156, then you must also click the arrow to move your choice to the second list box. You can move multiple items to the second list box.

Figure 34. Selection dialog box with two list boxes



Set your preferences

Preferences determine your choices for how DCM displays repositories and performs certain actions.

Most preference settings are stored in the repository so that if you log in from a different machine, those settings still apply.

Some preference settings, such as login settings, are stored in a cookie on your local machine. Those settings are used only on that machine.

This topic describes general preferences. To set preferences for a specific functionality within DCM, see the topic that covers that functionality.

To set your general preferences:

1. Select **Tools > Preferences**.
2. Select the **General** tab and complete the fields in Table 10, page 156.

Table 10. General preferences

Field	Description
Section to Start In	The page that opens when you log in.
Checkout Location	The location of your checkout directory. Your checkout directory is the location on your computer where DCM copies files when you check them out from the repository.

Field	Description
Saved Credentials	Your usernames and passwords for logging in automatically to certain repositories.
Theme	The set of colors, patterns and fonts used in your display.
Drag and Drop	This enables you to drag-and-drop items with your mouse. This option requires that you restart your browser for the change to take affect.
Autocomplete	If the autocomplete option is enabled, then when you begin typing text in a field, autocomplete displays suggestions for completing the field. To accept a suggestion, click it. Autocomplete displays suggestions from a record of your previously entered words and phrases, and in some case from your organization's list of common text that all users might enter. To clear the cache of your previously entered words and phrases, click **Reset**.
Hidden Objects	In file lists, this displays items marked as hidden.
Document Links	If available, select this option to let DCM scan each imported or checked-in document for any linked documents. If linked documents are found, they are imported or checked in, and the original document becomes a virtual document. The linked documents become descendants.
Accessibility Options	The accessibility mode provides linear navigation; tab navigation; lists instead of menus; and additional descriptive text.

3. To save your changes, click **OK**.

To set your formats preferences:

This topic describes formats preferences.

1. Select **Tools > Preferences**.
2. Select the **Formats** tab and complete the fields in Table 11, page 158.
3. Click **Add**.

You can add custom viewing and editing applications and set your formats preferences for viewing and editing.

Table 11. Formats preferences

Field	Description
Choose object type	Select the object type from the dropdown list.
Primary format	Select the primary format of the object you have selected.
Format for viewing	Select the format for viewing. By default, it may appear based on your primary format
Would you like this content to appear in the web browser	Select the option.
Application for viewing	Select the application for viewing the object from the dropdown list or use the Select Application link to browse and select the application for viewing.
Application for editing	Select the application for editing the object from the dropdown list or use the Select Application link to browse and select the application for editing.

4. To save your changes, click **OK**.

Open an additional repository window

To open an additional window that displays the repository, select **Tools > New Window**.

Drag-and-drop

To use drag-and-drop, you must first enable the drag-and-drop option in your general preferences, as described in Set your preferences, page 156.

To perform an action with drag-and-drop:

1. Navigate to and select the items to drag-and-drop.
2. Click the items to drag and continue to hold down the mouse button. While continuing to holding down the mouse button, drag the items to the drop target and then release the mouse button.

Tip: If you are dragging the items to a target that is not currently displayed, you must first navigate to the target by doing one of these:

- Navigate to the target using the other DCM pane.
- Navigate to the target by opening a new window. You can open a new window by selecting **Tools > New Window**.

Right-click

To perform an action on an item you can right-click the item and select the action from the shortcut menu.

View messages

Success and error messages are displayed in the status bar at the bottom of the page. If a message is longer than the status bar's display area, you can view the full message by selecting **Tools > View Messages**.

View the status of background operations

To display the status of background operations, select **Tools > Job Status**.

A background operation is an operation that can perform while allowing you to do other work. For example, if you check in a file and are given the option to first store the content on your local network before storing it globally, then the global operation will occur in the background.

Work with repository documents offline through My Documentum

My Documentum is a client application that lets you work on your documents in the offline mode when you are not logged into DCM. My Documentum must be installed on you local machine in order to be used. If you are not certain whether it is installed, ask your system administrator.

My Documentum keeps selected repository files available on your machine so that you can still work with the files even if you are disconnected from DCM. When you again log in, My Documentum synchronizes the documents on your machine with those in the repository. You can perform synchronization manually or can set synchronization to occur automatically at a prescribed time or event.

If installed on your machine, you access My Documentum through Windows Explorer or through Microsoft Office applications. The folder hierarchy within the My Documentum folder matches the folder hierarchy used in the repository.

You can search, edit, save, and create documents in the My Documentum folder. When you next log in and synchronize, your changes are uploaded to the repository. For more information on My Documentum, see the My Documentum help system or the *EMC Documentum My Documentum User Guide*.

View product information

To view the version number and other product information, select **File > About DCM**.

The product information includes version of Web Development Kit (WDK), upon which DCM is built. WDK is the EMC Documentum framework used to build applications that access repositories by using web browsers.

Chapter 15

Files and Folders

This chapter includes:

- Create a file, page 161
- Create a folder, page 162
- Create a cabinet, page 163
- Set properties, page 163
- Check out and edit files, page 164
- View a file in read-only mode, page 171
- Change the format associated with a type of file, page 171
- Import files to the repository, page 172
- Export files from the repository, page 174
- Delete an item from the repository, page 175
- Move an item to a new location in the repository, page 175
- Copy an item to a new location in the repository, page 176
- View your clipboard, page 176
- Links, page 176
- Subscriptions, page 180
- Receive notification when a file is read or changed, page 180
- Export the information displayed in a list, page 181

Create a file

To create a new file:

1. Navigate to the folder in which to create the new file.
2. Select **File > New > Document**.

3. If a selection dialog box appears, select a template for the new file and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

   If the repository's Templates cabinet does not contain a template for a custom type, then you cannot create a file of that type now. Instead, you can create a file on your local computer, import it into the repository, and then assign it the custom type.

4. In the **Create** tab, do these:

   a. Type the name of the new file.

   b. To apply a lifecycle to the file, click **Apply Lifecycle**, then select the lifecycle. Then, if the option is available, select the lifecycle state.

   c. Enter additional information in the **Create** tab as needed.

5. In the **Info** tab, set properties as described in Table 12, page 164 in the topic Set properties, page 163.

6. If other tabs appear, enter information in those tabs as appropriate. For information on the functionality affected by those tabs, see the topic that covers that functionality.

7. Click **Finish**.

Create a folder

To create a new folder:

1. Navigate to the location in which to create the new folder.

2. Select **File > New > Folder**.

3. In the **Create** tab, enter the name and the type of the new folder. Enter additional information as needed.

4. In the **Info** tab, set properties as described in Table 12, page 164 in the topic Set properties, page 163.

5. In the **Permissions** tab, specify the access that specific users and groups have to the folder. For instructions, see Edit permissions, page 342.

6. If other tabs appear, set information in those tabs as appropriate. For information on the functionality affected by those tabs, see the topic that covers that functionality.

7. Click **Finish**.

Create a cabinet

Cabinets display the highest level of organization in a repository. Cabinets contain folders and files.

To create a new cabinet:

1. Navigate to the repository in which to create the new cabinet.
2. Select the **Cabinets** node
3. Select **File > New > Cabinet**.
4. In the **Create** tab, type the name of the new cabinet and type of cabinet. Enter additional information as needed.
5. In the **Info** tab, set properties as described in Table 12, page 164 in the topic Set properties, page 163.
6. In the **Permissions** tab, specify the access that users and groups have to the cabinet. For instructions, see Edit permissions, page 342.
7. If other tabs appear, set information as appropriate. For information on the functionality affected by those tabs, see the topic that covers that functionality.
8. Click **Finish**.

Set properties

To set properties for an item:

1. Navigate to and select an item.

   Tip: To select multiple items at once, click each item while holding down **Ctrl**.
2. Select **View > Properties > Info**.

   Tip: If the icon appears next to an item, you can click the icon to display the item's properties.
3. In each tab, set properties as described in Table 12, page 164. If your product includes tabs not covered in this table, search this documentation for the topics that describe the functions governed by those tabs.

   If you are setting properties for multiple items at once, then the properties dialog box displays only those properties that are common to all the items you selected.
4. To save changes, click **OK**.

Table 12. Common tabs in the Properties dialog box

Tab	Description
Info tab	To edit a property, do any of these that apply: • Type a new value. • Click **Edit** or **Select** and select the value. • Select the property's checkbox. • Click the property's icon and select the value. • If available, click **See CIS Values** to view suggested property values. To display additional properties, select **Show More**. To display all the properties, select **Show All Properties**.
Permissions tab	Displays the access that different users have to the item. To change permissions, see Edit permissions, page 342.
History tab	Displays a list of events that have occurred to the item, such as checkout, checkin, and promote.

Check out and edit files

This section includes these:

- Overview of check out and edit, page 164
- Check out a file, page 165
- Check in a file, page 166
- Cancel checkout of a file, page 170
- View currently and recently checked-out files, page 170

Overview of check out and edit

To edit files, you check them out to your local computer. When you check out a file, DCM locks the file in the repository so that no one else can edit it except you. Other users can view the file, but they cannot make changes to it. If you check out a file that is linked to multiple locations in the repository, the file is locked in all those locations.

When you check out a file, DCM either copies or streams the file to your computer, depending on the file's editing application.

If the file uses an external editing application, DCM downloads the file to your checkout directory. You can open and close the file directly from your checkout directory. Your modifications are not saved into the repository until you check in the file.

By default, the checkout directory is these, depending on the operating system:

- Windows

  //Documentum/Checkout
- Macintosh

  Root:Users:*user_name*:Documentum:Checkout

If the file uses an internal editing application, then when you check out the file, DCM streams the file directly to the appropriate editing application. The file is not copied to your computer. When you save the file in the editing application, the file is saved directly to the repository. However, the file remains checked out. To unlock the file, you must check the file back in.

To check out a file, use either the Edit command or the Check Out command. The Edit command immediately opens the file upon checkout.

DCM displays a key icon next to the files that you currently have checked out. DCM displays a lock icon next to the files that other users currently have checked out.

To view a list of the files that you currently have checked out, click **My Files** and then click the key icon in the column headings.

You can open, edit, and close the file directly from your checkout directory, whether or not you are connected to the repository.

When a file is downloaded to your checkout directory, the file has the same name as it has in the repository, unless a naming conflict arises. A conflict arises if another file with that name already exists in checkout directory. In that case, DCM appends a number to the name of the newly downloaded file. When the file is checked back in, it keeps its original filename and the appended number is dropped.

Check out a file

To check out a file:

1. Navigate to the file in the repository and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.

2. Do one of these:
   - To check out a file without opening it, select **File > Check Out**.
   - To check out a file and automatically open it, select **File > Edit**.

     Tip: You can also check out and open the file by double-clicking it.

3. If prompted to enter additional information, enter the information, and then do one of these:
   - If checking out one file, click **OK**.
   - If checking out multiple files, enter information for each file separately by clicking **Next**. For the last file, click **Finish**.

     Tip: To apply entries for all remaining files at once, click **Finish**.

   When checkout completes, the file is locked in the repository and copied to your local checkout directory. You can open the file directly from your checkout directory.

Check in a file

When a file is versioned upon checkin, its renditions, including any thumbnail renditions, are not maintained with the new version of the file. The renditions remain with the previous version. However, depending on your setup, a PDF rendition request is automatically submitted if you check in your file as the same version and a PDF rendition already exists.

When a file is versioned upon checkin, its relationship to any parent document is not maintained, unless the parent document is checked in as a new version as well.

To check in a file:

1. Navigate to the file in the repository and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.
2. Select **File > Check In**.
3. If DCM cannot locate the file on your computer and prompts you for the location, browse to locate the file on your computer.
4. If prompted for checkin information, enter the appropriate information. Checkin information varies depending on your organization's setup. For an explanation of common checkin fields, see Checkin information, page 167.
5. Do one of these:
   - If checking in one file, click **OK**.
   - If checking in multiple files, enter information for each file separately by clicking **Next**. After the last file, click **Finish**.

     Tip: To apply information to all remaining files at once, click **Finish**.

Checkin information

See Table 13, page 167 for an explanation of common checkin fields. Some of the fields may not appear.

Table 13. Checkin information

Field	Description
Save as	Sets the version number. Selecting the same version number overwrites the original file with the updated one. For more information, see Versions, page 168.
Version label	Lets you label the updated version.
Description	Lets you write an optional description of the file.
Format	Defines the type of file.
Lifecycle ID	Assigns a lifecycle to the file.
Check for links to other Microsoft documents and check in linked documents	If available, select this option to have DCM scan the document for linked documents. If linked documents are found, they are checked in as descendants of the original document.
Upload options	Determines how quickly the new content is available to other users and whether you can use DCM while the checkin occurs. **Note:** If you used drag-and-drop you are not given this option. Select one of these: • **Send for immediate global access**: Updates the repository immediately for all your organization's users. While this occurs, you cannot perform other actions in DCM. • **Send first for local access**: Updates the repository immediately for the users in your geographic area, but DCM takes more time to update the repository for all users. This allows you to continue using DCM while the update occurs.

Field		Description
		Note: If checking in multiple files using the **Next** button, this option appears only for the first file. The choice you make automatically applies to all remaining files.
Show Options	Retain Lock	Saves the updated file to the repository but keeps the file checked out in your name.
	Make this the current version	Makes the updated file the current version. For more information, see Versions, page 168.
	Keep a local copy after checkin	Retains a copy of the file on your local computer. But you no longer have the file checked out, and any changes you make to the local copy have no effect on the file in the repository.
	Subscribe to this file	The file is linked to your Subscriptions.
	Check in from file	Replaces the repository file with a file you choose.

Versions

A version is a copy of a file at a particular time the file was checked into the repository. A new version can be created each time the file is checked in. Versions lets you keep track of changes to a file.

When you create or import a new file into the repository, it receives a version number of 1.0.

When you check in a file, you can decide whether to create a new version of the file or overwrite the existing version. (You must have adequate permissions on the file to be given these choices.)

- Creating a new version gives the file a higher version number than it had when you checked it out and also leaves a copy of the previous version in the repository.
- Overwriting the existing version keeps the same version number on the file as the previous version and does not save a copy of the previous version.

Depending on your configuration, you might be able to select whether to increase the version number by a whole number or by just a decimal point (that is, by a tenth).

Increasing the version number by a whole number is considered a *major revision*; increasing by a decimal point is a *minor revision*. For example, if you check out version 1.0 of a file and check it in as a minor revision, the file is stored as version 1.1. If you repeat this process, the file is next stored as version 1.2. If you then decide to check out the file and then check it in as a major revision, the file's version number jumps from 1.2 to 2.0.

The most recently checked-in file is marked CURRENT. File lists always display the current versions of files, unless you select to display all versions.

To display all the versions of a file:

1. Navigate to the file and select it.
2. Select **View > Versions**.

To display all the versions of all the files in a list, select **Show All Objects and Versions** in the drop-down filter above the list.

You can work with an older version of a file using the same procedures you would use for working with any file in the repository.

If you edit an earlier version of the file, then when you check in the edited file, you are given these options:

- You can check in the older version of the file as the *new, current* version. If you select this option, DCM assigns the file a version number higher than the file's previous current version.
- You can check in the older version of the file as a *branched* version. This increments the older file by a new decimal-appended number. The incremented version becomes the current version in a new branch of version numbers. For example, if a user checks out version 5.0 of a document, edits it, and then checks it back in as a major version, the version number becomes 6.0. Version 6.0 is now the current version of the document. If another user then checks out and edits version 5.0, which is no longer the current version, then when the user checks it back in, DCM creates a new branch of the document, which starts with version 5.0.1.

Replace a repository file with a different file

To replace a repository file with a different file:

1. Check out the repository file. For instructions, see Check out a file, page 165.
2. Select the checked-out file in the repository and select **File > Check In**.

   Tip: Instead of using the File menu, you can drag-and-drop the replacement file from your local computer to the checked-out file in the repository. If you use drag-and-drop, you are not given the option to update content locally prior to updating globally. The update immediately occurs globally.

3. If prompted for checkin information, make sure the **Check in from file** option is selected. Enter other information as appropriate. Checkin information varies depending on your organization's setup. For an explanation of common checkin fields, see Checkin information, page 167.

4. Click **OK**.

Cancel checkout of a file

Canceling checkout unlocks the file and discards the changes you made to the copy of the file on your computer. The repository retains the last version of the file as the current version.

To cancel checkout of a file:

1. Navigate to the file in the repository and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.

2. Select **File > Cancel Checkout**.

3. If prompted to confirm cancellation, do one of these:
   - If canceling checkout on one file, click **OK**.
   - If canceling checkout on multiple files, confirm cancellation for each file separately by clicking **Next**. After the last file, click **Finish**.

     Tip: To confirm cancellation for all remaining files at once, click **Finish**.

View currently and recently checked-out files

To view your list of recently used files, click **My Files**.

My Files displays both the files that you currently have checked out as well as files that you have checked back in. The files that you currently have checked out are designated by the key icon.

To view the files you currently have checked out, sort the My Files list according to lock owner by clicking the key icon in the column headings row.

You can perform all the standard file operations from My Files. Use the same procedures as you would for any location in the repository.

If your organization's setup includes multiple-repository functionality, then My Files also displays the files you have recently accessed from other repositories, as well as the repository you are currently viewing. You can perform all the standard operations on files from other repositories, so long as you have usernames and passwords for those repositories.

View a file in read-only mode

When you view a file, DCM either streams the file to your computer or downloads a copy of the file to your view directory. The file is not checked out from the repository. You can make changes to the file locally, but you cannot save your changes to the repository.

For Windows users, the default view directory is this:

```
C:\Documentum\Viewed
```

If another file with the same name already exists in the view directory, DCM appends the name with a number.

You can view a file even if it is checked out by another user.

To view a file without check out:

1. Navigate to and select the file.
2. Select **File > Open (Read Only)**.

To view links inside an HTML file, you must have virtual link installed.

Change the format associated with a type of file

Every item in the repository has an associated object type. The object type defines what kind of item an item is and determines properties and actions available for the item. By default, an object type is associated with a file format for editing and a file format for viewing.

To change the format associated with a type of file:

1. Select **Tools > Preferences**.
2. Select the **Formats** tab.

   The **Formats** tab lists types for which the associated applications have been changed from the default associations.
3. Do one of these:
   - To associate an application for a type that is not listed, click **Add**.
   - To associate an application for a type that *is* listed, select the type and click **Edit**.
4. Complete the fields in Table 14, page 172:

Table 14. Formats tab

Field	Description
Choose object type	Select the type for which to set the format.
Primary format	Select the file format to associate with the type.
Format for viewing	Select the file format to associate with a read-only viewing of a file of this type.
Would you like this content to appear in the web browser?	If the application can be opened by using a web browser, you can make that the default viewing application. To do so, select **Yes**.
Application for viewing	Click **Select Application** and select the application used when viewing items of this type.
Application for editing	Click **Select Application** and select the application used when editing items of this type.

5. To save your changes, click **OK**.

Restore associated file formats to the defaults

To restore the associated file formats to the defaults:

1. Select **Tools > Preferences**.
2. Select the **Formats** tab.
3. Select the object type.
4. Click **Restore Default**.

Import files to the repository

If you import a folder, the folder's contents are also imported.

Depending on your organization's setup, there might be a limit on the number of items you can import at one time.

If your setup allows the creation of renditions upon import, there is a delay between the time of import and the creation of the renditions.

To import into the repository:

1. Navigate to the repository location to import to.
2. Select **File > Import**. Then click either **Add Files** or **Add Folders**. Select the file or folder and click **OK**. To add multiple files or folders, repeat the sequence. When you have finished, click **Next**.

   Tip: Instead of using the File menu, you can drag-and-drop the file or folder from your local computer to the location in DCM. If you use drag-and-drop, you are not given the option to import locally prior to importing globally. The import immediately occurs globally.
3. If prompted to set properties for imported files, set properties as described in Table 15, page 173. The table describes common properties. Your installation of DCM might include different properties.

Table 15. Properties for imported files

Field	Description
Type	*Do not change this property*
Format	*Do not change this property*
Lifecycle ID	Assigns a lifecycle to the each imported item.
Check for links to other Microsoft documents and import linked documents	If this field appears, check this to have DCM scan each imported document for linked documents. If linked documents are found, they are also imported. The original document becomes a virtual document, and the linked documents become descendants.
Upload options	If this field appears, you can determine how quickly the imported content is available to other users and whether you can use DCM while the import occurs. Select one of these: • **Send for immediate global access**Updates the repository immediately for all your organization's users. While this occurs, you cannot perform other actions in DCM.

Field	Description
	• **Send first for local access**Updates the repository immediately for the users in your geographic area, but DCM takes more time to update the repository for all users. This allows you to continue using DCM while the update occurs.

4. Do one of these:
   - If importing one file, click **OK**.
   - If importing multiple files, set properties for each file separately by clicking **Next**. After the last file, click **Finish**.

     Tip: To apply the selected properties to all remaining files at once, click **Finish**.

Export files from the repository

When you export a file or folder, you create a copy of the file or folder in a location outside of the repository. When you export a folder, the folder's files and subfolders also are exported.

To export from the repository:

1. Navigate to one or more files or folders and select them.
2. Select **File > Export**.

   Tip: Instead of using the File menu, you can drag-and-drop the items from the repository to the appropriate location on your local computer.
3. If prompted to set export options, do one of these:
   - If exporting one file, set options and click **OK**.
   - If exporting multiple files, set options for each file separately by clicking **Next**. After the last file, click **Finish**.

     Tip: To select options for all remaining files at once, click **Finish**.
4. If prompted for the location to which to export, select the location and click **OK**.

Delete an item from the repository

To delete an item from the repository:

1. Navigate to the item and select it.

   Tip: You can perform this procedure on multiple items by selecting multiple items.

2. Select **File > Delete**.

3. If prompted to select whether to delete related items, make the appropriate selections, and then do one of these:
   - If deleting one item, click **OK**.
   - If deleting multiple items, make selections for each item individually by clicking **Next**. After the last item, click **Finish**.

     Tip: To apply selections to all remaining files at once, click **Finish**.

Move an item to a new location in the repository

You can move an item to another location within the same repository. By default, DCM moves only the selected version of the item. Your administrator might have instead configured DCM to move all versions. Ask your administrator which behavior applies.

You cannot move an item that is locked. If an item is locked, the lock owner must first unlock it.

Tip: You can also move items by drag-and-drop.

To move an item to a new location:

1. Navigate to the item and select it.

   Tip: You can select multiple items.

2. Select **Edit > Add To Clipboard**.

   Tip: You can repeat the previous steps to add items from multiple locations to your clipboard. When you complete this procedure, all the items on your clipboard will be moved to the same location.

3. Navigate to the location to which to move and open the location so that the location's files and folders are displayed in the content pane. Select **Edit > Move Here**.

   Tip: Instead of using the Edit menu, you can right-click on the location and select **Move Here**.

   The items are moved to the new location. The items remain on your clipboard until the next time you add items to the clipboard. To view your clipboard, select **Edit > View Clipboard**.

Copy an item to a new location in the repository

You can copy an item from one repository to another, as well as within a repository. When you copy an item, only the selected version is copied.

To copy an item to a new location:

1. Navigate to the item and select it.

   Tip: You can select multiple items.

2. Select **Edit > Add To Clipboard**.

   Tip: You can repeat the previous steps to add items from multiple locations to your clipboard. When you complete this procedure, all the items on your clipboard will be copied to the same location.

3. If copying to another repository, open that repository in the navigation pane. For more information, see Log into another repository, page 151.

4. Navigate to the location to which to copy and open the location so that the location's files and folders are displayed in the content pane. Select **Edit > Copy Here**.

   Tip: Instead of using the Edit menu, you can right-click the location and select **Copy Here**.

5. If the clipboard appears, select the items to copy and click **Copy**.

   The items are copied to the new location. The items remain on your clipboard until the next time you add items to the clipboard.

   If you copied an item to a location that already includes that type of item with the same name, DCM adds **Copy** to the name of the copied item.

View your clipboard

Your clipboard holds the files and other items you are moving, copying, or linking to another location in the repository. Your clipboard can hold multiple files at once.

To view your clipboard, select **Edit > View Clipboard**. If an expected item does not appear, make sure you have set your view filters to display the item.

To remove an item from your clipboard, select the item and click **Remove**.

Links

This section includes these:

- Link an item to another location in the repository, page 177
- Link an item to another repository, page 177
- View all locations to which an item is linked, page 178
- Link a repository item to your computer, page 179
- Add a document or folder to your browser's bookmarks or favorites, page 179
- Use email to send a link to a repository item, page 179
- Open a link sent by email, page 180

Link an item to another location in the repository

When you link an item to another location in the repository, the item can be accessed from the new location in the same way it is accessed from its original location.

You cannot link an item that is locked. If the item is locked, the lock owner must first unlock it.

To link an item to another location in the repository:

1. Navigate to the item and select it.

   Tip: You can select multiple items.

2. Select **Edit > Add To Clipboard**.

   Tip: You can repeat the previous steps to add items from multiple locations to your clipboard. When you complete this procedure, all the items on your clipboard will be linked to the same location.

3. Navigate to the location to which to link and open the location so that the location's files and folders are displayed in the content pane. Select **Edit > Link Here**.

   Tip: Instead of using the Edit menu, you can right-click the location and select **Link Here**.

   The items are linked to the new location. The items remain on your clipboard until the next time you add items to the clipboard. To view your clipboard, select **Edit > View Clipboard**.

Link an item to another repository

You can link an item from one repository to another. This creates a shortcut to the selected item.

You can perform most of the standard file and folder operations on shortcuts. For example, you can export, copy, and check out shortcuts. You use the standard procedures to perform such operations. When you perform an operation, DCM performs the operation on original item in the original repository. For example, when you check out the shortcut, DCM also checks out the original in the source repository.

Shortcuts are designated by a small, duplicate-icon overlay on the file icon. The overlay looks like a little copy of either the folder or file icon.

Shortcuts allows users of different repositories to share files over great distances, while making the shared files local to each office. A shortcut can have both global and local properties. When you change a global property value, the value is changed in the source item and in any other shortcuts. When you change a local property value, the value is changed only in the current shortcut.

To navigate from the shortcut to the original item, select the shortcut and then select **File > Go to Target**.

To link an item to another repository:

1. Navigate to the item and select it.
2. Select **Edit > Add To Clipboard**.
3. In the same DCM window, open the repository to which to link.
4. Navigate to the location in the new repository.
5. Select **Edit > Link Here**.

The Content Server uses automated jobs to synchronize shortcuts and originals.

Note:

- Replication jobs automatically synchronize the shortcut with the original file. You can manually synchronize the shortcut without waiting for the automated synchronization to occur by refreshing.
- Any operations that modify an item are implicitly performed on the source item and the shortcut item is updated to reflect the change.
- If your configuration supports translations, then when you create a translation of a shortcut, you create a new file in the repository. You do not create a shortcut.
- You can perform lifecycle operations on shortcuts that already have lifecycles applied to them.

View all locations to which an item is linked

To view all locations to which an item is linked:

1. Navigate to the item and select it.
2. Do one of these:

- Select **View > Locations**.
- Select **View > Memberships**.

Link a repository item to your computer

To link a repository item to your computer:

1. Navigate to and select the item.
2. Select **View > Properties > Info**.
   A shortcut icon appears next to the items name.
3. Drag-and-drop the shortcut icon to the appropriate location. For example, drag-and-drop the icon to a folder on your computer.

Add a document or folder to your browser's bookmarks or favorites

To add a document or folder to your browser's bookmarks or favorites:

1. Navigate to the document or folder in the repository and select it.
2. Select **File > Add to Favorites**.
3. Click **OK**.

To open a document or folder from your browser's bookmarks or favorites:

1. In your browser, select the document or folder from the bookmark or favorite menu.
2. If prompted to log in, enter your login information, and click **Login**.

Use email to send a link to a repository item

To send a link in an email message:

1. Locate the repository item and select it.
   Tip: You can perform this procedure on multiple items by selecting multiple items.
2. Select **File > Email as Link**.
   Your email application opens a new email message and inserts the link to the repository item.
3. Type the email address and any message as appropriate and send the email.

Open a link sent by email

To open a link sent by email:

1. Click the link.
2. If prompted to log in, enter your login information, and click **Login**.
3. If prompted to select how to open the file, make selections as appropriate.

Subscriptions

The items you subscribe to appear in your Subscriptions node. When you access an item through this node, the item is retrieved from its original repository location.

To subscribe yourself to a repository item:

1. Navigate to the item and select it.
2. Select **Tools > Subscribe**.

   Tip: Instead of using the Tools menu, you can drag-and-drop the items to the **Subscriptions** node in the navigation pane.

To subscribe another user to a repository item:

1. Navigate to the item and select it.
2. Select **Tools > Subscribe Others**.
3. In the selection dialog box, select one or more users and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

To cancel your subscription to an item:

1. Navigate to the item and select it.
2. Select **Tools > Unsubscribe**.

Receive notification when a file is read or changed

To have a notification sent to you when a file is read or changed:

1. Select the file.

   Tip: You can perform this procedure on multiple files by selecting multiple files.

2. Do one of these:
   - To have notification sent any time a file's content is viewed, whether by opening, checking out, or exporting, select **Tools > Turn on read notification**.
   - To have notification sent any time a file is changed, select **Tools > Turn on change notification**.

   Notifications are sent to both your DCM inbox and your email inbox.

   Tip: You can later turn notification off by selecting the file and selecting either **Tools > Turn off read notification** or **Tools > Turn off change notification**.

Export the information displayed in a list

When you export the property values of the items in a particular list, the information is saved as a .csv file, which opens in your default application for .csv files.

Before performing this procedure, make sure your browser's security settings allow file downloads.

To export information displayed in a list:

1. Navigate to list.
2. Select **Tools > Export to CSV**
3. Select the columns to export as metadata.
4. Click **OK**.
5. Select whether to view or save the .csv file.
6. If you chose to save, select the location to which to save.
7. Do one of these:
   - If using a browser other than Internet Explorer (IE), click **OK**.
   - If using IE, press and hold down **Ctrl** and click **OK**.

If have exported columns that contain special characters, and if you open the .csv file in Microsoft Excel but Excel does not display them correctly, then save the file to your computer and close it, and then use the **Data > Import External Data > Import Data** menu option to import the .csv file.

Chapter 16

Email Messages

This chapter includes:

- Import email messages and attachments to the repository, page 183
- Open an email message for viewing, page 184
- Transform an email message to HTML or PDF, page 185
- Export an email message from the repository, page 185
- Locate and open an email attachment, page 185
- Create and edit a copy of an email attachment, page 186
- Export an email attachment from the repository, page 186

Import email messages and attachments to the repository

When you import an email message to the repository, the message is saved to the repository for viewing but not for editing. If the message has attachments, those also are saved for viewing and but not editing.

The message can be exported from the repository with its attachments and saved locally as a single file, with the attachments embedded within. Note that the message cannot be exported if the DCM installation uses HTTP Content Transfer, though the attachments still can be individually exported.

To import email messages and attachments to the repository:

1. In Microsoft Outlook, do one of these:
   - Drag-and-drop one or more email messages to a location in DCM. Skip to Step 4
   - Save one or more email messages to a location on your computer.
2. In DCM, navigate to the repository location to which to import the email messages.

3. Select **File > Import**. Then click **Add Files**. Then select an email message and click **OK**. To add multiple email messages, repeat the sequence. When you have finished, click **Next**.

   Tip: Instead of using the File menu, you can drag-and-drop the email message or messages from your computer to the location in DCM.

4. Set properties as described in Table 16, page 184. If importing more than one email message, set properties for each message individually by clicking **Next**.

Table 16. Properties for imported email messages

Field	Description
File	*You cannot change this property.*
Name	Enter a name for the email message in the repository.
Type	*Do not change this property. This assigns the default type for email messages, which is either dm_message_archive or a subtype of dm_message_archive.*
Format	*Do not change this property.*
Lifecycle ID	To assign a lifecycle to the email message, click **Select** and assign the lifecycle.

5. After setting properties, click **Finish**.

Open an email message for viewing

Once an email message is imported into the repository, you can view it in read-only mode. You cannot edit it.

To open an email message for viewing:

1. Navigate to the email message and select it.

   Note: When displaying a list that includes email messages, you can choose to add additional column information pertinent to the email messages, such as the sender and recipients. To add columns to a list, see Select the columns that appear in lists, page 153.

2. Select **File > View**.

Transform an email message to HTML or PDF

To transform an email message to HTML or PDF:

1. Navigate to the email message and select it.
2. Select one of these:
   - **Tools > Transformation > HTML Rendition**.
   - **Tools > Transformation > PDF Rendition**.

Export an email message from the repository

When you export an email message, DCM creates a copy of the email as a .msg file in the location you choose. Any attachments to the message are embedded in the exported .msg file.

You cannot export email messages if your installation uses HTTP Content Transfer.

To export an email message from the repository:

1. Navigate to one or more email messages and select them.
2. Select **File > Export**.

   Tip: Instead of using the File menu, you can drag-and-drop the email messages from the repository to the appropriate location on your local computer.
3. If prompted to set export options, do one of these:
   - If exporting one message, set options and click **OK**.
   - If exporting multiple messages, set options for each separately by clicking **Next**. After the last message, click **Finish**.

     Tip: To select options for all remaining messages at once, click **Finish**.
4. If prompted for the location to which to export, select the location and click **OK**.

Locate and open an email attachment

You can open an email attachment and view it in read-only mode. You cannot edit the attachment, but you can create a copy of the attachment and edit the copy, as explained in Create and edit a copy of an email attachment, page 186.

To locate and open an email attachment:

1. Open the email message that contains the attachment, as described in Open an email message for viewing, page 184.

   Tip: You can also locate an attachment by searching. To do so, type all or part of the attachment's name into the search box above the tree navigation pane. For more information on searching, see Chapter 17, Search.

2. Click the **View Properties** link.

Create and edit a copy of an email attachment

To create and edit a copy of an email attachment:

1. Open the email message that contains the attachment, as described in Open an email message for viewing, page 184.

   Tip: You can also locate an attachment by searching. To do so, type all or part of the attachment's name into the search box above the tree navigation pane. For more information on searching, see Chapter 17, Search.

2. Right-click the attachment and select **Add To Clipboard**.
3. Navigate to the location to which to copy the attachment and open the location so that the location's files and folders are displayed in the content pane. Select **Edit > Copy Here**.
4. If the clipboard appears, select the email message attachment and click **Copy**.
5. To edit the copy, select the copy and select **File > Edit**.
6. To perform any other standard DCM operation on the copy, use the procedure for performing that operation.

Export an email attachment from the repository

To export an email attachment:

1. Open the email message that contains the attachment, as described in Open an email message for viewing, page 184.
2. Right-click the attachment and select **Export**.
3. If prompted to set export options, do so and click **OK**.
4. If prompted for the location to which to export, select the location and click **OK**.

Locate the email to which an attachment belongs

To locate the email to which an attachment belongs:

1. Search for the email attachment by typing all or part of the attachment's name into the search box above the tree navigation pane. For more information on searching, see Chapter 17, Search.
2. Right-click the attachment and select **View > Location**.

Chapter 17

Search

This chapter includes:

- Run a simple search, page 189
- Run an advanced search, page 193
- View search results, page 197
- View your most recent results but do not relaunch the search, page 200
- Improve your search experience, page 201
- Saved searches, page 204
- Search templates, page 206
- Set search preferences, page 210

Run a simple search

When you enter a search term (a word or phrase) in the simple search box, the term is matched to documents or other objects that have the search term within the document itself or within the object's properties. This kind of search is called a "full-text" search.

It searches the files in your default search location. Your default search location is specified in your search preferences. Set search preferences, page 210, describes how to add a search location. You can search several repositories at the same time but you also have the possibility to search external sources such as external databases, web sources or your desktop.

When displaying search results, DCM displays files with the most matching words first. If your repository has been indexed for parts of speech, DCM also displays files that include variations of the words you typed. For example, if you type *scanning* then DCM also looks for files that contain the words *scan*, *scanned*, and *scanner*.

To run a simple search:

1. In the box above the navigation pane, type the words for which to search.

To further define your search, see Further define search terms, page 190.

2. Click .

   If your search includes several terms, the results displayed first will contain all search terms, then DCM will display the results that contain only some of the search terms.

   Tip: To stop the search, click **Stop** .

3. See View search results, page 197.

Further define search terms

You can use the syntax in Table 17, page 190 to further define search terms within a simple search or within the **Contains** field in an advanced search.

Table 17. Further define search terms

Syntax	Description
Quotation marks around a word or phrase: " "	To search for an exact word or phrase, type quotation marks around the word or phrase. For a simple search (including the Contains field in an advanced search), if you do not use quotation marks, DCM displays files that contain both the exact words you typed as well as variations of the words, such as *scanning* for the word *scanner*. This option is disabled when searching for more than one word or if your repository has not been indexed for variations. Quotation marks cannot be used to match the exact case of a word.
The **AND** and **OR** operators	To get results that contain two search terms, type **AND** between the terms. A term can be a word or quoted phrase. To get results that contain at least one term, type **OR** between the words or the quoted phrases. You can string together multiple terms with the **AND** and **OR** operators. The **AND** operator has precedence over the **OR** operator. For example, if you type: `knowledge or management and discovery` then your results must contain either knowledge or they must contain management and discovery.

Syntax	Description
The **NOT** operator	To get results that do not contain a term, type **NOT** before this term. The term can be a word or a quoted phrase. Only the term that follows the operator is taken into account. The **NOT** operator can be used after the **AND** or **OR** operator, separated by a space. Valid syntaxes would be: *Documentum NOT adapter* or *Documentum AND NOT adapter*, both queries will return results that contain Documentum but do not contain adapter. If you type *Documentum OR NOT adapter*, you get results that either contain Documentum (and possibly contain adapter) or that do not contain adapter. Use this syntax cautiously. It can generate a very large number of results. The **NOT** operator can be used alone at the beginning of the query. For example, if you type *NOT adapter*, you get results that do not contain adapter. Use this syntax cautiously. It can generate a very large number of results. The **NOT** operator is not supported for queries on external sources when it is alone at the beginning of the query or if used with the **OR** operator. The **NOT** operator cannot be used with parentheses. This is invalid: *A NOT (B OR C)*. However, the **NOT** operator can be used inside parentheses. This is valid: *(A NOT B) OR (A NOT C)*. ANDNOT (in one word) is not an operator, if you enter ANDNOT in a query, it will be considered as a search term.
Parentheses around terms: **( )**	To specify that certain terms must be processed together, use parentheses. When using parenthesis, you must type a space before and after each parenthesis mark, as shown here: *(management or discovery)* As an example, if you type *knowledge and management or discovery*, then your results will contain both knowledge and management *or* they will contain discovery. But if you type *knowledge and (management or discovery)*, then your results will contain knowledge and either management or discovery.

Syntax	Description
The multiple-character wildcard: *****	If the repository is indexed, you can use the multiple-character wildcard to indicate additional characters anywhere in a word. It matches zero or more characters. The multiple-character wildcard is only available or a simple search (including the **Contains** field in an advanced search). The multiple-character wildcard is not available for a searches on non-indexed repositories, for searches of property values, or for searches of external sources. For those, you should use truncation operators, such the **Begin with** operator. **Note:** If you use wildcards, then DCM will not display results that include variations of the words you typed. For example, if you type `d*ment` then your results must contain: document, development, deployment, department, etc. but not documented or documentation.
The single-character wildcard: **?**	If the repository is indexed, you can use the single-character wildcard to indicate a single, unknown character anywhere in a word. The single-character wildcard is only available or a simple search (including the **Contains** field in an advanced search). The single-character wildcard is not available for searches on non-indexed repositories, for searches of property values, or for searches of external sources.

Note:

- The operators AND, OR and NOT are reserved words. To search a term that includes an operator, use quotation marks. For example, if you search for "hardware and software", DCM returns documents with that string of three words. If you type hardware and software without quotation marks, DCM returns all of the documents that contain both words.
- The operators AND, OR and NOT are not case-sensitive. For example, for your convenience, you can type: AND, and, And.

Run an advanced search

To search for a document by one of its properties, use advanced search. An advanced search enables you to define more precisely your query on the properties of the document. For example, you can search the current version of the documents whose author is John Smith and modified between November 1, 2006 and December 31, 2006.

To run an advanced search:

1. On the DCM main page, click the arrow next to the magnifying glass icon and then click **Advanced**.
2. Enter values for the search. See Enter values for an advanced search, page 193.
3. Click **Search**.

   Tip: To stop the search, in the result page, click **Stop** .
4. See View search results, page 197.

Enter values for an advanced search

This procedure assumes you have already opened the Advanced Search page. If you have not, see Run an advanced search, page 193.

Tip: In the Advanced Search page, you can clear any existing values and start with empty fields by clicking **Clear**.

To enter values for an advanced search:

1. In the **Contains** field, type the text for which to search.

   This field is similar to the simple search. To further define your search, see Further define search terms, page 190.
2. In **Locations**, select the locations to search.

   To add locations, do these:

   a. Make sure that **Current location only** is not selected, then click **Edit**.

   b. In **Available Repositories** or **Available Sources**, navigate to and select the location. The location in **Available Repositories** can be a repository, a cabinet or a folder. **Available Sources** is displayed only if DCM is configured to search external sources.

      If you select repositories or sources for which your credentials are not saved, a login window may appear.

   c. Click the arrow to add it to the **Included in Search** list.

d. Repeat Step b and Step c for as many locations as needed.

e. To remove a location, select it and click the remove arrow.

f. To set the locations as your default locations for every new search, select **Set as default**.

g. Click **OK**.

3. In the **Object Type** list, select the type of files to search for.

4. Enter remaining properties as appropriate. Table 18, page 194 describes common properties. The properties available depend on the type of file you search for, as selected in the **Object Type** list in Step 3.

Table 18. Common properties in an advanced search

Field	Description		
Properties list	Enter one or more property values to search for by doing these: 1. If no fields appear, click **Select a property**. 2. On a given line: In the first drop-down list, select a property. In the second drop-down list, select a property-to-value relationship. For a description of possible relationships, see Table 19, page 196. In the remaining fields, select or type values. If you type multiple words, they are searched for as a phrase. For example, if you type "knowledge management" then DCM searches for values that contain the phrase "knowledge management" but not for values that contain "knowledge" and "management" separated from each other by other words such as “knowledge and process management”. If you want your results to include both terms either as a phrase or separately, you must create two subqueries and use the AND operator. 3. To add additional properties, click **Add another property** and then select one of these operators: • **And**: Selecting this means that the search results must match both the property value on this line and the property value on the previous line. • **Or**: Selecting this means that the results can match either the property value on this line or the property value on the previous line. If you search external sources, do not use the **OR** operator between		

Field	Description		
	different types of properties. This query is valid: "*Author contains Lewis OR Author contains Twain*," but this query is not valid: "*Author contains Lewis OR Name contains Knowledge management*." If you add three or more lines of properties, the order of operations follows the order of definition. Each time you add **And** or **Or**, the previous operators are grouped together. For example, if you define the query "*Name contains Knowledge Management AND Author contains Lewis OR Author contains Twain*," then the results either must contain the documents whose name is Knowledge Management and whose author is Lewis or they must contain all the documents whose author is Twain. To find all the documents whose name is Knowledge management and whose author is either Lewis or Twain, you must define the following query: *Author contains Lewis OR Author contains Twain AND Name contains Knowledge management*. 4. To remove a property from the search criteria, click **Remove** for that property.		
Date	Select the type of date to search for. Specify a date range, either a fixed date range using today's date or by typing the **From** and/or **To** dates. Months can be written in figures or in full. Years can be written with two or four figures. When specifying a date From, the date is not included in the date range. Conversely, when specifying a date To, the date is included in the date range.		
Size	Select a size range.		
Properties when searching for email messages	**Subject**	Type the words for which to search. To further define your search, see Further define search terms, page 190.	
	To		
	From		
	Sent	Select the date the email message was sent.	
	Received	Select the date the email message was received.	

Field	Description		
Find hidden objects	Choose to include hidden items in the search. The search displays only those hidden items that you have permission to view.		
Find all versions	Choose to search for past versions of the file, as well as the current version.		

The relationship between a property and its corresponding value is defined by operators. Table 19, page 196 describes the operators available in the Advanced Search page.

Table 19. Select a property-to-value relationship

Operator	Description
Relational operators: Less than < Less than or equal to <= Greater than > Greater than or equal to >=	You can use these operators with numerical values or strings.
Equal to =	Returns results in which the property value contains only the exact value you typed.
Not equal <>	Returns results in which the property value never matches the value you typed.
Truncation operators:	The truncation operators can be used in place of the multiple-character wildcard.
Begins with	Returns results in which the property value begins with the value you typed. Same as using an ending wildcard.
Ends with	Returns results in which the property value ends with the value you typed. Same as using an starting wildcard.
Contains	Returns results in which the property value contains the value you typed anywhere within it. Same as using starting and ending wildcards.

Operator	Description
Does not contain	Returns results in which the property value does not contain the value you typed anywhere within it.
Other operators:	
In	Returns results in which the property value matches one of the values you typed. Potential values are typed as a comma-separated list.
Not in	Returns results in which the property value does not match any of the values you typed.
Is null	Returns results in which the property value is not defined. If you know that a property contains no value, you can use this operator to narrow a search.
Is not null	Returns results in which the property value is defined, but with no specific value. You can use this operator to find only documents whose properties are defined. For example, if you select keywords is not null then your results must contain only documents with keywords.

View search results

In search results, you can do these:

- To turn highlighting on or off, click  or  .
- If your organization includes the smart navigation feature, your results appear in the navigation pane as well as the content pane. The results in the navigation pane are arranged according to property.

  To view results that include a certain property, click the property. For more information, see Smart navigation, page 198.

- To get additional information about the search, click **Status**. This displays search statistics according to search location. If your organization includes the search monitoring feature, this also displays the statistics in real time, as described in Monitor search results in real time, page 198.
- To revise the search and run it again, click **Edit** and set values as described in Enter values for an advanced search, page 193 and click **Search**.
- To run the search again without revising it, click **Restart**.
- To save the search so that it can be run again to receive updated results, see Save a search to run again later, page 204.
- If your organization includes the templates feature, you can save the search as a search template so that it can be run again with different parameters, as described in Create a search template, page 207.
- To save results from an external source into a repository, see Save search results from external sources, page 200.

Smart navigation

If smart navigation is available, then when you run a search, your results are not only displayed in the content pane, but they are also grouped into clusters of related results in the navigation pane. Smart navigation is available only if DCM includes the Extended Search option and is configured for smart navigation.

To collapse or expand the **Smart Navigation** list, click the minus/plus sign at the top of the list.

To expand a cluster or sub cluster, click the plus sign next to the cluster.

To display a sub cluster's results in the content pane, click the sub cluster.

To refresh the **Smart Navigation** list with new results, click. The icon appears only if new results are available.

DCM computes sub clusters using the strategy defined in your user preferences. To set your preferences, click and then follow the appropriate steps in Set search preferences, page 210.

Monitor search results in real time

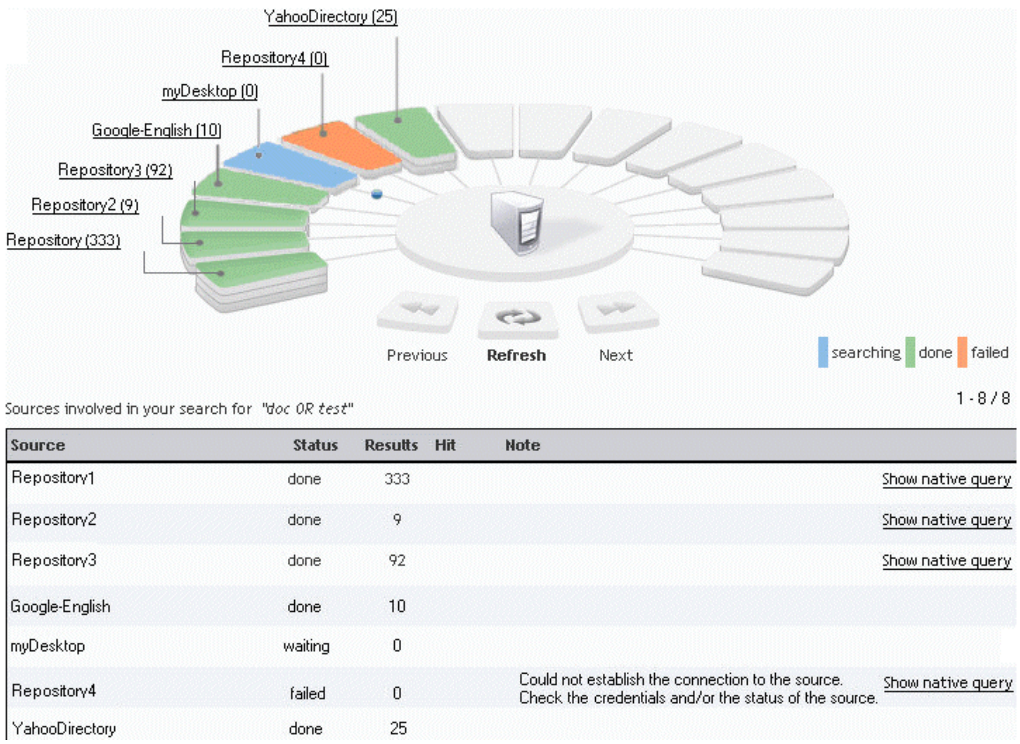
Search monitoring displays the status of your search in real-time. The real-time status appears in both an animated display and in a table, as shown in Figure 35, page 199. Search monitoring allows you to see which search sources return results the fastest.

Search monitoring is available if the search monitoring Extended Search option is installed.

To display search monitoring, click **Status**  as soon as the search has started.

To replay the animation after the search has completed, click the Refresh icon, . When you replay the animation, you see a replay of how the search occurred. Replaying the animation does not rerun the query.

Figure 35. Real-time results in the search monitor screen



In the animation, each search source is represented by a pie slice. The number of layers in a slice corresponds to the number of results: one layer indicates no results; two layers indicate 1 to 50 results; and three layers indicate 51 or more results. Modified configurations might vary.

The color of a slice indicates the source status: blue when searching, green when the search is completed, and orange if the search has failed.

Click a source's slice to highlight its corresponding row in the table.

Click **Show native query** to view the native query that indicates how the query was translated for the source

The animation displays the sources sixteen by sixteen, so the first view of the animation only displays the first sixteen sources. If you are running the search against more than sixteen sources, you can see the next sixteen sources by clicking **Next** below the animation.

If a search fails for a given source, a detailed error message is displayed in the **Note** column of the table. To get additional information about the error, select **Tools > View messages**.

Note: If you launch the monitoring when viewing the results of saved searches or the last search results, the query is not rerun and the animation does not replay entirely. The source status is first waiting with zero result then it is immediately updated to show the final status of the sources and the number of valid results returned by each of them.

Save search results from external sources

This procedure enables to save results from an external source into a repository.

To save a search result of an external source into the repository:

1. Select the result(s).
2. Select **File > Save to repository**.
3. In the **Folder selection** window, select the target folder from the list of available repositories.
4. Click **Next** to check the object definition or **Finish** to complete the procedure.
5. In the **Object Definition** window, modify the object properties as needed.
6. Click **Next** to check the object definition for these result(s) or **Finish** to complete the procedure.
7. Repeat Step 5 and Step 6 as many times as needed.

Saved results are available in the selected folder but they are also displayed in **My files**.

View your most recent results but do not relaunch the search

This procedure applies only to your current DCM session.

To view your most recent search results:

1. At the top of the DCM page, click the arrow next to the magnifying glass icon.

2. Click **Last Results**.

Improve your search experience

Your search experience can be restricted or improved by your understanding of the search syntax and of the various parameters that define the search environment. The search syntax is the way you write the query, which implies the use of operators, and special characters such as parentheses, quotation marks or wildcards. The search syntax is documented at the beginning of this chapter in Run a simple search, page 189, and Run an advanced search, page 193. The search environment corresponds to the circumstances when the query is run; that is: the repository configuration, external sources configuration, the configuration of your WDK application. All these parameters are not visible nor accessible to users; however, they should be taken into consideration when running queries in order to get the most relevant results.

This section describes these aspects that influence your search experience:

- How configuration can impact your search experience, page 201
- Index a repository, page 202
- Searchable items, page 203

How configuration can impact your search experience

The search functionality description given in this manual refers to the default configuration. However, your system administrator can configure this functionality in many ways. This list details possible configurations that may affect your search experience:

- **Indexing**

  Whether a repository is indexed is not of your interest and usually, you don't need to know it. However, in some cases, indexing capabilities can be used to define more precise queries. For example, wildcards can only be used if the repository is indexed, if not, they are skipped. If you want to run complex queries, consult the system administrator for details on the indexing configuration of the repository. The section Index a repository, page 202, provides more information about indexing.

- **Relevancy ranking**

  The system administrator can specify a bonus ranking for specific sources, add weight for a specific property value or improve the score for a specific format.

- **Presets**

  The system administrator can define a preset to restrict the list of available types in the Advanced search page. Presets can be different from one repository to another. If you select only external sources, the preset of the current repository applies.

- **Customization of the Advanced search page**

  The Advanced search page can be fully customized to guide you in running queries. For this reason, all the options described in this guide may not be available and other may appear to narrow and/or condition your queries.

- **Maximum number of results**

  The maximum number of results is defined at two levels. By default, the maximum number of results, taking all sources together, is 1000 and 350 results per source. However, your system administrator can modify these parameters. When querying an external source, the maximum number of results also depends on the configuration set for this source. Results are selected according to their ranking. This way, you always get results with the best ranking; other results are skipped.

- **Case-sensitivity**

  If the repository is indexed, queries are case-insensitive by default, even using quotation marks. If the repository is not indexed, then queries are case-sensitive. However, for non-indexed repositories, case-sensitivity can be turned on and off by the system administrator.

- **Grammatical normalization (lemmatization)**

  When you do not use quotation marks, DCM displays files that include variations of the words you typed in addition to the exact words. These variations are based on the word's root. This behavior depends on the configuration of the full-text engine and is called grammatical normalization.

- **External sources**

  When querying an external source, the results displayed in DCM depend partly on the configuration of this source. For example, if the source does not return information on dates, then dates cannot be filtered.

- **Multiple repositories**

  As for external sources, the results depend on the configuration of each repository. For example, the indexing may be set differently on various repositories.

Index a repository

Indexing a repository is the administrator's job and you could think you don't need to know what is indexing and whether the repository you are using is indexed or not. However, indexing can have an impact on the search experience. When a repository is indexed, a data structure, the index, is created to store information. The information can either be on the files' properties only or on the properties and the content of the files. Searching an indexed repository facilitates a rapid retrieval of documents because it does not require scanning all files but only searching the index. In this guide, when referring to an indexed repository, we mean a repository for which both content and properties are indexed and not only properties. When the repository is indexed, you run full-text queries when using the simple search box or the Contains field of the advanced search window. When the repository is not indexed, the query is converted into a query on the most relevant properties: name, title, and subject. This mechanism is transparent and enables you to retrieve the most relevant results.

Searchable items

Only the documents that are indexable can be searched. For example, pictures or binary content cannot be searched because they are not indexable.

Moreover, not all characters are searchable. Searchable characters are alphabetic, numeric, extender, and custom characters. Custom characters enclose Chinese, Japanese, and Korean letters and months.

Other characters, including punctuation, accent, and diacritical marks, and characters such as | and #, are not indexed or searched. Such nonsearchable characters are removed from the indexed text and treated as if they are blank spaces. The index server treats these characters as white space: !@#$%^_,.&;:()+=<

When these characters appear in indexable content, they are replaced by white space. For example, when the email address MyName@company.com is indexed, it appears as "MyName company com" in the index. The text is treated as three words. Documents returned by a search for MyName@company.com are treated as if they contain the words "MyName company com".

If a special character is included in a query, it is removed. For example, querying on Richard+Dodd would return a document containing the text Richard=Dodd because the + and = signs are both replaced by a blank space. If a search term includes an accent or diacritical mark, the search returns all matching words with or without the accent or diacritical mark.

Note:

- Unlike web browser search, you cannot use the plus and minus signs as operators. You must use the AND operator and the OR instead.
- The asterisk and the question mark can be used as wildcards.

Saved searches

Searches can be saved so that you can launch them regularly without redefining them, share them between users, or to quickly retrieve the corresponding results. In the Saved Searches node, public and private searches are distinguished by one of the following icons:

- means this saved search is public and accessible to any user.
- means you are the only one that can access this saved search.

Saved searches are displayed outside of the Saved Searches node with a general icon: .

This section includes these:

- Save a search to run again later, page 204
- Run a saved search, page 205
- View the results of a saved search but do not relaunch the search, page 205
- Edit a saved search, page 205
- Copy a saved search, page 206

Save a search to run again later

You can save a search so that it can be run again later to retrieve updated results.

To save a search to run again later:

1. From the search results page, click **Save** .
2. Type a name for the saved search.
3. To display the results of this search in the **Saved Searches** node without having to run the search again, select **Include Results**.
4. To allow other users to access this search, select **Make Public**.
5. Click **OK**.

   The saved search is stored in the repository's **Saved Searches** node.

   Though the saved search is stored in one repository, you can use the saved search to search across multiple repositories.

Run a saved search

When you run a saved search, the search uses the same parameters but returns updated results.

To run a saved search:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Saved Searches** link in the content pane. Otherwise, skip this step.
3. Select the saved search and select **File > View**.

   DCM runs the search.

   Tip: To stop the search, in the result page, click **Stop** .
4. See View search results, page 197.

View the results of a saved search but do not relaunch the search

To view the results of a saved search:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Saved Searches** link in the content pane. Otherwise, skip this step.
3. Double-click any saved search for which the **Results** column indicates that the search turned up one or more items.

Note: If the results were not saved with the search then the search will be relaunched when you double-click it. If you don't want to possibly relaunch the search, use the context menu. To do so, right-click the saved search and select **View saved results**. This command is only available when results were saved with the search.

Edit a saved search

To edit a saved search:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Saved Searches** link in the content pane. Otherwise, skip this step.
3. Select the search and select **File > Edit**.

4. Set values as described in Enter values for an advanced search, page 193 and then click **Search**.
5. Click **Save Search** to apply the changes. You should also save your search if you modified the results display.
6. Click **OK**.
7. Click **Overwrite**.

Copy a saved search

To copy a saved search:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Saved Searches** link in the content pane. Otherwise, skip this step.
3. Select the search and select **File > Edit**.
4. Set values as described in Enter values for an advanced search, page 193 and then click **Search**.
5. From the results page, click **Save Search**.
6. To save the search as a copy with a different name, type a new name for the search. Otherwise the search is saved as a copy with the same name.
7. Edit additional information as needed.
8. Click **OK**.
9. Click **Save as New**.

Search templates

Search templates are available only if your organization uses the Extended Search option and has set up search templates.

Like saved searches, search templates are designed to be easily reused. A search template is a predefined search for which some search values are fixed and other search value can be defined by the current user. Search templates can be private or public. In the Saved Searches node, public and private search templates are distinguished by one of the following icons:

-  means this search template is public and accessible to any user.
-  means you are the only one that can access this search template .

Search templates are displayed outside of the Saved Searches node with a general icon: .

This section includes these:

- Run a search from a search template, page 207
- Create a search template, page 207
- Edit a search template, page 208
- Modify a search template definition, page 208
- Copy a search template, page 209

Run a search from a search template

You can run a search from a search template created by you or by another user.

To run a search based on search template:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Search templates** link in the content pane. Otherwise, skip this step.
3. Select the search template and select **File > View**.
4. If prompted for search values, enter values as appropriate.
5. Click **Search**.

   Tip: To stop the search, in the result page, click **Stop** .
6. See View search results, page 197.

Create a search template

A search template is a predefined search in which you can change certain search values each time you run it. For example, a search template could search for invoices dated this month for the customer you choose. You could run the search template to retrieve invoices for numerous different customers.

A search template cannot include the OR operator.

To create a search template:

1. Run an advanced search (see Run an advanced search, page 193) and select the properties and values to include in the search template. You must select at least one property and value combination.

To include a property for which the user will set the search value, set a temporary value for that property. You can make that property editable later in this procedure.

2. From the search results page, click **Save template** .
3. Type a name for the search template.
4. To allow other users to access this search, select **Make this search available to others**.
5. To allow users to change values for a property, use the arrow to move that property to the **Input fields** box.

   To keep a user from changing the value of a property, leave the property in the **Fixed values** box.
6. Click **Save**.

Edit a search template

To edit a search template:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Search templates** link in the content pane. Otherwise, skip this step.
3. Select the search template and select **File > Edit**.
4. To allow other users to access this search, select **Make this search available to others**
5. To allow users to change values for a property, use the arrow to move that property to the **Input fields** box.

   To keep a user from changing the value of a property, leave the property in the **Fixed values** box.
6. Click **Save**.

Modify a search template definition

To modify the search template definition:

1. In the navigation pane, click **Saved Searches**.
2. If necessary, click the **Search templates** link in the content pane. Otherwise, skip this step.
3. Right-click the search template and select **Edit Definition**.
4. Modify the search values. See Enter values for an advanced search, page 193.

5. Click **Search**.

   Tip: To stop the search, , in the result page, click **Stop** .

6. From the search results page, click **Save template** .

7. Type a name for the search template.

8. To allow other users to access this search, select **Make this search available to others**

9. To allow users to change values for a property, use the arrow to move that property to the **Input fields** box.

   To keep a user from changing the value of a property, leave the property in the **Fixed values** box.

10. Click **Save**.

11. In the navigation pane, click **Saved Searches**.

12. Select the search template and select **File > Edit**.

13. In the **Name** field, type a new name for the search template.

14. Edit the description of the template. By default, this field is updated with the search terms but you can modify it. The description is visible as a column in the **Saved Searches** node.

15. Click **Save**.

Note: Unlike saved searches, when you save a template after a modification, the old version is not overwritten: a new template is created.

Copy a search template

To copy a search template:

1. In the navigation pane, click **Saved Searches**.

2. If necessary, click the **Search templates** link in the content pane. Otherwise, skip this step.

3. Select the search template and select **File > Edit**.

4. In the **Name** field, type a new name for the search template.

5. Edit the description of the template. By default, this field is updated with the search terms but you can modify it. The description is visible as a column in the **Saved Searches** node.

6. Click **Save**.

Set search preferences

To set your search preferences:

1. Select **Tools > Preferences**.
2. Select the **Search** tab.
3. In the **Default Search Locations** area, do one of these:
   - To set your default search locations to the repositories in your default repositories list, select **My Favorite Repositories**.
   - To set your default search location to the repository you are currently viewing, select **Current repository only**.
   - To set your default search locations to other locations, select **Others**, and then **Select**. In **Available Repositories** or **Available Sources**, navigate to and select a specific location, and then click the appropriate arrow to add the location. Add as many locations as appropriate. The location can be a repository, a cabinet or a folder. **Available Sources** is displayed only if DCM is configured to search external sources.
4. In the **Smart Navigation** area (if available), select whether to enable the grouping of search results in clusters according to a specific properties.

   If you select **Enabled**, select the properties used for smart navigation by clicking **Edit** and then selecting properties in the drop-down lists. To add or remove properties, use the appropriate buttons.

   Smart navigation is available only if DCM includes the Extended Search option and is configured for smart navigation.
5. To save your changes, click **OK**.

To select the columns displayed in the result pages, set your column preferences as described in Select the columns that appear in lists, page 153.

To retrieve the default configuration of the search locations and of smart navigation, click **Restore defaults**.

Chapter 18

Inbox

This chapter includes:

- Inbox overview, page 211
- Open a task or notification, page 212
- Perform a task, page 212
- Complete a task, page 213
- Accept a task that has been assigned to multiple users, page 214
- Reject a task, page 214
- Delegate a task, page 215
- Repeat a task, page 215
- Change your availability for tasks, page 216
- Work queue tasks, page 216

Inbox overview

Your Inbox contains tasks and notifications. Tasks are electronic assignments. Notifications are messages that an event has occurred.

A task can be assigned to you manually by another user or automatically by a business process known as a workflow. A workflow is a series of tasks assigned sequentially from user to user. When you complete a workflow task, the workflow automatically sends a task to the next user in the workflow.

In some cases, a task that appears in your Inbox might be assigned not only to you but also to other users. In such a case, the first user to accept the task becomes the one who performs it. The task is automatically removed from the other users' inboxes.

If your organization uses work queues, you can request task assignments, as described in Work queue tasks, page 216.

A task can include attached files that you are asked to edit or review. Attached files continue to the next user in the workflow.

Open a task or notification

To open a task or notification:

1. Click **Inbox**.
2. Click the name of the task or notification.
3. Do one of these:
   - To close the task or notification, click **Close**.
   - To perform an action, see the appropriate procedure:
     — Perform a task, page 212
     — Complete a task, page 213
     — Accept a task that has been assigned to multiple users, page 214
     — Reject a task, page 214
     — Delegate a task, page 215
     — Repeat a task, page 215
     — Select a task from the queue, page 218

Perform a task

To perform a task:

1. In your Inbox, open the task by clicking its name.
2. On the **Info** tab, do these:
   a. The **Info** tab might display a form customized to a particular task in your organization. If so, enter the appropriate information. Ask your administrator for details.

      If the **Info** tab includes a link for creating a new form for the next user in the task, click the link and follow the instructions on the screen.

   b. To perform operations on attached files, use the standard procedures for those operations.

   c. To attach additional files, click **Add Attachments**, select the files, and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

   d. If the **Time** and **Cost** fields appear, record your time and cost to perform the task.

3. In the **Comments** tab, add comments as follows:

   a. Click **Add** or **Edit**.

   b. In the **Comment** field, type a comment.

   c. If these options appear, select one:

      - **For subsequent recipients**

        Sends the comment to all users performing *all* future tasks in the workflow.

      - **For next recipients only**

        Sends the comment only to the users performing the next task in the workflow.

   d. Click **OK**.

   e. Repeat these steps for as many comments as needed. To remove a comment, click **Remove**.

4. Select the **Progress** tab to view task's history.

5. Do one of these:

   - To mark the task as finished, see Complete a task, page 213.
   - To close the task without marking it as finished, click **Close**.

     The task closes. You can reopen it to mark it as finished at a later time. When you are ready to mark the task as finished, see Complete a task, page 213.

Complete a task

Completing a task sends it to the next user or activity in the workflow. Any changes you make to attached files travel with the task if the version of the attached files and the checked in files are the same version.

To complete a task:

1. Open the task by selecting it in your Inbox.

2. Click **Finish**.

3. If prompted for a password, type your password.

4. Click **OK**.

5. If prompted to select the next performers, do these:

   a. Click **Click To Assign** next to the task for which to select performers.

b. In the selection dialog box, select one or more performers and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

c. Click **OK**.

6. If prompted, select the next task to forward from the **Select Next Forward Tasks** list.
7. Click **OK**.

Accept a task that has been assigned to multiple users

When a task has been sent to a group, the first user to accept the task is the one who performs it. If you accept such a task, it is automatically deleted from the other users' inboxes.

To accept a task that has been assigned to multiple users:

1. Click **Inbox**.
2. Select the task to accept.
3. Click **Accept**.
4. Do one of these:
   - To close the task, click **Close**.
   - To perform an action, see the appropriate procedure:
     — Perform a task, page 212
     — Complete a task, page 213
     — Reject a task, page 214
     — Delegate a task, page 215
     — Repeat a task, page 215

Reject a task

If the workflow allows, you can reject a task. When you do, the task goes to another step as defined in the template. If the task is directed to a group of users, it is deleted from your Inbox. Depending on the template definition, the task may or may not remain in the Inboxes of the other users in the group.

To reject a task:

1. In your Inbox, open the task by clicking its name.
2. Click **Reject**.
3. If required, type a message explaining the reason for the rejection.
4. Click **Next**.
5. To select other tasks to reject, do so from the **Select Next Reject Tasks** list.
6. If required, type your password in the **Sign Off Required** field to electronically sign off the task.
7. Click **OK**.

Delegate a task

If the workflow allows, you can give another user the responsibility of performing a task that originally had been assigned to you.

To delegate a task:

1. In your Inbox, open the task by clicking it.
2. Click **Delegate**.
3. If prompted to specify the user to whom to delegate the task, do these:
    a. On the task's line item, click **click to assign**.
    b. In the selection dialog box, select the user to whom to delegate and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
4. Click **OK**.

Repeat a task

If the workflow allows, you have the option of asking another user or group to repeat a task that you have just completed.

To repeat a task:

1. In your Inbox, open the task by clicking it.
2. Click **Repeat**.
3. On the task's line item, click **click to assign**.

4. In the selection dialog box, select the user to whom to delegate and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

5. Click **OK**.

Change your availability for tasks

The top of your Inbox displays your availability to receive tasks.

To change your availability to receive tasks:

1. Click **Inbox**.

2. At the top of your Inbox, click one of these:
   - **I am available**
   - **I am currently set to unavailable**

3. Do one of these:
   - To make yourself available, deselect the checkbox that changes your status to unavailable.
   - To make yourself unavailable, select the checkbox that changes your status to unavailable, then click **edit**, then select another user to receive your tasks, and then click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

     When you make yourself unavailable, this only affects future tasks that have been marked as delegable. This option does not affect tasks that are currently in your Inbox or any future tasks that do not allow delegation.

Work queue tasks

Work queues hold tasks that are to be performed by available processors who are assigned to the queue. When a task enters the system, the server assigns it to a work queue based upon the task and the work queue properties. Processors assigned to work on that queue receive tasks in their Inboxes in priority order. Users with the "advance queue processor" role can selectively pull items from their queue regardless of their priority and without waiting for the item to be assigned to the processor’s Inbox.

This section includes these:

- Manage tasks in your queue Inbox, page 217
- Get the next available task in a work queue , page 217
- Select a task from the queue, page 218

Manage tasks in your queue Inbox

Work queue processors have different options available to help manage tasks and the workload in their work queue Inbox.

To suspend a task in your queue:

If you are working on task and need to wait for some other supporting document or task to take place, you can suspend the task. As a reminder, you assign a date for the task to be unsuspended and active back in your queue. The system runs a job that unsuspends the task based on this date. You can also manually unsuspend a task.

1. Select the task to suspend
2. Select **Tools > Work Queue Management > Suspend**
3. Select the date and time that the task will no longer be suspended.
4. Click OK.

   The status of the task appears as paused.

To unsuspend a task in your queue:

1. Select the task to unsuspend
2. Select **Tools > Work Queue Management > Unsuspend**.

   The status of the task appears as acquired.

To unassign and reassign a task in your queue:

1. Select the task to unassign.
2. Select **Tools > Work Queue Management > Unassign**.

   The system returns the task to the work queue and the status of the task appears as dormant until you reassign the task to another user.
3. Select **Tools > Work Queue Management > Reassign**.
4. Select a user to assign to the task.
5. Click **OK**.

Get the next available task in a work queue

If your organization has implemented work queues, you can acquire the next task in the queue without having to wait for a supervisor or the system to assign it to you. Your next task is the task of the highest priority from among your assigned work queues. You can select your next task manually from an option in the Inbox menu or you can choose to have your next task appear in your Inbox automatically when you reject or complete your current task.

Items that are automatically sent to your Inbox by the system appear as not assigned in the assigned column of the worklist. Items that have been manually assigned by the queue manager show yes in the assigned column. Use the label in this column to distinguish how the task has been sent to your Inbox.

To manually retrieve your next work queue task:

1. In your **Inbox**, select **Tools > Work Queue Management > Get Next Task**.

   The next task appears at the top of the task list in your Inbox.

To turn on automatic receipt of work queue tasks:

1. In your **Inbox**, select **Get next task automatically**.

To turn off automatic receipt of work queue tasks:

1. Close any open work queue tasks.
2. In your **Inbox**, clear **Get next task automatically**.
3. Re-open your currently assigned task and finish it, so that you do not have an unfinished task in your Inbox .

Select a task from the queue

Processors with the queue_advance_processor role have the ability to view the work queue tasks that they are eligible to work on and acquire them regardless of their priority. They also have access to the Work Queue node in the main directory tree that shows all of their assigned work queues displayed as separate Inboxes. From these Work Queue Inboxes, they can select any unassigned tasks that they are eligible to work on based on their skill set or any unassigned tasks that do not require any skills.

Processors with the queue_advance_processor role have the option to filter the Work Queue Inbox view. Selecting **All Eligible Tasks** shows all unassigned tasks that the processor is qualified or eligible to work on. **All Tasks** shows the tasks that the processor is eligible to work on, as well as any tasks that the processor has already acquired or that have been assigned by the queue supervisor.

Users with the queue_advance_processor role cannot assign tasks to other queue processors or pull a task that is already assigned to or has been pulled by another queue processor.

To acquire an unassigned task:

1. Navigate to the Work Queues node in the directory tree, and click the work queue to open.
2. Select the filter to show **All Eligible Tasks** or **All Tasks** in the Work Queue Inbox.
3. Select one or more tasks to acquire.
4. Select **Tools > Work Queue Management > Get Task**.

   The system assigns the tasks to you and sends them to your Inbox. If you select only one task, the system opens the task in Task Manager so that you can work on it immediately.

   Tip: This action is also available through the **Task Manager** using the **Get Task** button that is available to advance queue processors. This option enables advance queue processors to examine the task before deciding to pull it. Using the **Get Task** button from within the task in Task Manager assigns the task to you and refreshes the page, enabling you to work on the task immediately.

Chapter 19

Workflows and Quickflows

This chapter includes:

- Start a workflow, page 221
- Send a quickflow, page 223
- View workflows, page 224
- Pause a workflow, page 224
- Resume a paused workflow, page 225
- Stop a workflow, page 225
- Email the workflow supervisor or a workflow performer, page 226
- Process a failed task in a workflow, page 226
- Change the workflow supervisor, page 226
- Save workflow information as a Microsoft Excel spreadsheet, page 227
- View aggregated report for workflow performance, page 227
- Create a workflow template, page 228

Start a workflow

A workflow is an automated process that passes files and instructions between individuals in sequence, to accomplish specific tasks. When a user is assigned a workflow task, the task appears in the user's Inbox.

Workflows can include automatic tasks that the system performs, such as the execution of scripts. Automatic tasks allow the integration of workflows and lifecycles for example allowing promotion of files to new lifecycle states.

When you start a workflow, you select the workflow template that includes the sequence of tasks to be performed. Multiple workflows can start simultaneously from the same template. A workflow template might allow you to direct a task to a group of users, in which case the first user who accepts the task performs it and the task is removed from the other users' Inboxes.

When you start a workflow, you can attach files. File are available for attaching if they are already attached elsewhere, locked by another user, or in an advanced lifecycle state. Remember that when you attach files in multiple languages, a task recipient's filters might show only the files that match that user's language.

To start a workflow:

1. Do one of these:
   - To start a workflow by first selecting the type of workflow, select **Tools > Workflow > Start**.
   - To start a workflow by first selecting one or more files, navigate to the files and select them, then select **Tools > Workflow > Start Attachments**.
2. Select the workflow template and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
3. Click **OK**.
4. On the **Info** tab, in the **Workflow Description** field, type a name for the workflow.
5. To attach a file to the workflow, do these:
   a. On the **Info** tab, click **Add**.
   b. To locate the files to attach, click the appropriate tab, then navigate to the files within that tab. Tabs that correspond to repository nodes are navigated in the same way as the repository nodes.
   c. Click **Add** at the bottom of the page.
   d. If you attached a file that has links to other files, you can add the linked files by selecting **Automatically Add Linked Objects**.
   e. To remove an attached file, click either **Delete** or **Remove**.
6. To create and attach a new form based on an existing form template, do these:
   a. On the **Info** tab, click the name of the form or package, depending on what appears.
   b. Select the form template upon which to base the new form, and click **OK**.
      The form's fields appear in the **Info** tab.
   c. To remove a form, click **Remove**.

   If you remove a newly created form or cancel the workflow, the form is deleted automatically.
7. If the workflow includes the **Performers** tab, you can specify users for one or more tasks. Do these:

   a. Click **Select** next to a task that must be performed.
   b. In the selection dialog box, select the user or group to perform the task and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

8. In the **Comments** tab, do these:
   a. Click **Add**.
   b. Type your comments.
   c. Select the users to receive the comment:
      - **For subsequent recipients**

        The comment is sent to all remaining users in the workflow.
      - **For next recipients only**

        The comment is sent only to the users who receive the next task assignment in the workflow.
9. Click **OK**.
10. Click **Finish**.

Send a quickflow

A quickflow is a single task you send to one or more users. If you send a quickflow to multiple users, you can select whether each user receives the task simultaneously or sequentially.

To send a quickflow:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.
2. Select **Tools > Workflow > Quickflow**.
3. To select the users or groups to whom to send the quickflow, click **Select user/group**, then select the users or groups, and then click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
4. In the **Priority** drop-down list, select the priority.
5. In the **Instructions** field, type any messages for the users.
6. To receive a notification when a user completes the review, select the **Return to Me** checkbox.
7. To require each user to enter an electronic signoff when completing the review, select the **Require signoff** checkbox.

8. Click **OK**.

View workflows

You can view workflows through either Workflow Reporting or through My Workflows. This topic describes both.

To view workflows through Workflow Reporting

1. Select **Tools > Workflow > Workflow Reporting**.

   The list of workflows appears. To reformat the list, click **Edit Workflow Report** and choose from the available options.

2. To view more information about a workflow, select the workflow and then select any of these:
   - To view the workflow template, select **Tools > Workflow > View Details > Map**.
   - To view the progress of the workflow, select **Tools > Workflow > View Details > Summary**. To narrow or broaden the list, select the appropriate filter at the top of the page.
   - To view a record of events for the workflow, select **Tools > Workflow > View Details > Audit**.

To view the workflows you own via My Workflows

1. Select **Tools > Workflow > My Workflows**.

   My Workflows displays the workflows you own but does not display the workflows owned by groups you belong to. To view workflows owned by a group, use the procedure To view workflows through Workflow Reporting, page 224.

2. To view a specific workflow, select the workflow, then select **File > View**.

Pause a workflow

When you pause a workflow, you temporarily stop it but expect to reinstate it at a later time. For example, you can pause a workflow to modify the workflow template. Once your changes are complete, you can resume the workflow to continue from the point at which it was paused.

To pause a workflow:

1. Select **Tools > Workflow > Workflow Reporting**

Tip: Alternately, you can select **Tools > Workflow > My Workflows**.

2. Select one or more workflows.
3. Select **Tools > Workflow > Pause Workflow**.
4. If prompted to confirm the pause, click **OK**.

Resume a paused workflow

When you resume a paused workflow, the workflow starts where it was paused. You can resume a paused workflow, but you cannot resume a stopped workflow.

To resume a paused workflow:

1. Select **Tools > Workflow > Workflow Reporting**

   Tip: Alternately, you can select **Tools > Workflow > My Workflows**.
2. Select one or more workflows.
3. Select **Tools > Workflow > Resume Workflow**.
4. If prompted to confirm, click **OK**.

Stop a workflow

You can stop a workflow at any point in its progress. A stopped workflow cannot be restarted.

To stop a workflow:

1. Select **Tools > Workflow > Workflow Reporting**

   Tip: Alternately, you can select **Tools > Workflow > My Workflows**.
2. Select one or more workflows.
3. Select **Tools > Workflow > Stop Workflow**.
4. To ensure that the workflow is automatically deleted from your workflows list, select the **Aborted workflow will be deleted** option.
5. If prompted to confirm, click **OK**.

Email the workflow supervisor or a workflow performer

To email the workflow supervisor or a workflow performer:

1. Select **Tools > Workflow > Workflow Reporting**

   Tip: Alternately, you can select **Tools > Workflow > My Workflows**.

2. Select the workflow.
3. Select one of these:
   - **Tools > Workflow > Email Supervisor**
   - **Tools > Workflow > Email Performers**

   Your email application opens a new email message with the email addresses filled in.

4. Type your message and send the email.

Process a failed task in a workflow

If you are workflow supervisor and receive notice that an automatic task has failed, you can perform one of the procedures here.

To retry a failed automatic task:

1. From your Inbox, open the failed automatic task.
2. Click **Rerun**.
3. Click **OK**.

To complete a failed automatic task:

1. From your Inbox, open the failed automatic task.
2. Click **Complete**.
3. Click **OK**.

Change the workflow supervisor

Each workflow has a workflow supervisor who can modify, pause, or stop an active workflow.

To change the workflow supervisor:

1. Select **Tools > Workflow > Workflow Reporting**.
2. Select the workflow.
3. Select **Change Supervisor**.
4. Select either **All Users** or the group to which the new supervisor belongs.
5. Select the user who will be the new supervisor for the workflow.
6. Click **OK**.

Save workflow information as a Microsoft Excel spreadsheet

The availability of this procedure depends on your organization's configuration of DCM.

To save workflow information as a Microsoft Excel spreadsheet:

1. Select **Tools > Workflow > Workflow Reporting**.
2. Click **Save Report**.
3. Type a name for the information you are saving.
4. Select a location to which to save.
5. Click **OK**.

View aggregated report for workflow performance

To view reports, you must have the process_report_admin role.

To view historical reports:

1. Select one of these:
   - **Tools > Workflow > Historical Report > Process**
   - **Tools > Workflow > Historical Report > User**
2. In the **General** tab, select the duration and other parameters for which to run the report.
3. Click **Run**.

4. Click the **Results** tab, to view the report.
5. To view additional information, click a process, instance, or user.
6. To save the report so it can be rerun, click **Save**.

Create a workflow template

To create a new workflow template, select **File > New > Workflow Template** to open Workflow Manager. Use that application's Help for instructions on creating the new workflow template.

Chapter 20

Work Queues

This chapter includes:

- Work queue roles, page 229
- Set up a new work queue, page 231
- Set up work assignment matching, page 231
- Work queue policies, page 234
- Define a queue category, page 238
- Define a work queue, page 239
- Define work queue override policies, page 240
- Manage work queue users, page 241
- Monitor work queues, page 245
- Create business calendars, page 250

Work queue roles

Work queues hold tasks that are to be performed by available users who are assigned to the queue. Work queue users receive tasks in their Inboxes. Work queue users are assigned tasks either automatically by the server or manually by another user. Users with the queue_advance_processor role can choose to pull items from their queue regardless of their priority and without waiting for the item to be assigned to their Inbox.

Work queue users are also referred to as *processors*.

Work queue managers monitor work queues to see which queues have overdue tasks that need to be addressed or which queues have too many tasks in the queue. They can also add, edit, and assign skill profiles to individual work queue users.

Work queue administrators create work queues, assign users to work on queue tasks, define the skill profiles that enable the application to assign tasks to the appropriate processor, and can add, edit, or assign skill profiles to the individual work queue users.

Additionally, the administrator or manager can use the Work Queue Monitor to view the tasks in the queue, the name of the processor assigned to the task, the status of the task, when the task was received, and the current priority of the task.

To access work queues, you must belong to one of the roles described in Table 20, page 230.

Table 20. User roles for work queues

Role	What this role can do
Queue_processor	Works on items that are assigned by the system from one or more work queue inboxes. Queue processors can request work, suspend and unsuspend work, complete work, and reassign their work to others.
Queue_advance_processor	Works on items that are assigned by the system from one or more work queue inboxes. Additionally, selects tasks to work on from one or more work queue inboxes.
Queue_manager	Monitors work queues, assigns roles to queues, and assigns users to work on queue items. Queue managers can reassign and suspend tasks. Queue managers who have CREATE_GROUP privileges can create work queues.
Queue_admin	Creates work queues and queue policies. Members of the queue_admin role *do not* by default have the administrator role. Queue administrators who have CREATE_GROUP privileges can create work queues.
Process_report_admin	Runs historical workflow reports from the Workflow menu.

Set up a new work queue

To set up your first work queue, you perform these procedures in the order listed here:

- Create the users and groups that you will be using to process the work queues.

  The chapter on user management provides more details on setting up users and groups.
- Set up work assignment matching.

  Set up work assignment matching, page 231 provides detailed information on work assignment matching.
- Create the queue policies you will need for the queue.

  Work queue policies, page 234 provides more specifics on queue policies.
- Create the queue categories.

  Define a queue category, page 238 explains how to create queue categories.
- Create the work queue.

  Define a work queue, page 239 provides more specifics on defining work queues.
- Create override policies.

  Define work queue override policies, page 240 explains the optional step of defining override policies for work queue policies.
- Create the process templates used for the work queue in Process Builder.

  When a work queue is the performer for a task, the check box to delegate the activity's work to someone else must be selected in the activity definition.

  Procedures to define process templates are found in the *Documentum Process Builder User Guide*.

Set up work assignment matching

When you are creating a work queue, your first task is to configure the work assignment matching filters by defining the skills or properties that are necessary to process tasks in the work queue. The *work assignment matching filter* lists the abilities, properties, or expertise necessary to perform tasks in a work queue. The *processor profile* lists which of these filters has been assigned to a work queue processor. When the processor pulls the next task or when a manager assigns a task, the system then uses the skills defined in the work assignment matching filter to qualify a processor based upon the skills or properties required to work on a task.

If a work assignment matching filter is *not* set up for a work queue, than any queue processor in the work queue can work on the tasks regardless of qualifications.

When a workflow process runs and the system creates a new item for a work queue, it checks the work queue skills that are defined in the task based on the activity mapping rules set up in the activity template in Process Builder. (Once that task is created, there is no way to change the associated required skills.) The system compares the skills required by the task against the skills listed for users in the work queue and uses this comparison for both the Get Next Task and Assign Task functions.

For example, the work queue loan_underwriter_queue has three required skills defined for it: auto loans, commercial loans, and home loans. When an auto loan application comes through the workflow, the system evaluates the skill association stored in the activity template, and resolves the skill value for an auto loan. It then sends the loan application to the loan_underwriter_queue. When a supervisor assigns a task or when a processor tries to pull the task, the server ensures that this processor has auto loans listed as a skill before allowing the processor to acquire the task. A particular task associated with a queue can require one or more skills to complete. A processor may have several skills related to a work queue.

Set up skill profiles in the process template

When you create an activity that is performed by a specific work queue, you select the work queue name and set the required skills for the activity on the Performer tab in the Activity Inspector. You can use process data to map to the values of the required skill. When you map a skill, it is added to the task and at runtime the system uses it to qualify a processor for the task.

See *Documentum Process Builder User Guide: Working with Activities*.

Define work assignment matching filters

Each work assignment matching filter contains the skill definitions that enable the system to match a processor with a task based on the skills required by the task and the abilities or expertise of the processor. When you create the filter, you define the possible skill values, display labels, data types, and operators used by the system to compare the list of processor skills against the required job skills and assign the task to an appropriate processor.

The process template in Process Builder must have these skills defined for the task, as well.

Users with the queue_admin role can create, delete, or modify queue matching filters. Users with the queue_manager role can view the settings of the matching filters only.

To define work assignment matching filters:

1. Navigate to **Administration > Work Queue Management > Work Assignment Matching > Matching Filters**.
2. Do one of these:
   - To create a new filter, select **File > New > Work Queue Skill Info**.
   - To edit an existing filter, select the filter, and from the right-click menu, select **Properties** or select the filter and then select **View > Properties > Info**
3. Type a name for the filter.
4. Type a description for the filter.
5. Select the data type of the available skill values from the **Data Type** list box.

   Valid values are **Integer**, **String**, and **Double**.

   The value you select here determines the type of comparator that is available in the **Comparison Operator** list box.
6. Select a comparison operator from the list box.
7. Type in a **Value to be used in the comparison** and a display label based on the data type you selected.

   For example, to match work based on processing a conventional loan, type **conv** in the string column to represent a conventional loan and type **conventional loan** as the display label.
8. Click **Insert** to add more rows to the table, as necessary to define the varying types of work matching comparison values.
9. Select **Processors can have more than one skill for this filter** to allow a processor to have more than one skill associated with this filter.

   For example, a processor could have skills for processing both real estate loans and automobile loans.
10. Click **OK**.

Add work assignment matching filters to a work queue

Add work assignment matching filters to a work queue to define the skill set for the queue and for its users. All users in the work queue must have their skills updated each time a new filter is added to the queue. After you add the work assignment matching filter, the system prompts you to define the related skills for each processor in the queue.

When a skill is removed from the work queue, the system checks for the skill in existing tasks for this work queue and removes them immediately.

To assign work assignment matching filters to a work queue:

1. Navigate to **Administration > Work Queue Management > Work Queues** and select a work queue.
2. Right-click the queue and select **Properties** or select **View > Properties > Info** to display the Work Queue Properties page.
3. Under Work Assignment Matching Filters, click **Add**.
4. Select the skills you are adding to work queue.
5. Click the add arrow to move the skills to the content selection area of the page.
6. Click **OK.**

   The system prompts you to select the skills for each individual user in the queue.
7. Select the skills for each user, and click **Next**.

   Note that skill profiles are not available for groups.
8. When you have selected the skills for each user, click **Finish**.

To remove work assignment matching filters from a work queue:

1. Navigate to the work queue and select it.
2. Select **View > Properties > Info**.
3. In the Work Assignment Matching Filters table, select the filter that is related to the skills to be changed.
4. Click **Remove**.
5. Click **OK**.

When the system removes the matching filter from work queue, the corresponding skill values set up for users in the work queue are not automatically removed. The skill properties for the user remain until you remove them from the Processor Profile page for each processor.

Work queue policies

A work queue policy contains the logic that the system uses to track and manage tasks in the work queue. This logic enables the system to assign an initial priority and age the priority of the task based on different values you set up in the policy.

The queue policy contains settings for priorities, management settings, thresholds, and other management functions. When new item comes in for workflow, the server identifies the activity as a work queue item, checks the priority value in the policy, and assigns initial priority to the item. After the task is in the queue, the aging job increases the priority incrementally based upon the policy until the task is worked on.

You also set up threshold values to trigger notifications to the queue manager when high priority items are not being processed or when a specific number of tasks are waiting in a work queue.

With a work queue policy, you can define settings that move an unworked task to a higher priority level when the priority aging job runs.

You can also flag a percentage of tasks to be routed for quality checks.

Priorities of tasks

For most work queue users, work items appear in the Inbox based on their priority—the highest priority items are assigned to be worked on before lower priority work items. Priority and aging settings are essential elements in the processing of work queue tasks. When the system creates a new work item, the server identifies the task as a work queue item and checks for logic to enable it to assign an initial priority to the item. After the task is in the queue, an aging job increases the priority of the task based upon other logic, which moves the task higher in the Inbox until the task is worked on. Priority escalation may trigger the queue administrator to redistribute tasks or reallocate resources between work queues.

The priority level at which a task first appears and the speed at which it increases in priority can be set either in the work queue policy or in the activity template for the task. For example, you set the initial priority for new tasks in a queue to **1**, which means that all new tasks begin with a priority of 1. If you have set the Increment Priority to 10, then whenever the dm_QmPriorityAging job runs, the priority increases by a factor of ten, if the task has not been worked on. In this example, the task has remained in the queue and the dm_QmPriorityAging job has run three times, increasing the priority to 31. The maximum priority field is set to 30, so the system sends a notification to the queue managers group, warning that the task has surpassed its maximum priority and needs attending to.

Using a work queue policy, the queue administrator or queue manager can specify the initial priority of the task and the frequency and percentage at which it increments based on different values you set up in the policy. For more complex initialization and aging scenarios, you use Documentum Application Builder to create a *priority module* that contains logic to dynamically calculate and update the priority based on process data or other properties belonging to the process. A priority module can be associated with a work queue policy or a Process Builder activity template.

Set dynamic priority and aging logic for tasks

There may be situations where both the initial priority and the amount that priority increments need to be calculated dynamically. In these cases, you create a *priority module* that the system uses instead of the work queue policy to set priority and aging logic. A priority module can be selected when creating the work queue policy. The *Documentum Process Builder User Guide* provides information on creating a priority module.

Process data can be used to set the initial priority and increase the priority based on values in the workflow. For example, if a loan application belonging to a preferred customer comes through a work queue, it can be immediately placed at a higher priority value than a loan application from other customers. In addition, if the loan request is for a greater amount or comes from a preferred loan broker, then the priority can be increased at a higher rate, ensuring that the queue supervisor is alerted if the task is not completed within a specified period of time. This kind of logic can be especially useful to increase the priority of a task as it nears a deadline or some other time restriction—the priority is increased more rapidly as the deadline approaches, pushing the task up the queue at a higher rate.

Create or modify a queue policy

Each work queue can have one policy. If you associated an override policy with a document being routed in the workflow, the system uses the override policy rather than the work queue policy for that item.

Users with the queue_admin role can create or modify queue policies.

To create or modify a work queue policy:

1. Navigate to **Administration > Work Queue Management > Policies > Work Queue Policies**.
2. Navigate to the category where you want to either locate a new policy or edit an existing one.
3. Do one of these:
   - To create a new policy, select **File > New > Work Queue Policy**.
   - To edit an existing policy, select the policy and then select **View > Properties > Info**.

     You may edit the properties of a policy, but the policy name remains a read-only field. To rename the policy, you must delete the existing policy and recreate the same policy with the new name.
4. Type a name for the policy.

5. Define these settings:
   - **Threshold**

     The number of unfinished tasks in the queue at which notifications are sent to the queue manager warning that the number of tasks in the queue is high. Notifications are triggered when the server runs the dm_QmThresholdNotification job.

     The queue managers group is specified in the queue definition and defines who receives the notifications.
   - **Max Priority**

     When a task in the work queue reaches this level, notifications are sent to the queue managers group warning that there is an important task not being processed. Notifications are triggered when the server runs the dm_QmPriorityNotification job.
   - **Initial Priority**

     The level of importance that is assigned to a newly created task when the work queue uses this policy. When a task remains in the queue without being worked on, the system adds the number specified in the **Increment Priority** field to this initial number each time the dm_QmPriorityAging job runs.
   - **Increment Priority**

     The value by which the system increments the priority level of tasks that are still in the queue each time the system runs the dm_QmPriorityAging job. It is added to the initial priority each time that the aging job runs.
   - **Calculate priorities dynamically**

     To use a priority module to set the initial priority and increase its priority when the aging job runs, select the checkbox and choose a priority module from the list-box. Set dynamic priority and aging logic for tasks, page 236 provides more information on priority modules.
   - **Percent Quality Check**

     The percent used to randomly decide if the work item must be routed to another processor for a quality assurance check. The Queue Task Rework Decision in Process Builder uses the percent quality check setting to determine if the work item is routed for quality check.
6. Click **OK**.

To delete a work queue policy:

1. Select the queue policy to delete.
2. Select **File > Delete**.

If the policy is in use and is referenced by other work queues or work items, the system will not delete the work queue policy.

3. Click **OK**.

Define a queue category

Queue categories are like folders in which you organize your work queues. Categories can be designed to resemble your business model's hierarchy enabling you to drill though different categories to locate your work queue in a logical representation of your organization. Work queue categories must be created before creating the related work queues.

Users with the queue_admin or queue_manager role can create and edit categories.

To create a queue category:

1. Navigate to **Administration > Work Queue Management > Work Queues**.
2. To nest the new category within an existing category, navigate to that existing category.
3. Select **File > New > Work Queue Category**.
4. Type the name of the new category.
5. If appropriate, type a description of the new category.
6. Click **OK**.

To delete a queue category:

1. Navigate to **Administration > Work Queue Management > Work Queues**.
2. Select the queue category to delete.
3. Select **File > Delete**.

   The system warns you that this operation cannot be undone.

   If the category is in use and is referenced by other work queues, the system will not delete the work queue category.
4. Click **OK**.

Define a work queue

Work queues are organized and listed under work queue categories. Before creating a work queue, you should first create a queue category and queue policy. Define a queue category, page 238 and Work queue policies, page 234 provide more specifics on these topics.

Users with the queue_manager role and with CREATE_GROUP privileges can create work queues.

To create a work queue:

1. Navigate to **Administration > Work Queue Management > Work Queues**.
2. Navigate to the work queue category where you want the new work queue to be located.
3. Select **File > New > Work Queue**.

   The system displays the Work Queue Properties page.
4. Type the name of the new work queue using lowercase letters. Do not use quotation marks in the work queue name.
5. Type a description of the new work queue, if necessary.
6. By default, you are assigned as the queue manager. To change the queue manager, click **Edit** next to **Queue manager**, select a different user, and click **OK**.
7. Select a policy name to apply to the queue.

   The settings for the queue policy appear as read-only fields on the page, except for the policy manager name.
8. To change the name of the policy manager, click **Edit**.

   The name of the policy manager appears by default.
9. In the **Work Assignment Matching Filters** area, click **Add** to select skills that are required for the work queue. The system uses these skills to filter and assign tasks to the queue.

   The system displays a page where you can select specific skills to apply to the work queue.
10. Select the skills you are adding to work queue. Click the add arrow to move the skills to the content selection area of the page.
11. Click **OK**.
12. Assign users to the queue by clicking **Add** in the Assigned Processors table.
13. Select the users you are adding to work queue. Click the add arrow to move the users to the content selection area of the page. Only users with roles queue_processor and

queue_advance_processor appear in the list of available users. The chapter on user management provides more details on setting up users and groups.

14. Click **OK.**

    The system prompts you to select the skills that it uses in matching work assignments to the individual users.

15. Select the appropriate skills for each user, clicking **Next** after you have set up each user's matching skills

16. When you have selected the skills for each user, click **Finish**.

The system will not allow you to save the page until all assigned users have their skills selected.

By default, the new work queue is placed in the current category.

To move a work queue to another category:

1. Select the work queue.
2. Select **Edit > Add to Clipboard**.
3. Navigate to the category you want the work queue to move to.
4. Select **Edit > Move**

To delete a work queue:

1. Navigate to **Administration > Work Queue Management > Work Queues**.
2. Navigate through the categories to select the work queue to delete.
3. Select the work queue.
4. Select **File > Delete**.

   The system warns you that this operation cannot be undone.

   If the work queue is in use and is referenced by other work items, the system will not delete the work queue.

5. Click **OK** to delete the work queue.

Deleting a work queue does not delete the category it was related to.

Define work queue override policies

A work queue override policy allows the priority and aging of a task to be controlled based on the document properties and lifecycle. Override policies can be used when different document types with different processing needs are routed through the workflow. For example, applications for different types of loan products might have different priorities and different aging requirements.

To use override policies, when you apply a lifecycle to the document, you define the alias set %wq_doc_profile to the override policy that you want the system to apply to the document. If there is no override policy associated with the document, the system uses the policy associated with the work queue to set the properties of the work item.

Users with the queue_admin role can create or modify queue override policies.

To create or modify a work queue override policy:

1. Navigate to **Administration > Work Queue Management > Policies > Override Policies**.
2. Do one of these:
   - To create a new override policy, select **File > New > Work Queue Override Policy**.
   - To edit an existing override policy, select the override policy and then select **View > Properties > Info**.
3. If creating a new policy, type a name for the override policy.

   Once the override policy has been saved, the name field becomes read-only.
4. Click **Add** to view the Work Queue Policy Assignment page, where you can select a work queue and policy.
5. Select the queue and policy names to use as your override policies.
6. Click OK.
7. To remove a work queue override policy, select it and click **Remove**.
8. Click **OK**.

Manage work queue users

Work queue users can be managed from within the work queue itself or from Work Queue Monitor. When you view the list of work queues within a category, clicking on the number of active users shows you the list of users and groups that are members of the queue. You can also view the availability of the member and if there is a delegated user for that member.

This section includes these:

- Add a user or group to a work queue, page 242
- Remove a user or group from a work queue, page 242
- Add skills to work assignment processor profiles , page 243

• Update the processor profile in a work queue, page 244

Add a user or group to a work queue

If a work queue is acquiring too many tasks and the processing rate is too slow to meet your business needs, you can add more users to a queue.

Users with the queue_admin or queue_manager role can assign users and groups to queues.

To add a user or group to a work queue:

1. Click the **Work Queue Monitor** node or select **Work Queue Management > Work Queues**.
2. Navigate to the active work queue.
3. Click the queue's ***number*** **users** link in the Active Users column.
4. Select **File > Add Member**.
5. Select the user or group and click the arrow. Users must be assigned to the role queue_processor or queue_advance_processor to appear in this list.
6. Click **OK**
7. Select skills for the processor that are used in work assignment matching.
8. Click **OK**.

Remove a user or group from a work queue

Users with the queue_admin or queue_manager can remove a user or group from a work queue.

To delete a user or group from a work queue:

1. Click **Work Queue Monitor** or select to **Work Queue Management > Work Queues**.
2. Navigate to the active work queue.
3. Click the queue's ***number*** **users** link in the Active Users column.
4. Select the user or group to delete from the work queue.
5. Select **File > Remove Member**.
6. Click **Continue**.

7. Click **OK**.

If you delete a user from the queue after they have acquired a task, it remains in the user's Inbox until they have completed the task.

Add skills to work assignment processor profiles

A processor profile can include many different skills based upon the abilities, properties, or expertise of the processor. The system uses these skill profiles to match a processor to a task based on the skills or properties required to work on the task.

The queue manager and the queue administrator assign, edit, or remove skill profiles related to work queue users and can add or remove work queues for a processor using the processor profile.

Skills can also be added to a processor profile when a work assignment matching filter is added to an existing queue. After adding the filter and related skills to the work queue, the system displays each processor profile, enabling you to make the updates to the skill set. Skill profiles are not defined for groups.

If a work queue does not have any associated skill requirements, the system will not prompt you to assign skills to a processor.

To add skills to a processor profile:

1. You can add skills to a processor profile using any of these methods:
   - Navigate to **Administration > Work Queue Management > Work Assignment Matching > Processor Profile**.
   - Or navigate to **Administration > Work Queue Management > Work Queues**, select a work queue, and click the queue's ***number*** **users** link in the Active Users column.
   - Or from Work Queue Monitor, select a work queue and click the queue's ***number*** **users** link in the Active Users column. Select the user's profile by selecting Properties from the right-click menu or by selecting **View > Properties > Info**

   The Processor Profile search screen appears enabling you to see a list of all users or to search for a specific user by name or by group.

2. Access the processor to whom you are adding skills in one of two ways:

   Select **Search** in the list box and type the username, group, or user operating system name to find the processor.

   Or select **Show All Users** from the list box and navigate to the processor name.

3. Select the user and select either**View > Properties > Info** or select **Properties** from the right-click menu.

   The Processor Profile page appears.

4. Under Skills for Work Assignment Matching, click **Add**.
5. Select a filter from the list box.

   DCM displays the skills related to that filter.
6. Select the appropriate values for the processor.
7. Click **OK**.

To change skills for a processor:

1. Navigate to **Administration > Work Queue Management > Work Assignment Matching > Processor Profile**.

   The Processor Profile search screen appears enabling you to see a list of all users or to search for a specific user by name or by group.
2. Select the user and select **View > Properties > Info**.
3. In the Skills for Work Assignment Matching table, select the filter that is related to the skills you want to change.
4. Click **Edit**.

   You can add or change skills for the processor.
5. Click **OK**.

To delete skills for a processor:

1. Navigate to **Administration > Work Queue Management > Work Assignment Matching > Processor Profile**.

   The Processor Profile search screen appears enabling you to see a list of all users or to search for a specific user by name or by group.
2. Select the user and select **View > Properties > Info**.
3. In the Skills for Work Assignment Matching table, select the filter that is related to the skills you want to delete.
4. Click **Delete**.
5. Click **OK**.

If a work queue that a processor is assigned to requires a particular skill set, the system will not delete the associated filter.

Update the processor profile in a work queue

The system uses the user profile to assign tasks to a processor based on skill levels necessary for the task. You can update, add, or remove a skill for a user. You can also change work queue assignments for the user by adding or removing a work queue from the list of assigned queues.

Users with the queue_admin or queue_manager can update a user profile.

To update a processor profile:

1. Click **Work Queue Monitor** or navigate to **Work Queue Management > Work Queues**.
2. Navigate to the active work queue.
3. Click the queue's ***number*** **users** link in the Active Users column.
4. Select a user or group.
5. Select **View > Properties > Info** or select **Properties** from the right-click menu.

   The Processor Profiles page shows a list of skills that the user has as well as a list of work queues that the processor is assigned to.
6. To change the processor's skill set, click **Add** in the Skills for Work Assignment Matching table.

   The Processor Skill page appears with the username and a list box of filters associated with the assigned work queues.
7. Select a work assignment matching filter from the list box.
8. Select the skills to associate with the processor.
9. Click **OK**.

Monitor work queues

Although most functions of work queues can be managed from within their individual components, you can use Work Queue Monitor as a dashboard to manage work queues from one location. Use Work Queue Monitor to view the assignment status of each task, the actual task count and the policy task count, the priority of a task and the highest priority of the policy, as well as how many active users are assigned to each queue. If a task count or a task priority exceeds the level specified in the policy, the system displays a caution icon in the row for that queue and displays the item in the column that exceeds the policy in bold font.

Using the controls at the top of the page, you can select different views in the monitor, depending on your access and privileges. You can also select which columns appear on the page and in what order they appear by clicking the column setting icon and making your selections.

You can view all work queues in the system that you have access to by selecting **All Work Queues** from the drop down list on the page. You can also filter to show only the work queues that you manage by selecting **My Work Queues**. The **Show Descendents** option enables you to see all work queues that are nested inside of the categories.

Use the My Categories link to configure which categories appear in drop-down box of the monitor screen. Only categories that you manage are available for selection.

To select a work queue category to monitor:

1. Navigate to **Work Queue Monitor**.
2. Click **My Categories**.
3. Select the categories to monitor. Click the add arrow to move the categories to the content selection area of the page.
4. Click **OK.**

To view the work queue task a single user or a group is working on:

Work queue managers and administrators can view the inboxes of users or groups associated with their work queues.

Users with the queue_admin or queue_manager role can perform this procedure.

1. Open **Work Queue Monitor**.

   You can also navigate to **Administration > Work Queue Management** and select a work queue.
2. Click the queue's ***number*** **users** link in the Active Users column.
3. Select the user or group.
4. Select **Tools > Work Queue Management > Workload**.

   The system displays that user's Inbox and the tasks it contains.

To monitor and update active work queues:

1. Do one of these:
   - In the tree pane, click the **Work Queue Monitor** node.
   - Select **Tools > Work Queue Management > Work Queue Monitor**.
2. To view the tasks in the active queue, click either the queue name.

   To view the users in the active queue, click the ***number*** **users** link (where *number* is the number of users).
3. To update queues, see the appropriate procedure:
   - Assign or reassign a work queue task to a specific user, page 247
   - Unassign a work queue task from a user, page 247

- Move a work queue task to another work queue, page 248
- Suspend a work queue task, page 249
- Unsuspend a work queue task, page 249
- Add a user or group to a work queue, page 242
- Remove a user or group from a work queue, page 242
- Add skills to work assignment processor profiles , page 243
- Update the processor profile in a work queue, page 244

Assign or reassign a work queue task to a specific user

When a work queue task is assigned or reassigned, the system matches the new performer skill to the task skill. If the new performer does not have the skills required by the task, the system will not allow the reassignment to take place.

Users with the queue_admin or queue_manager role can assign a task in a work queue to a specific user.

To assign a work queue task to a specific user:

1. Click **Work Queue Monitor**.
2. Navigate to the active work queue, and click its name.
3. Select one or more tasks.
4. Select one of these:
   - If the selected tasks are not already assigned to a user, select **Tools > Work Queue Management > Assign**
   - If the selected tasks are already assigned to a user, select **Tools > Work Queue Management > Reassign**

   Tip: This action is also available through the **Task Manager**.
5. Select the user to whom to assign the tasks.
6. Click **OK**.

Unassign a work queue task from a user

You can reassign a task that is already assigned to one processor and reassign it to another processor by unassigning the task from the user. Unassigning the task moves the task back to the queue where you can assign the task to another work queue processor.

Users with the queue_admin or queue_manager role can unassign a work queue task from a user.

To unassign a work queue task from a user:

1. Click **Work Queue Monitor**.
2. Navigate to the active work queue, and click its name.
3. Select one or more tasks that have already been assigned to users.
4. Select **Tools > Work Queue Management > Unassign**.

Move a work queue task to another work queue

To balance the workload between work queues, you may want to move tasks from one queue to another. When you move a task to another queue, the system compares the skills in the target work queue to the skills required by the task. Tasks can move to another queue only if the target work queue contains all of the required skills for that task. For example, if the task requires the skill attributes of western region and jumbo loan, it can be moved to a queue with western region, southern region and jumbo loan. It cannot be moved to a queue with only jumbo loan.

Users with the queue_admin or queue_manager role can move a task from one work queue to another work queue.

If the task is already assigned to a user, you must first unassign the task, as described in Unassign a work queue task from a user, page 247.

To move a task from one queue to another queue:

1. Click **Work Queue Monitor**.
2. Navigate to the active work queue, and click its name.
3. Select one or more tasks.
4. Select **Tools > Work Queue Management > Move to Queue**.
5. Select the work queue to which to reassign the tasks.
6. Click **OK**.

Suspend a work queue task

Users with the queue_admin or queue_manager role can suspend a task and specify how it should remain suspended. the application will automatically resume the task when the amount of time you specified is reached.

To suspend a task in a work queue:

1. Click **Work Queue Monitor**.
2. Navigate to the active work queue, and click its name.
3. Select one or more tasks.
4. Select **Tools > Work Queue Management > Suspend**.

   Tip: This action is also available through the **Task Manager**.
5. Type the time and date when you want the application to automatically resume the task.

Unsuspend a work queue task

Users with the queue_admin or queue_manager role can unsuspend a suspended work queue task.

To unsuspend a task:

1. Click **Work Queue Monitor**.
2. Navigate to the active work queue and click its name.
3. Select one or more suspended tasks.
4. Select **Tools > Work Queue Management > Unsuspend**.

   Tip: This action is also available through the **Task Manager**.

Enable users to select tasks from the queue

Users who are assigned the queue_advance_processor role have the ability to view the work queue tasks that they are eligible to work on and acquire them regardless of their priority. Users with the queue_advance_processor role have the additional **Work Queue** node in the directory tree that shows all of their assigned work queues displayed as separate Inboxes. From these Work Queue Inboxes, they can select any unassigned tasks that they are eligible to work on based on their skill set.

If a processor pulls only one task from the queue, the task automatically opens in Task Manager enabling them to begin working on the task immediately. To keep the system from automatically opening the task after the processor pulls it, you must change the tag <openTaskManager>true</openTaskManager> in the pullqueuedtask_component.xml file to **false**. The processor can still get the task, but must open it from the Work Queue Inbox.

Create business calendars

Users from various regions or business units of your organization may adhere to different work hours and schedules. To enable workflow timers to use actual working hours and holidays, you can create custom business calendars that reflect these different work schedules. All the timers using business days and business hours will use the business calendar associated with the process template.

Users with the required permission sets can create calendars based on regional work schedules, country-specific holidays, or other unique time constraints. A process designer can then use the Process Builder application to select a specific calendar for an entire process or for a specific activity. In this way, timers for a process are calculated based on actual work hours.

When you create a new calendar, you can select an existing calendar and use it as a basis for creating another calendar, making the necessary modifications to the new calendar.

You can also create different time periods within a calendar for ease of administration. For example, you can create a calendar for the Western Region for the years 2008 through 2009. The calendar can have two different periods of time on the Periods tab—a time period within 2008 and a time period in 2009. Each period of time can be edited separately and can have its own starting and ending times, work days, and non-working days.

Note: If you edit a calendar that is being used in a running or paused workflow, the timer expiration dates are recalculated based on the modified calendar.

To create a new calendar:

1. Select **Tools > Workflow > Calendar**.

   The Calendars page appears with a list of calendars that exist within the repository.

2. Select **File > New > Business Calendar**.

3. To base the new calendar on an existing calendar, select the calendar name from the **Base calendar** list.

   The default is **None**.

If the calendar is being used in a process, the system displays the process name in the Process list.

4. Type a name and a description for the calendar.
5. Click **Next** to display the Periods page where you create separate periods of time.
6. Type a name for the group.
7. Select a **Start date** and **End date** for this event.
8. Select a **Start time** and an **End time** for the days that fall within the category of working days.

   Select **Use same time for all checked days** to set a time for one of the working days and use it for the selected days.
9. To identify a day as a **Non-working day**, select it from the pop-up calendar control and click **Add**.

   The date appears in the list of non-working days. To **Edit** or **Delete** the date, select it from the list and click the link to edit or delete.
10. Click **Next** to display the Details tab and the list of events that are associated with the calendar.

    On the Details tab, you can add, edit, and delete events.
11. Click **Next** to display the Permissions tab.

    Superuser or users with the bpmuser role can create or delete a business calendar. Any user can edit the calendar.
12. Click **Finish**.

    The system saves the calendar to the /System/Workflow/Calendar folder.

To delete a calendar:

1. Select **Tools > Workflow > Calendar**.

   The Calendars page appears with a list of calendars that exist within the repository.
2. Right-click the calendar and select **Delete**.

   Note: The system will not delete a calendar that is referenced in any process definition.

To edit a calendar:

1. Select **Tools > Workflow > Calendar**.

   The Calendars page appears with a list of calendars that exist within the repository.
2. Right-click the calendar and select **Properties**.

3. The calendar definition opens, enabling you to edit the calendar details.

Chapter 21

Lifecycles

This chapter includes:

- View Lifecycles, page 253
- Assign a lifecycle to a file, page 254
- Remove a lifecycle from a file, page 254
- Promote a file to the next lifecycle state, page 255
- Demote a file to its previous lifecycle state, page 255
- Suspend a file from its current lifecycle state, page 255
- Resume a suspended file, page 255

View Lifecycles

Each file in the repository has a lifecycle. A lifecycle defines a sequence of states a file experiences as it passes from creation to review to approval. For example, an employee might create a new human resources form, another employee might review it, and a third employee might give the approval necessary to make the file available to all employees. The lifecycle defines the file's state at each point in the process.

To view a file's lifecycle and current lifecycle state, open the file's properties. If the file has no assigned lifecycle, then you can assign the lifecycle through the properties.

You also can assign a lifecycle to a file when creating, importing, or checking in the file, or by selecting the file in a file list and using the **Apply Lifecycle** menu option. When applying a lifecycle, you can specify the initial lifecycle state for the file.

You can advance a file through its lifecycle manually by selecting the file and using the **Promote** menu option, or DCM can advance a file through its lifecycle automatically based on conditions specified in the lifecycle definition. You can also demote a file to a previous lifecycle state.

See Table 21, page 254 for descriptions of common lifecycle states.

Table 21. Common lifecycle states

State	Description
WIP (Work In Progress)	The file is in draft or review.
Staging	The file is complete and ready for testing. By default, you cannot edit a file that is in this state.

Assign a lifecycle to a file

To assign a lifecycle to a file:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.

2. Select **Tools > Lifecycle > Apply**.

3. In the selection dialog box, do these:

   a. Locate and select the lifecycle and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

   b. If the lifecycle's line item includes an option to select the lifecycle state, then select the lifecycle state in which to place the file.

   c. If the lifecycle's line item includes an option to select an alias set, then select an alias set to use with the lifecycle. The alias set determines which users have access to a file as it moves through its lifecycle.

   d. Click **OK**.

   If you perform this procedure on a template, the lifecycle is assigned to all future files created from the template. The lifecycle is not assigned to files that have already been created from the template.

Remove a lifecycle from a file

To remove a lifecycle from a file:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.

2. Select **Tools > Lifecycle > Remove**.

Promote a file to the next lifecycle state

To promote a file to the next lifecycle state:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.
2. Select **Tools > Lifecycle > Promote**.
3. If prompted, select whether to promote related files.

Demote a file to its previous lifecycle state

To demote a file to its previous lifecycle state:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.
2. Select **Tools > Lifecycle > Demote**.
3. Click **Demote**.

Suspend a file from its current lifecycle state

Suspending a file halts the lifecycle's progress temporarily.

To suspend a file from its current lifecycle state:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.
2. Select **Tools > Lifecycle > Suspend**.
3. Click **Suspend**.

Resume a suspended file

To resume a suspended file:

1. Navigate to the file and select it.

   Tip: You can perform this procedure on multiple files by selecting multiple files.
2. Select **Tools > Lifecycle > Resume**.

3. If prompted to select which state to resume to, select the state.
4. Click **Resume**.

Chapter 22

Collaborate with Other Users

This chapter includes the following topics:

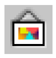
- Create and edit formatted text, page 257
- Discussions, page 259
- Notes, page 261
- Contextual folders and cabinets, page 263
- Calendars, page 264
- Data tables, page 270
- Rooms, page 276
- Manage room membership, page 284
- Manage users as a non-administrator, page 287

Create and edit formatted text

When you write notes, comments, replies and other text, you often use the Rich Text Editor (RTE). You can type text directly into the RTE or add content by pasting or dragging-and-dropping from another application.

The following table describes the tools available in the RTE.

Table 22. Formatted text editing tools

Tool	Description
	Gives access to comment editing options, such as undo, redo, delete, and select all. With Microsoft Internet Explorer, additional choices are also available: cut, copy, paste, and remove styles.
	Adds graphics. The **Insert Image** dialog box opens and provides controls for choosing and uploading one *.bmp*, *.gif*, *.jpeg*, or *.png* image at a time, which is then shown inline in the editing area.
	Creates hyperlinks. The **Insert Link** dialog box opens. Set the title and URL of the hyperlink, and choose whether to have the link open in a new window.
	Checks spelling. (You will be prompted to download a plug-in.) When the spell-checker finds a possible misspelling, the word is selected, scrolled into view, and the **Check Spelling** dialog box opens. The word in question appears in the **Change** box with a suggested alternative in the **To** box. You can edit the text in the **To** box, or select a word from the list. Spelling commands are as follows: • **Change**. Changes the selected word to the one in the **To** box. • **Change All**. Changes all occurrences of the selected word in the text. • **Ignore**. Leaves the selected word unchanged. • **Ignore All**. Ignores all occurrences of the selected word in the text. • **Add to Dictionary**. Adds the selected word to the dictionary used to check spelling.

Note: In general, the RTE can display any HTML content that the web browser can display. However, if you paste into the RTE content that was created outside of the RTE, you might be unable to edit some elements of that content. For example, if you paste an HTML table into the RTE, it displays appropriately and you can edit text in the table's cells, but you cannot edit the table itself.

Discussions

Discussions are online comment threads that facilitate collaboration around particular items. A web site production team, for example, can use discussions to sharing feedback about content before publishing it. Development teams can use discussions to brainstorm, debate, and reach consensus about product design and specifications.

Most items (such as documents or rich media files) have an attached discussion page. Folder and note pages have embedded discussions shown below the list of child items in a folder or the body of a note. You can add, edit, delete and reply to comments in a discussion, but you cannot select or edit a discussion apart from its parent item.

Each new version of an item shares the same discussion as the immediately preceding version. A WDK setting can change this default behavior so that discussions are only shared for each new minor or branch version (while major versions have new discussions), or that no versions of an object share a discussion (every version has its own). In this manner, an object's versions can provide a sort of timeline for an object, along with the comments in each discussion. When a discussion is shared by versions, version markers for each checkin appear among the comments.

The following topics describe how to use discussions:

- View discussions, page 259
- Add and edit comments, page 260
- Delete comments, page 261
- Discussions in search results, page 261

View discussions

In the optional Discussion status column of a list (indicated by the icon), objects that have discussion comments are distinguished by one of these discussion icons:

- means you have read all comments in the discussion.
- means there are some comments in the discussion you have not read.

To see a discussion, with or without comments (for example, to add a comment), either click on a discussion icon, or select a single object and pick **View > Discussion**.

To sort a list of objects according to their discussion comments (read, unread, or none), click at the top of the Discussion status column. You can turn off the Discussion status column by using Display Setting preferences for columns.

You can mark discussions as having all read or unread comments. For example, if you want a visual reminder when only new comments are added to a particular discussion, select or open the object it is associated with and pick **File > Mark Discussion Read**. Conversely, you can make all comments appear to be unread with **File > Mark Discussion Unread**. Selecting multiple objects applies these commands to each object in the selection.

Add and edit comments

Users with at least Write permission to an object can go to the **Properties: Info** tab for the object, and select or clear the **Show discussion** checkbox. Once a discussion is shown, users with at least RELATE permission on the discussion's primary parent can add a comment or a reply in that discussion.

To add a comment to a discussion:

1. Display the discussion by doing one of these actions:
   - Click the discussion icon (or).
   - Select a single object and pick **View > Discussion**.
2. In the discussion, below the last comment, click **add a comment**. (If there is no **add a comment** button for an object, your permission for the parent object is less than RELATE.)
3. Enter the (required) title and (optional) body of your comment.
4. Click **OK**.

   Your comment appears below the last comment, set even with the left margin of the one above it.

To reply to a particular comment:

1. Next to the title of the comment to which to respond, click .
2. In the rich-text editing window, fill in the title and body of your comment.

   Your remarks appear below the comment to which you are responding.

If there is no icon for replying to a comment, your permission for the parent object might be insufficient. For adding or replying to comments you need at least RELATE permission.

To edit a comment:

1. Next to the title of a comment you added, click .
2. In the rich-text editing window, edit the title and/or body of your comment.
3. Click **OK** to put your changes into effect.

Unless you have administrative privileges, you can edit your comments only.

Delete comments

You can delete a comment as long as you have DELETE permission on it and RELATE permission on the discussion. These are your permissions when you author a comment.

When you delete a comment, any replies to it (and replies to them) are also deleted, regardless of your permissions over them. If you have DELETE permission on an object, you may delete all comments in its discussion, even if you lack permission to edit those same comments.

While you cannot explicitly delete a discussion, deleting all of its parents effectively deletes the discussion as well.

Discussions in search results

The repository search index contains the rich-text content of discussions, but not their meta-content or properties. This means that discussion comments can match a search by full text, but not a search by properties like object type or creation date. You can, however, search for the names of comment authors.

When a discussion matches the search terms, the results show the parent object, not the discussion itself. You can open the discussion of any search result using the same methods as in other contexts.

Notes

A note is a simple page for composing, editing, and sharing information without using or requiring other users to have another application to do so. Notes can have built-in discussions and can contain rich-text content.

Notes () appear in DCM only where documents are shown. They can have embedded discussions if the **Show Discussion** option is checked in the note's properties.

While you can subscribe to notes, they do not have versions or renditions. You can edit, move, copy, or link a note, but you cannot check notes in or out, or export them.

To search for notes, run an advanced search and set the type of object field to either Sysobject (dm_sysobject) or Note (dmc_notepage).

To create a note:

1. Navigate to the location for the new note.
2. Select File > New > Note.

   The **New Note** dialog box opens.
3. In the **Create** tab, specify the following properties:
   - **Name** (required). The name of the new note must be unique among the names of other objects in the same container.
   - **Note**. Using the RTE, specify the body of your note (this is optional). You can edit this field after the note is created.
   - To subscribe to the note, check the **Subscribe to this notepage** option (click **[+] Show options** if necessary to view the option).

   You can either continue to another tab, or click **Finish** to create the note.
4. Click **Finish** to close the dialog box and create the note.

   Or, you can click **Cancel** to close the dialog box without creating a note.

To edit the body of a note:

1. Select **File > Edit**.
2. Edit the body of the note.
3. Click **OK** to put your changes into effect.

To edit the name of a note:

1. Do one of the following:
   - Right-click the note and select **Properties** from the context menu.
   - Select the note and select **View > Properties > Info**.

   The **Properties: Info** tab opens.
2. Edit the note's **Name** and any other properties, as appropriate.
3. Click **OK** to put your changes into effect.

To delete a note, select it and then pick **File > Delete**.

Since notes do not have versions, the **Delete** dialog box for a note differs from that for typical documents. Choices in the **Delete** dialog box are as follows:

- **Links**. Delete just the link to the location name (not selected and disabled if the note has only one location, otherwise selected by default).
- **Note**. Permanently delete the note (selected by default if note has only one location).

Contextual folders and cabinets

Contextual folders and cabinets are repository containers with optional rich-text descriptions and built-in discussions. These features provide the ability to capture and express the work-oriented context of a folder's hierarchy. Such contextual information might include details about project goals, tasks, roles, milestones and so forth. Since full-text search keeps an index of all descriptions and discussions in a repository, they are easy to find, along with the items to which they relate.

Rich-text descriptions display at the top of a contextual folder, like a room's welcome message. They can provide, for example, document summaries, instructions for using project materials, or pointers to other locations. Because they can include formatted text, pictures, and hyperlinks, folder descriptions can be informative, personalized, and appealing in order to draw users' attention.

Discussions embedded on a contextual folder page encourage team members to focus communication towards the nexus of their work (such as for document reviews) instead of using email, for example, for project correspondence. Organized in a tree of comments, these discussions help to capture and preserve the work-related flow of information.

In some form or another, all project teams converse about a variety of topics, such as case issues, scheduling decisions, development plans, product ideas, and customer feedback. Discussions in contextual folders let teams save and have ready access to such ad hoc but historically valuable exchanges.

To create a new contextual folder:

1. Navigate to the location for the new folder.
2. Select **File > New > Folder**.

   The **New Folder** dialog box opens.

3. In the **Create** tab, specify the following properties:
   - **Name** (required). The name of the new folder.
   - **Type**. The type of folder.
   - **Description**. In the rich-text editing window, create a description that will appear below the navigation path on the folder's page (optional).
   - To subscribe to the folder, select the **Subscribe to this folder** checkbox (click **[+] Show options** if necessary to view the option).

   You can either continue to another tab, or click **Finish** to create the folder.
4. Click **Finish** to close the dialog box and create the folder.

   Or, you can click **Cancel** to close the dialog box without creating a folder.

To enable a discussion for the folder, you must select the **Show Discussion** checkbox on the **Info** tab of the folder's properties dialog box.

Calendars

Calendars let you organize, track, and schedule events. Since calendars support the iCalendar (or iCal) standard format for exchanging calendar data over the Internet, they are well-suited for use in distributed collaborative groups.

While you can subscribe to calendars, they do not have versions or renditions. You can edit, move, copy, or link calendars, but you cannot check calendars in or out.

A calendar can be added to the clipboard and then linked, moved or copied like a folder. A copy of a calendar includes copies of all the original's descendants. Calendars can only hold events, and only events can be copied in calendars. Events, on the other hand, can be copied in any folder location.

The following topics describe how to use calendars:

- Create calendars and events, page 265
- Specify recurring event properties, page 267
- View calendars and events, page 268
- Edit calendars and events, page 269
- Delete calendars and events, page 269
- Calendars in search results, page 269
- Export and import with calendars, page 269

Create calendars and events

To create a calendar:

1. Navigate to the location for the calendar.
2. Select **File > New > Calendar**.

   The **New Calendar** dialog box opens.
3. In the **Create** tab, specify the following properties:
   - **Name** (required). Enter the calendar's name, which must be unique among the names of other objects in the same container.
   - **Description**. Create a description that will appear below the navigation path on the calendar's page (optional).
   - To subscribe to the calendar, select the **Subscribe to this calendar** checkbox (click **[+] Show options** if necessary to view the option).

   Either continue to another tab, or click **Finish** to create the calendar.
4. Click **Finish** to close the dialog box and create the calendar.

   Or, you can click **Cancel** to close the dialog box without creating a calendar.

To enable a discussion for the calendar, you must select the **Show Discussion** checkbox on the **Info** tab of the calendar's properties dialog box.

To create a calendar event:

1. Navigate to (or create) the calendar in which to create an event.
2. Select **File > New > Event**.

   The **New Calendar Event** dialog box opens.
3. In the **Create** tab, enter information as appropriate. For field descriptions, see Table 23, page 265.

Table 23. Calendar events

Field	Description
Name (required)	Type the name of the new event. If you select the **Send mail when I finish** checkbox, the event name appears in the **Subject:** field of the header in the email about the event.
Start Date (required)	Pick a date when the event starts.
Start Time (required unless **All Day Event** is selected	Enter a time when the event starts.

Field	Description
All Day Event	Select this checkbox if the event is a day-long occurrence.
End Date (required)	Pick a date when the event ends.
End Time (required unless **All Day Event** is selected)	Enter a time when the event ends.
Organizer (required)	Pick the name of the user organizing the event if different from the (default) user creating the event. If you select the **Send mail when I finish** checkbox, the organizer's name appears in the **CC:** field of the header in the email about the event.
Attendee List	Pick the names of users attending the event. If you select the **Send mail when I finish** checkbox, these names appear as recipients in the **To:** field of the header in the email about the event.
Location	Specify the location for the event.
Notes	Enter information about the event (optional). If you select the **Send mail when I finish** checkbox, these notes will appear following the default text in the body of the email message to recipients. The default text in that email is as follows: `You are invited to the following meeting: Topic:` *`meeting name`* `Date:` *`recurrence pattern or start date, time, duration`* `Location:` *`location`* `To view the event, point your browser to:` *`event drl`* `Or open this event in your desktop calendar:` *`ICS inline attachment`*
Send mail when I finish	Select this checkbox if you want to send email notices about the event.

4. For a recurring event, open the **Recurrence** tab and follow the guidelines in the section titled *Specifying recurring event properties* later in this chapter.
5. Click **Finish** to close the dialog box and create the event.

   If the **Send email when I finish** checkbox is selected when you click **Finish**, notification email about the event is sent to the users specified on the **Attendee List**.

   Or, you click **Cancel** to close the dialog box. In this case, no event is created, and no email is sent.

Specify recurring event properties

Recurring events repeat according to a specified *frequency pattern* for a specified *duration*. You set these properties in the **Recurrence** tab of the Calendar Event properties dialog box.

Choose from the following options to specify a recurring event's frequency pattern:

- **None** (default). The event does not repeat and event duration options are disabled.
- **Daily**. The event repeats either every day, or (if selected) **Every Other Day**.
- **Weekly**. The event repeats every week according to the following options:
  - **Every Other Week** (optional). The event repeats every other week on the selected **Days**.
  - **Days** (required when **Weekly** frequency is chosen). Pick one or more days of the week on which the event occurs. The default setting is the day of the week on which the start date falls.
- **Monthly**. The event repeats every month according to one of the following options:
  - **Same Date**. The event repeats once per month on the same date. If the date is the 29th of the month or later, this option includes the text or last day of month. For example:

    Day 17.

    Day 30, or the last day of the month.
  - **Same Weekday, On Alternating Weeks** (available only if start date falls on the 28th of the month, or earlier). The event repeats in a pattern similar to these examples:

    The first and third Wednesdays.

    The second and fourth Fridays.
  - **Same Weekday, Last Of Month** (available only if the day on which the event starts is one of the last seven days of the month). For example:

    The last Tuesday of the month.

    The last Friday of the month.
- **Annually**. The event repeats once per year on the same date each year.

If the event's frequency pattern is set to **None**, duration settings are disabled. Otherwise, choose one of the following options for a recurring event's duration:

- **Occurrences**. Specify the number of times the event occurs.
- **End Date**. Pick the date of the last time the event occurs. The default setting is the date on which the last of the specified number of **Occurrences** falls. If the **End Date** is the 29th of the month, or later, and month has no such day, the date is last day of the month.
- **Forever**. Select this option if the event has no finite number of occurrences and no end date.

If the **Send mail when I finish** checkbox is selected when you specify recurring event properties, the notification email sent to event participants includes a description of the recurrence in the **Date** field. Here are some examples of such descriptions:

- Daily, for 5 occurrences
- Every other day, for 5 occurrences
- Weekly on Wednesday, Thursday, until September 20, 2007
- Monthly on Day 30 or last day of month, forever
- Annually, for 5 occurrences

View calendars and events

Calendars display events in a list that you can modify by changing list view preferences. Default columns in the calendar list view are as follows:

- **Event**. The name of the event.
- Attachment icon – The attachment icon is shown if attachments are available on the event. Attachments cannot be added to an event, however attachments might be added through other applications. Clicking on the attachment icon takes you to a folder view with the attachments listed in the view list.
- Exception Type icon. Indicates standalone exceptions or recurring events with exceptions.
- **Start**. The start date and time for the event.
- **End**. The end date and time for the event.
- **Location**. The location of the event.

Edit calendars and events

Properties of calendars and events are the same when you view or edit them as when you create them.

Just as you can edit several objects at the same time, you can edit multiple events at once. When editing multiple events, however, only the **Info** and **Permission** tabs are available.

When editing events, the following rules apply:

- For a recurring event, the entire series is always edited.
- For an exception to a recurring event, only the exception is changed.

Collaborative services cannot create exceptions to recurring events, but can display exceptions that another application or import creates. Such exceptions can be edited.

If you view or edit a calendar event, and you select the **Send email when I finish** checkbox, notification email is sent to event participants when you click **Finish**.

Delete calendars and events

When you delete a calendar, decide whether to delete the selected calendar only, or the selected calendar and all events (this is similar to deleting a folder).

To delete an event, select it and choose the **Delete** command. In this case, the following rules apply:

- For a recurring event, you must confirm that all exceptions will be deleted.
- For an exception to a recurring event, only the selected exception is deleted.

Calendars in search results

All content in a calendar (including any description and discussion comments) is indexed for full-text search. In the **Advanced Search** dialog box, Calendar and Calendar Event are included in the list of object types for which you can search.

Export and import with calendars

Collaborative services can export events as *.ics* files, in iCal format. The **Export** command is available when one calendar or event is selected, or when a calendar or event is open. You can export an individual event or an entire calendar.

When an event is imported, its properties are handled in one of these ways:

- **Use**. If a property is supported, then it is used as follows:
  - — **no change**. Keep the original value if it is supported. For example: Duration.
  - — **reformat**. Reformat a value with an equivalent. For example, a start time can be expressed in more than one time zone.
  - — **convert**. Convert an overly complex or unsupported value. For example, seconds are removed from times and durations.
- **Move**. If a property is not supported, but a similar property is, the value of the former is moved to the latter. For example, a comment is moved and combined with a description.
- **Cache**. If a property is not supported, but its presence is harmless, the property is retained in case the event is exported. For example: Free/Busy.
- **Discard**. If a property conflicts with collaborative services's object model, it is discarded. For example: Attachments.

Importing an event that was previously exported updates the original event if the exported event was changed prior to being re-imported.

Data tables

Use data tables to create and manage structured collections of similar data such as lists of issues, tasks, milestones, and contacts. Information in a data table is organized as a series of entries (or records, or rows) that have a common format, or schema. Each table has just one schema, which describes the attributes of each field, including its name and data type.

While you can subscribe to data tables, they do not have versions or renditions. You can edit, move, copy, or link data tables, but you cannot check them in or out.

You can copy, move, and paste data tables. When you copy a data table with entries, the new entries have a fresh series of autonumbers and an empty history.

Data table entries can be copied and pasted between tables and within the same table.

When a data table becomes governed or ungoverned, all its entries are governed or ungoverned as well. When you copy or move entries between tables with different governing, the governing is automatically changed on the copied or moved entries.

The following topics describe how to use data tables:

- Create data tables and entries, page 271
- View data tables, page 274
- View data table entries, page 274
- Edit data tables, page 275
- Edit data table entries, page 275
- Delete data tables, page 276
- Import and export with data tables, page 276

Create data tables and entries

To create a data table:

1. Navigate to the location for the new data table. Either paste a data table from the clipboard, import a data table, or perform the following steps to create one from scratch.
2. Select **File > New > Data Table**.

   The **New Data Table** wizard opens.
3. In the **Create** tab, enter the following properties:
   - **Name** (required). The name of the new data table.
   - **Description** (optional). A description that appears below the navigation path on the data table's page. You can edit this field after the data table is created.

   To subscribe to the data table, check the **Subscribe to this data table** option (click **[+] Show options** if necessary to view the option).
4. Click **Next** to create the data table's fields (or columns). A data table entry consists of the fields that make up a row. Each field has a name and a data type, and one of the fields is the designated entry name. Three, unnamed, plain-text fields are initially provided for a new table. You can edit, add, or delete fields as appropriate.

For each field, choose settings as follows:

- **Field Name** (required). The name label for the field. For example, *Name*, *Date*, *Part Number*, and so on. The name must be between 1 and 128 characters in length, and it must be unique within the current table. One of the field names is designated as the entry name.
- **Field Type**. The type of data the field contains. Choose a field type, as described in Table 24, page 272. You cannot change (edit) the data type of a field once the table is created.
- **Use as entry name**. The field identified as the name of the entry. Clicking the entry name in a data table row opens the entry. The following field types can be entry names: plain text, number, autonumber, date, or member. You cannot change (edit) or remove the entry name field once the table is created.

To add a field, click **Add**; to delete a field, click **Remove**.

Either continue to another tab, or click **Finish** to create the data table.

5. Click **Finish** to close the wizard and create the data table.

   Or, you can click **Cancel** to close the wizard without creating a data table.

To enable a discussion for the data table, you must select the **Show Discussion** checkbox on the **Info** tab of the create data table wizard, or the data table's properties dialog box.

Table 24. Data table field types

Field type	Description
Plain text	For fields displaying text with no special formatting.
Formatted text	For fields displaying text with type styles such as bold and italic, as well as graphics and hyperlinks.
Date	For fields displaying calendar dates. When creating a table and defining a date field, you can (optionally) select a checkbox that specifies the field as a due date.
Number	For fields displaying fixed digits and related characters, such as currency symbols, commas, and decimal points.
Autonumber	Numeric values created automatically, according to the sequence in which the entry is created. A data table can have only one autonumber field.
Yes/No	For fields displaying blank, yes, or no values.
Traffic light	For fields displaying blank, red, yellow, or green values, indicating the overall status of entries.

Field type	Description
Choice list	For fields that display a subset of predefined values. Specify the choice values in the text box (for example: `choice 1`, `choice 2`, and `choice 3`, without the commas, and each on its own line). A choice list must have at least one choice, each choice must be unique in the list, and no line can be blank. The order of lines determines the order in which the choices appear in the list of choices when users create or edit an entry. To allow users to choose more than one value for this field, select the checkbox labeled **Allow multiple choices**.
Member list	For fields that display the names of members. Members can either be users or groups. Decide whether multiple users can be selected for this field or only from a list of specified users.
Discussion	For including a discussion field in the entry. A data table can have only one discussion field.
Attachments	For including an attachments field in the entry. A data table can have only one attachments field.

To create a data table entry:

1. Navigate to (or create) the data table in which you want to create an entry.
2. In the data table summary view, select **File > New > Entry**.
   The **New Table Entry** dialog box opens.
3. In the **Create** tab, enter data for each of the field types.
   You can either continue to another tab, or click **Finish** to create the entry.
4. Click **Finish** to close the dialog box and create the entry.
   Or, you can click **Cancel** to close the dialog box without creating an entry.

Table 25. Editing data table field types

Field type	Description
Plain text	Edit a plain text field using a standard text box.
Formatted text	Edit a formatted text field using the RTE.
Date	Edit a date field using a text box with a date picker provided for choosing a date. If the date is a due date, you can optionally select the **Done?** checkbox to indicate when a task is finished.
Number	Edit a number field using a text box.
Autonumber	The autonumber field is read-only.

Field type	Description
Yes/No	Select blank, **Yes**, or **No**.
Traffic light	Select **Red**, **Yellow**, **Green**, or blank.
Choice list	For a choice-list field that allows one choice only, pick the value from a drop-down list of predefined choices. For a field that allows multiple choices, select from the set of predefined values.
Member list	Use the member picker to select members (either users or groups).
Discussion	You cannot edit a discussion field.
Attachments	You cannot edit an attachments field.

View data tables

When browsing in a folder, data tables appear as data table icons.

To open a data table, either select it and pick **File > Open**, or double-click it.

The data table opens in the summary view. Entries are displayed in rows. Each row is divided into fields (or columns) of data such as name, address, and phone number, according to the table's schema.

You can sort columns and edit column preferences the same as you do in a folder. If you delete a field, the corresponding column disappears. If you add a field, however, you must edit column preferences to make it appear in summary view.

View data table entries

To view a data table entry from the data table summary view, either select it and pick **File > Open**, or double-click it.

If the entry belongs to a data table governed by a room, the room banner graphic (if any) appears on the page below the entry name.

If the data table schema includes an **Attachments** field, a list view appears embedded in the entry page like a folder list. The attachments area supports DCM drag-and-drop functionality. (To use drag-and-drop, you must first enable the drag-and-drop option in your general preferences.) Folders and folder subtypes *are not permitted* in the attachments area. Attachments, if they are not already governed by a room, are governed automatically when a data table becomes governed by a room.

If the data table schema includes a **Discussion** field, the discussion appears embedded in the entry page as it does on a folder or a note page.

Edit data tables

To edit the properties of a data table, do one of the following:

- Select it and pick **File > Edit**.
- Select it and pick **View > Properties**.
- Right-click the data table icon and select **Properties** from the pop-up menu.
- In summary view, click the **Edit** button at the top of the page.

When you edit a data table, the standard **Info**, **Permissions**, and **History** tabs are available, in addition to a **Fields** tab, which allows you to edit table fields.

When editing a data table's fields, you can add, rename, and delete fields, and modify certain field options. Once the data table is created, however, you cannot

- change the data type of a field
- change or remove the **entry name** field
- reorder fields

You can change the choices in a **Choice list** and members in a **Member list**. However, you cannot change a **Date** to a **Due date**, nor a member field that allows multiple choices back to one that permits a single choice only.

If you delete a **Discussion** field, all comments in all of the data table's entries are removed.

If you delete an **Attachments** field, all attachments are removed from every entry in the data table. *This action cannot be undone*. Attachments that are linked elsewhere in the repository are unlinked. If any attachment cannot be deleted, no attachments are deleted. Until the delete operation concludes, no one can delete the data table, add or remove entries, edit the data table's properties, nor edit the data table's entries.

Edit data table entries

To edit field values in a data table entry (row), do one of the following:

- Select the entry and pick **File > Edit**.
- Right-click the entry name and pick **Edit** from the pop-up menu.
- On an entry page, click the **Edit** button.

The edit entry page opens and fields appear in the same order, and with the same names, as they have in the table's schema. The name and value of each field appear side-by-side. You edit field values the same as when you create an entry.

To edit the properties of a data table entry, do one of the following:

- Select it and pick **View > Properties**.
- Right-click the data table entry name and select **Properties** from the pop-up menu.
- On the entry page, click the **Edit** button at the top of the page.

When you edit the properties of a data table entry, these tabs are available:

- **Info**: standard Info tab
- **Permissions**: standard Permissions tab
- **History**: standard History tab for a data table entry

Delete data tables

In order to delete one or more data tables, you must have permissions to delete the data tables, the data table entries, and any/all attachments in the data tables. If you have delete permissions for the data table(s) but not for one or more attachments in the data table(s), the table will not be deleted.

Import and export with data tables

You can add entries to a table by importing entries from a file. To do so, open the table and choose the **File > Import** command, which opens the **Import** dialog box. When importing entries, values are unmodified even if they conflict.

Entries in a table may be exported in *.csv* format via the **Export** command. Data is exported according to the same rules as when importing.

Rooms

Rooms are virtual workplaces where group interactions take place. Rooms have members, and membership is associated with both the processes and the content in a room. Items in a room are governed by that room (that is, their permission sets are determined by the room) and non-members cannot access them.

Repository users with the appropriate permissions can create and administer a room in DCM, instead of relying on a system administrator. Room creators/owners and user managers determine a room's member list.

Note: Creation and administration of rooms are available only to WDK-based applications such as DCM.

The following topics describe how to use rooms:

- Visit a room, page 277
- Link to a room, page 277
- Objects governed by rooms, page 278
- Create a room, page 279
- Edit the properties of a room, page 281
- About room membership, page 281
- Copy a room, page 283
- Move or link to a room, page 283
- Delete a room, page 283

Visit a room

Rooms are like folders in the DCM navigation tree.

To open the home page of a room of which you are a member:

1. In a list of items, click the room icon ().

   The first time you visit a room’s home page, you have the option to subscribe to it (unless you are its creator and have already done so).

2. Choose **Yes** or **No**, and then click **Continue**.

   If you choose **Yes**, the room’s home page is added to your subscriptions.

The home page of a room is like the top level of a folder, with these unique aspects:

- The title is the room’s, plus the words "home page".
- A banner graphic (if any) appears above the room’s welcome message. (A room’s banner graphic also appears on the pages of governed folders, notes, and standalone discussions in that room.)
- A link to the **Membership** tab of the room properties appears at the top.
- The welcome message (if any) is like a folder’s rich-text description.
- The built-in discussion is named Announcements.

Link to a room

You can add a link to a room’s home page anywhere in the repository that permits links.

Objects governed by rooms

When an object is *governed by* a room, its permission set is ruled by the room, and only the room's members can access it. While a governed object may be linked to other locations in a repository, only members of the room that governs the object can access it. A room governs anything created within or imported into it, except for another room.

When an object becomes governed (is either created in or copied to the room or a governed folder), the room's default permissions are applied to the object. If the room's permission set is changed, all permission sets for governed objects are changed accordingly.

In the Room column of a list (indicated by the icon), objects that belong to rooms are distinguished by one of the following icons, which are their *governing indicators*:

- means the item belongs to (or is governed by) the same room as the current folder.
- means the object belongs to a different room.

Clicking a governing indicator opens the room's home page. Click the header icon to sort a list of objects according to whether they belong to the same room, a different room, or no room.

If you show all versions in a folder, each version of an object that is visible to you has its own governing indicator since different versions may belong to different rooms.

You can turn off the Room column by using Display Setting preferences for columns.

Ungovern objects from a room

A user must have Write and Change permissions on an object in order to ungovern it. Also, a room option may limit ungoverning to owners.

When an object is ungoverned, it gets the default permission set for the repository, unless it is ungoverned from a governed folder and the default permission set is FOLDER, in which case it gets the default permission set for the user.

The governing relationship of an object to a room can be removed in these ways:

- Moving links from inside the objects' room to anywhere outside it can lead to ungoverning those objects.
- Using the **File > Remove From Room** command.
- Copying a governed object into an ungoverned folder.
- Moving a link for a governed object out of its room via a workflow, as long as the workflow is authorized to ungovern in that room.

If you copy entries between different governed data tables, the governing on the copies is automatically changed to match the governing room's permission set.

Create a room

You can create a room anywhere in a repository that allows folders.

To create a room, users must not only have permission to create objects in the intended location, but must also belong to the Create Room role in the repository.

When you create a room, you become its owner.

To create a room:

1. Navigate to the location for the new room.
2. Do one of the following:
   - Click **New Room**.
   - Select **File > New > Room**.

   The **New Room** dialog box opens.
3. In the **Create** tab, specify these properties:
   - **Name** (required). The name of the new room. The name must be unique among the names of other objects in the same cabinet.
   - **Welcome message**. Optional rich text that will appear below the navigation path on the room's home page.
   - To subscribe to the room, select the **Subscribe to this room** checkbox (click **[+] Show options** if necessary to view the option).

   You can either continue to another tab, or click **Finish** to create the room.

4. Choose the room's members either now, or after the room is created.
   - The **Choose Owners** tab provides the usual DCM controls for selecting users, groups, or roles. You can add or remove members in this role later. As the room's creator, you automatically become an Owner.
   - On the **Choose Contributors** tab, pick the repository users, groups, or roles that you want in the room's Contributors role. You can add or remove members in this role later.
5. Select the room's options either now, or after the room is created.
   - **Rights to remove governing**. Decide who can remove the governing relationship that the room has over objects belonging to the room, either room Owners only, or any room member (Contributors as well as Owners).
   - **Room Banner**. Decide whether your room displays a graphic at the top of all pages in the room. To specify a custom banner, select the **Use Custom Banner** checkbox. Pick the graphic file (*.gif*, *.jpg*, *.jpeg*, or *.png* format, no more than 36 pixels tall) that will upload to the room when you click **Finish**.

     You can remove a room's graphic by editing the room's properties, clearing the **Use Custom Banner** checkbox, and clicking **OK** to put your change into effect.
   - **Accessors for newly added objects**. Set up the permissions to add to an object when it becomes governed by the room. A chart lists which permissions will be granted each local group. Each row in the chart shows the name and current settings of one group, with an **Edit** button leading to an editing dialog. The chart initially shows the two built-in groups, **Contributors** and **Owners**, with the following default settings:
     - **Contributors**: RELATE, Run Procedure, Change Location.
     - **Owners**: DELETE, Run Procedure, Change Location.

     If additional room-level groups are created after the room is created, the chart also lists these groups, with initial permission of NONE, and no extended permissions.

     The room creator can change the setting for any group by clicking **Edit** in its row to open the **Set Access Permissions: For new objects added to the room** dialog box, which contains the usual controls for setting permissions.
6. Click **Finish** to close the dialog box and create the room.

   Or, you can click **Cancel** to close the dialog box without creating a room.

Edit the properties of a room

Room owners can edit the complete set of room properties. Room members who have WRITE permission on the room can edit a subset of properties inherited from the folder type. However, only room owners can change the name of the room.

To edit the properties of a room:

1. Navigate to the location that contains the room.
2. Do one of the following:
   - Select the room and pick **View > Properties > Info**.
   - Open the room and click the **Properties** link on the room's home page.

   The **Properties: Info** tab opens.
3. Change properties, as appropriate, and click **OK** to put them into effect for the room.

   Changes you make to the **Properties: Membership** tab take effect immediately (you do not need to click **OK** first).

About room membership

Room *members* are a set of repository users, groups, and roles that are on the room's member list.

Each room member has either a **Contributor** or **Owner** role in the room.

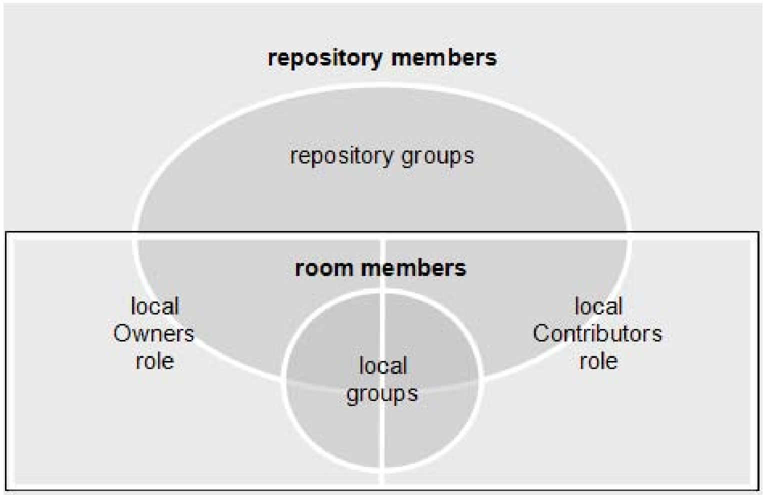
- **Contributor** role usually grants RELATE permission over room objects. Most room members are contributors.
- **Owner** role permits member list management and usually grants DELETE permission over room objects. Room creators are room owners by default.

Local roles are in effect only for room objects and locations; they have no meaning outside of a room.

If a member directly assigned to the **Contributor** role is also in the **Owner** role indirectly (for example, via a group), then the **Owner** role takes precedence for that member.

Room members can belong to private, *local groups* within a room. Such local groups support custom roles within the room (**Spec Approvers**, for example). The name of a local group must be unique within the room.

Figure 36. Repository members in relation to room members, groups, and roles



All members of a room can see the room's member list, but only room owners and user managers can manage room membership.

To open the room member list:

1. Do one of the following:
   - On the room's home page, click the **Members** link.
   - Open the **Membership** tab of room properties (**Properties: Membership**).

Columns in the room member list are as follows:

- **Name**. The name of the group or member.
- **Role**. Distinguishes owners versus contributors.
- **State**. Shows whether members have working accounts in the repository.
- **Description**. Email addresses for users, descriptions for groups.
- **Group**. Visible when the **Show Groups** checkbox is selected. If a member is not explicitly added to room, this column shows the group that grants membership to the member. (There might be multiple groups, but only the first in alphabetical order is shown.)

To see the members of a group, click the group's name. To go back up, use the navigation path above the group member list.

If you are a user manager, a button for creating a new user also appears in this dialog box.

Copy a room

You can copy a room to anywhere in a repository that a folder can be copied.

When you copy a room, the new room contains copies of everything accessible from the original. A copy of a room has the properties of the original. The local roles and groups of the copy are duplicates of those in the original room, except that the member creating the copy is in the **Owner** role (not the owner of the original room, if different).

Move or link to a room

You can move a room anywhere in a repository that a folder can be moved.

A link to a room home page may be added anywhere in the repository that permits links.

Delete a room

Superusers and room owners can delete a room, but any users who are *not* room members cannot delete a room, even if they have DELETE permission.

Choose one of the following options:

- **Delete just the link to [room name]** (default choice).
- **Delete the room, including its member list and local groups, and all links to it**. In this case, you must pick between deleting just the current version or all versions.

If you delete the last remaining link to a room, you are deleting the room and must decide whether to:

- **Delete the room, its member list, and its local groups** (default choice). This action succeeds only if the home page has no links, not even hidden links to old versions, which also implies the room no longer governs anything.
- **Delete the room, its member list, its local groups, and all sub-folders and objects**. In this case, decide whether to:
  - **Delete current versions of linked objects** (default choice)

    This option begins by deleting the current version of every linked object. The deletion stops, however, if the home page and sub-folders still contain links to other versions of any of those objects, even hidden links to old versions. To be entirely deleted, the room must not have any links (not even hidden ones) to non-current versions of objects.
  - **Delete all versions of linked objects**

If you are deleting multiple objects, the deletion dialog box has multiple pages with the above choices for any room that needs it.

Manage room membership

Room owners and user managers determine a room's membership. You can add members when you create or modify a room. User managers can also create new users in a room.

Once the room's members are specified, you can invite them to the room by sending an invitation. This personalizes the introduction to a room and provides a convenient means of getting there (by clicking the link in the invitation).

To add repository users as room members:

1. On the room's **Membership** tab, click **Add**.
2. In the first dialog box, use the member picker to locate and select the repository members, groups, and roles to add to the room's member list.
3. Click **OK** to go to the next step of assigning a role to the selected members. (Clicking **Cancel** returns to the **Membership** tab.)
4. In the second dialog box, pick the new members' role (**Contributor** or **Owner**).
5. Click **OK** to assign the role and return to the **Membership** tab. (Clicking **Cancel** returns to the member-picking dialog box.)

To invite members to a room:

1. On the room's **Membership** tab, click **Invite**.
2. In the email dialog box that opens, click **to** and/or **cc** to select the room members you want to invite.
3. In the body of the invite, enter your message. The message initially includes a link to the rooms location.
4. Click **Send** to send the message to the specified members.

   Or, click **Cancel** to close the dialog box without sending the email.

To remove members from a room:

1. On the room's **Membership** tab, click **Remove** to open the **Choose Members: Room Members** tab, which lists room members, including local groups, only.
2. In the left pane, locate and select the room members, groups, and roles to remove from the room's member list.
3. With the members selected, click .
4. Click **OK** to remove the members from the room's member list.

   The **Membership** tab opens. Members removed from a room are also removed from all local groups in the room. These members remain repository members, however, even if they are removed from a room.

To change local members' roles:

1. On the room's **Membership** tab, click **Change Role**.
2. In the first dialog box, use the standard member picker to locate and select the room members and groups for whom to change roles.
3. Click **OK** to go to the next step of assigning a new role to the selected members. (Clicking **Cancel** returns to the **Membership** tab.)
4. In the second dialog box, pick the members' role (**Contributor** or **Owner**).
5. Click **OK** to assign the role and return to the **Membership** tab. (Clicking **Cancel** returns to the member-selection dialog box.)

To create a new local group:

1. On the room's **Membership** tab, click **New Group** to open the **Create New Room Group** tab.
2. Type a name for the group (required). The name must be unique among local group names in the room.
3. Optionally, type a plain text description for the group.

4. Click **OK** to create the group and return to the room's member list.

A local group is owned by the room's Owners group (even if removed from the room). Therefore, it can be used in permission sets of governed objects only.

To edit the properties of a local group:

1. Open the room's **Membership** tab.
2. Modify group properties as appropriate, and then click **OK** to implement your changes.

To add room members to a local group:

1. On the room's **Membership** tab, click the name of the group whose membership you want to modify.

   The group's member list opens.
2. On the group member list page, click **Add**.

   A page for locating room members opens.
3. In the left pane, locate and select the room members, groups, and roles to add to the group.
4. With the members selected, click .
5. Click **OK** to add the members and return to the group's member list.

To remove a local group from a room:

1. On the room's **Membership** tab, click **Remove** to open the **Choose Members: Room Members** tab, which lists room members, including local groups, only.
2. In the left pane, locate and select the groups to remove from the room's member list.
3. With the groups selected, click .
4. Click **OK** to remove the groups from the room's member list.

   You return to the **Membership** tab.

Members removed from a room are removed from all local groups in the room, but they remain repository members. Local groups removed from a room, on the other hand, are effectively deleted from the repository.

When a local group is removed from a room, its own member list is emptied and it no longer appears in member lists and member pickers. It also ceases to appear on the list for setting accessors on the **Room Properties: Options** tab, under **Accessors for newly added objects**. The group remains listed on any permission sets it is already on, but its name shows that it has been "deleted." It continues to be owned by the room Owners group, keeping it secure. The built-in local groups (Owners and Contributors) cannot be removed and therefore do not appear on the Remove dialog box.

Manage users as a non-administrator

Collaborative projects sometimes involve repository users working with external users such as clients, auditors, or suppliers. External users typically do not have user accounts administered centrally in the repository, like LDAP users do, for instance. Such mixed groups might perform confidential or proprietary work, and can benefit from membership in the same room.

To address these cases, system administrators can delegate some user-management tasks to non-administrators by assigning them to the role of user Manager (**dce_user_manager**). User managers can perform a variety of user management tasks without being a system administrator. Specifically, user managers can:

- **Browse users and groups**. User managers can access a node in the repository tree called *Administration*, which contains a link to *User Management*, which links to pages for *Users*, *Groups*, and *Roles*.
- **Create new users**. In the Administration area, and on room member pages, user managers have access to a dialog box for creating new users.
- **Modify users**. User managers can unlist certain users, or prevent their names from appearing in the repository user list in a user picker. They can also restrict certain users' access to content.

In addition to this overview topic, the following topics describe managing users as a non-administrator:

- Create new users, page 287
- Modify users, page 289
- Unlist users (conceal members), page 289
- Restricted folders , page 290

Create new users

User managers can create new users at the repository level in the Administration area, or in a room for which they are an owner.

To create a new user:

1. Open the **New User** dialog box in one of these ways:
   - Navigate to **Administration > User Management > Users**. Select **File > New > User**.
   - Navigate to the room to which to add a new user. Open the room's **Properties: Membership** tab by either clicking the **Members** link on the room's home page, or accessing the room's properties. Click the **New User** button.

Controls in the **New User** dialog box are disabled for user managers, except as noted in this procedure.

2. In the **Name** field, type the user's name.
3. The **User Source** property is set to **Inline Password** and user managers cannot change it. This setting means that the user must provide a password that is stored only in the repository. There is no external authentication.
4. In the **Password** field, type the user's password. The password is encrypted and stored in the repository.
5. In the **Password Verify** field, type the user's password again.
6. Type a **Description** for the new user (optional).
7. Type the user's **E-Mail Address**.

   This is the address to which notifications for workflow tasks and registered events are sent.
8. In the **User OS Name** field, type the user's operating system user name.

   This is the user's repository username.
9. Select a **Home Repository** for the user.
10. To prevent the user's name from being included in repository member lists, select the **Is Unlisted** checkbox. Otherwise, the user's name appears in repository member lists, as usual. For more information on this setting, see Unlisting users, later in this chapter.
11. To restrict the user's access to specific folders, cabinets, or rooms, click **Select Folder** to locate and select them in the repository. For more information on this setting, see Restricted folders, later in this chapter.

    Note: To remove some containers from the restricted folder list, open it, select the folders and click **Remove**. To remove all containers from the list, click **Clear**.
12. Select one of the following choices for the user's default folder:
    - **Choose existing folder**. Click **Select Folder** to pick a folder, cabinet or room other than the default folder /*Temp*.
    - **Choose/Create folder with the user name**. This is the default choice.
13. The **Privileges** and **Extended Privileges** settings are set to **None**. User managers cannot change these settings.
14. The user's client capability is set to **Consumer**, and user managers cannot change it.
15. Click **OK** to create the new user.

Modify users

An administrator can modify any user. A user manager can modify only those users created by someone who was, at the time, a user manager but not also an administrator. (When a user manager who is also an administrator creates a user, that user is considered to have been created by an administrator rather than a user manager.)

The user manager role (**dce_user_manager**) must be present in the repository's list of roles so that collaborative services can detect which users can be modified by user managers.

Members can be modified via the User Properties dialog, accessed in the usual manner, either at the repository level or at the room level. All controls that user managers can edit in the New User dialog, they can also edit in the User Properties dialog, with these provisions:

- Modifying a user's name does not take effect until a job is run on the server.
- To change a user's password, replace the masked-input characters (usually bullets or asterisks) with a new value in both the **Password** and **Verify Password** fields.
- The list of folders in the **Restrict Folder Access To** list might include folders for which a user manager lacks BROWSE permission. These folders are indicated in the list by a message stating that a folder cannot be listed. To eliminate such folders from the list, a user manager can click **Clear**. Such folders do not appear in the folder picker.

Unlist users (conceal members)

An unlisted user's name does not appear to regular users in the repository user list. While a user is unlisted, the only places their names appear are:

- User lists in the Administration area.
- User list for adding people to a room (in the **New Room** dialog box or **Add Member** dialog) when viewed by a user manager.
- Member lists of rooms in which user is a member.
- Contexts where the user is already picked for some purpose, such as an permission set entry for an object, the Owner attribute of an object, a member field in a table, or a performer assignment in a Quickflow.
- Applications outside of WDK, such as the Workflow Manager.

Unlisted users appear in user lists with "[unlisted]" after their names, except in room lists.

A group for unlisted users, called **dce_hidden_users**, is created at the root of the repository user list. This group is visible to administrators and to user managers in the Administration area, and administrators should avoid renaming or deleting it. The group's description states that it is managed by collaborative services and its child list should not be modified directly. If a group with the same name already exists, that group is used instead of a new one. If a group with the correct name cannot be found, it is created. Administrators and user managers can open the group to view its children, but they cannot manually add users to or remove users from this group.

Note: Unlisting affects lists, not objects. Content created by an unlisted user is unaffected. Unlisting takes effect as soon as the user manager saves the dialog box.

Restricted folders

When users have anything on their restricted folder list, their access to repository content is limited to objects that are descendants of the listed item. If the restricted folder list is empty, the user has access to all folders and cabinets in the repository, subject to the permissions on those cabinets and folders and subject to folder security.

Folder restriction never applies to:

- Rooms in which the user is a member
- System cabinets required for participation in the repository, such as */System*, */Templates*, and */Resources*

Chapter 23

Forms

This chapter includes:

- Enter data in a form, page 291
- Format text in a form, page 292
- Create a new form, page 294

Enter data in a form

A form provides fields for you to enter and retrieve data. You open a form from a file list or from a task. When a form is attached to a task, it appears either as an attached file or as fields within the task. When you enter data in a form, the data is saved as content, properties, or both. If data is saved as properties only, the form will have a file size of zero.

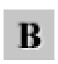
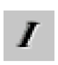
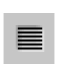
To enter data in a form:

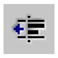
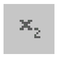
1. If the form opens automatically in a task, go to Step 3.
2. Navigate to the form, select it, and then select **File > Edit**.
3. Enter information as needed. For additional instructions, see Format text in a form, page 292.
4. To clear your changes, click **Reset**.
5. When you are done entering information, click either **Save** or **Submit**.
6. If prompted to confirm, click **Yes**.

Format text in a form

To format text in a form, use the buttons described in Table 26, page 292. Some of the buttons may not appear.

Table 26. Icons used to format text in a form

Button	Description
	Moves the selected text to your clipboard and deletes it from the current location. In certain browsers, the browser security setting might disable this button. To move text to your clipboard, press **Ctrl-X**.
	Copies the selected text to your clipboard. In certain browsers, the browser security setting might disable this button. To copy text, press **Ctrl-C**.
	Pastes the text from your clipboard to the selected location. In certain browsers, the browser security setting might disable this button. To paste text, press **Ctrl-V**.
	Bolds the selected text.
	Italicizes the selected text.
	Underlines the selected text.
	Aligns the current block of text to the left margin.
	Centers the current block of text.
	Aligns the current block of text to the right margin.
	Aligns the current block of text to both the left and right margins.
	Indents the current block of text.

Button	Description
	Removes the indent on the current block of text.
	Formats the selected text as subscript text.
	Formats the selected text as superscript text.
	Formats the selected text as a numbered list.
	Formats the selected text as a bulleted list.
	Changes the color of the selected text.
	Changes the background color of the selected text.
	Undoes the previous action. • Undo does not apply to actions taken by using the right-click menu. • Undo does not apply to changes made to tables. • Some browsers might not let you undo the modification of background color.
	Restores the action that had been undone.
	Inserts an image.
	Turns the selected text into a hyperlink.
	Inserts a table from your clipboard. The table can be in HTML, RTF, or Microsoft Word format.
	Checks spelling.
	Displays the HTML source for the text.

Create a new form

When you create a new form, the form is based on a template that determines the form's fields. Developers create form templates by using EMC Documentum Forms Builder. To use form functionality, you must be assigned the user role of form_user, which is defined by the Forms DocApp.

To create a form:

1. Navigate to where the form will be created.
2. Select **File > New > Form**.
3. In the **Form Name** field, enter a name for the new form.
4. In the **Template** field, select the form template used to create the form.
5. Click **Next**.
6. To enter data in the form, see Enter data in a form, page 291.

Chapter 24

Records

A record consists of recorded information that is evidence of your organization's operations.

A record is either formal or informal. Formal records are created explicitly by filling out form metadata and assigning them to a formal file plan. Informal records are created when files are dragged-and-dropped into retention managed folders.

This chapter includes:

- Declare an item as a formal record, page 295
- Link a record, page 301
- Create a record relationship, page 301
- View a record relationship, page 302
- Remove a record relationship, page 302
- Make library requests, page 302

Declare an item as a formal record

To declare an item as a formal record:

1. Navigate to and select the document to be declared as a formal record.
2. Click **Records > Declare Formal Record**.

   The screen displayed for multiple documents is slightly different from that displayed for one document. It includes an optional field to make one record or individual records of the documents selected.
3. Optionally, you can change the default setting for **Declare selected documents as** from **Individual records** to **One record** if you have multiple documents selected.
4. Click **Select** for the mandatory **File Plan** and select a valid file plan, cabinet or folder. The icon for a valid plan, cabinet, or folder is highlighted. Valid choices could also be buried in a container that is not valid. A valid folder for example could be buried in a cabinet that is not valid.

5. Click **OK** to accept the location for the selected file plan.

   The locator screen closes while the **Declare Formal Record** screen is refreshed displaying the selected file plan and some additional properties. Additional properties include:

   - **Type**, mandatory
   - **Form Template**, mandatory
   - **Unlink source documents**, optional
   - **Hide options**, optional

6. Select a value for the mandatory **Type** and **Form Template** properties. The value selected for the **Type** indicates the type of formal record to create, DoD formal records according to Chapter 2 or Chapter 4 requirements or just regular formal records.

   The value for the **Form Template** is automatically populated according to the value selected for the **Type**.

7. Optionally, you can select the checkbox to **Unlink source documents** only if you want to allow anyone with **Unlink** privileges to remove the source document from its original location in a folder after it has been declared a formal record.

8. Click **Continue** to fill out the form displayed according to the **Form Template** selected. Tables are provided, for your reference if needed, to help you complete the applicable form, refer to Enter values on the applicable form when declare formal record, page 296.

   The top of the form displayed indicates 1 of a number, depending on the number of documents selected, if you are declaring multiple documents as **Individual records**.

9. Click **Finish**.

Enter values on the applicable form when declare formal record

This section describes these:

- Enter values for regular formal records, page 296
- Enter values for Chapter 2 formal records, page 297
- Enter values for Chapter 4 formal records, page 298

Enter values for regular formal records

See Table 27, page 297 for an explanation of common properties for regular formal records.

Table 27. Common properties for formal records

Property	Description
Name	The name of the document being declared.
Subject	The principal topic addressed in a document could be used.
Authors	The author of the document being declared a formal record.
Keywords	The value you type for this field can be used to facilitate searching. The metadata on a form associated to a particular record can be used for keywords.

Enter values for Chapter 2 formal records

There are two forms to choose from for declaring Chapter 2 records, one used to declare documents other than email as formal records and another one used to declare email as formal records:

- Record DoD 5015 Ch2
- Email Record DoD 5015 Ch2

  Do not use Email Record DoD 5015 Ch2 to declare email records from DCM. This form is intended for use when declaring email records using RM Outlook Activator.

See Table 28, page 297 for descriptions of properties that might need further explanation, beyond their property names.

Table 28. Common properties for Chapter 2 formal records

Property	Description
Subject	The principal topic addressed in a document could be used.
Media Type	The material or environment on which information is inscribed (microfiche, electronic, and paper for example).
Application Format	The format based on the application used to create the document being declared a record.

Property	Description
Originating Organization	The official name or code of the office responsible for the creation of the document being declared.
Received Date	The date you received the document.
Primary Addressees	The primary name of someone who authored the document.
Other Addressees	The name of anyone else responsible who can address any questions if necessary.
Locations	The location where the record is kept.
Project Name	The value that provides the amount of security needed to access the record by those members in the group tied to a particular attribute marking.
Supplemental Marking	Select a value if you need additional security on top of the security provided by the value selected for the Project Name. This could be done to further restrict access to a subset of the members in the bigger group.

Enter values for Chapter 4 formal records

Chapter 4 formal records are created as classified or non-classified records differentiated only by their security level whereby any security level higher than zero makes it classified. A security level or ranking of zero is represented by a classification of *No Markings*. Though you can downgrade a classified record through a number of levels from Top Security for example, down to No Markings to make it non-classified (or declassified), you can only go one level up to make a non-classified record classified.

The form makes it possible for you to:

- Classify (file) classified or non-classified records manually or automatically based on the source it is derived from
- Change classification settings to upgrade or downgrade the record
- Schedule downgrade jobs
- Declassify classified records or turn non-classified records into classified records
- Identify reviewers if needed

See Table 29, page 299 for descriptions of properties that might need further explanation, beyond their property names.

Table 29. Common properties for Chapter 4 formal records

Property	Description
Media Type	The material or environment on which information is inscribed (microfiche, electronic, and paper for example).
Format	The format based on the application used to create the document being declared a record.
Originating Organization	The official name or code of the office responsible for the creation of the document being declared.
Derived From	The source to use as the template for completing the form.
Classifying Agency	The name of the classifying agency when you are creating a classified record.
Classified By	The means by which to specify a valid user for this value.
Declassify On	The trigger needed to initiate declassification for classified records. Classified records at some point in time must be declassified. A blank is included among the triggers as the value to be selected for non-classified records when the Current Classification specifies *No Markings*.
Locations	The location where the record is kept.
Project Name	The value that provides the amount of security needed to access the record by those members in the group tied to a particular attribute marking.
Supplemental Marking	Select a value if you need additional security on top of the security provided by the value selected for the Project Name. This could be done to further restrict access to a subset of the members in the bigger group.

Property	Description
Downgrade On	The trigger used to start the downgrade. Though there are 3 triggers (*Date*, *Event*, and *Date and Event*) in the list, a fourth item in the list is left *blank* to allow for a manual downgrade.
Downgrade On Date	The date of the downgrade, if the trigger includes a date.
Downgrade On Event	The event to be downgraded, if the trigger includes an event.
Target Downgrade Level	The security level to downgrade to. The formal record is declassified (becomes a non-classified record with no security) if you select *No Markings* which is equivalent to a ranking of "0" (zero). Any level higher than zero keeps the record classified.
Downgrade Instructions	Instructions for the downgrade.
Reviewed On	The date and time the review was completed, if a review was involved.
Reasons for Classification	The reason for creating a classified record, if a classification guide is not specified for **Derived From** or if one is selected but has no value specified to automatically populate this field.
Exemption Category	The exemption category if a classification guide is not specified for **Derived From** or if one is selected but has no value specified to automatically populate this field. Declassification of a classified record is prevented (stopped) based on the value selected for this field.
Exemption Category (Extend)	The exemption category for the value when the value specified for **Derived From** is anything other than *Classification Guides*.

Link a record

Link a record stored in one policy managed folder to another policy managed folder if the record needs to be regulated by more than one policy managed folder. The record will now inherit policies from all locations.

You can link a record from one policy managed folder to another policy managed folder, in the same file plan or to another policy managed folder in another file plan, only if the policy managed folder selected is open. Linking a record to a policy managed folder that has been closed is not permitted. Additionally, the containment policy must also allow it and the link level of the containment policy must also be set to greater than "1".

You can perform this procedures on both formal and informal records.

To link a record to an open folder or to a file plan:

1. Navigate to and select the record.
2. Select **Edit > Add To Clipboard**.
3. Navigate to the policy managed folder (file plan) to which to link the record.
4. Select **Edit > Link here**.

Create a record relationship

Create a record relationship if a record needs to be related to another record or to another document. You might want to relate two or more records to ensure any further information that is not available in one record is accounted for in a related record.

Record relationships are uni-directional, meaning that the record selected first will be the parent to the second record selected, the child. The child can be reused in another relationship where it can be selected first to be the parent. You can create as many relationships as needed reusing the parent or child and relating them to other records as needed.

You can perform this procedures on both formal and informal records.

To create a record relationship:

1. Navigate to and select a record.
2. Select **Records > Create Record Relationship**.
3. In the selection dialog box, select a second record or a document in a record and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
4. Select the relationship type.

5. Click **OK**.

View a record relationship

You can perform this procedures on both formal and informal records.

To view a record relationship:

1. Navigate to and select an item that is in a record relationship.
2. Click **View > Record Relationships**.

Remove a record relationship

You can perform this procedures on both formal and informal records.

To remove a record relationship:

1. Navigate to and select a record.
2. Click **View > Record Relationships**.
3. Select the appropriate item.
4. Click **Records > Remove Record Relationship**.
5. Click **OK**.

Make library requests

If your organization includes Physical Records Manager functionality, then you can make requests to reserve one or more physical objects to borrow. The library administrator decides who gets what, regardless of whose request came first.

For more information on library requests and Physical Records Manager, see the documentation for EMC Documentum's Retention Policy Services Administrator and EMC Documentum's Records Manager Administrator.

To make a library request:

1. Navigate to a physical object to reserve.

   Contents in a container such as a box or folder are identified on the manifest for a library request once the library request is created. Creating a library request for a box, for example, includes the folder and the document on the manifest if those physical objects are in the selected box. The manifest identifies only the container if it has no contents.

2. Right-click the physical object and select **Make Library Request**.

   Tip: You can select and right-click multiple physical objects at once.

3. Complete the fields as appropriate.

   Table 30, page 303 describes properties that might need further explanation, beyond their property names:

   Table 30. Library requests

Property	Description
Date Requested	The pickup or shipment of requested items is expected 30 days from the day the request was made. You can change the default setting as needed. The **Date Requested** may or may not be honored by the Library Administrator. Even though you can make a library request, the Library Administrator will decide whether or not you can have one or more or any of the physical objects requested.
Notification Preference	Select the preferred means of communicating. The system does not use this though it is intended for direct communication from the Library Administrator.
Shipping Options	Regardless of the radio button selected for the shipping option, you can also select the checkbox to send all requested items at the same time, limiting the request to only one charge-out.

4. Click **Finish**.

To view your library requests, make sure no item is selected in the content pane and click **View > My Requests**.

Note: Completed library requests are deleted from the system by a job. For more information on the state of a library request, see the *Records Manager Administrator User Guide* or *Retention Policy Services Administrator User Guide*.

Chapter 25

Virtual Documents

This chapter includes:

- Virtual documents overview, page 305
- Create a virtual document, page 306
- View the structure of a virtual document, page 306
- View the content of a virtual document, page 307
- Add a descendant to a virtual document, page 308
- Rearrange descendants in a virtual document, page 310
- Remove a descendant from a virtual document, page 311
- Specify that a certain version of a descendant is always used, page 311
- Set a version label for a virtual document, page 312
- Create an archive of a virtual document, page 312
- Convert a virtual document to a simple document, page 314
- Set your virtual document preferences, page 314

Virtual documents overview

A virtual document is a file that contains one or more files nested within it. The virtual document is also called the parent document and the files within it are called descendants or children.

For example, you could create a virtual document for a book and populate the virtual document with the files that comprise the book's chapters. Each chapter is a separate file that is nested within the parent document.

The files nested in a virtual document can themselves be virtual documents. This means you can have multiple levels of nesting.

When you check out a virtual document, you can select whether to check out only the parent document, or check out the parent document and its descendants.

When you view a virtual document, you can select whether to view the document's structure or its content. When you view its structure, Virtual Document Manager (VDM) opens to display the virtual document's descendants.

A virtual document can contain descendants of different file formats. For example, a Microsoft Word file could be the parent file and its descendants could be an Excel spreadsheet and TIFF image.

You can add, remove and rearrange descendants in a virtual document. You can convert a virtual document back to a simple document that contains no descendants.

Virtual documents are designated by this icon: 

Create a virtual document

To create a virtual document, you convert a simple document to a virtual document. This document becomes the parent document, to which you can add descendants.

To create a virtual document:

1. Navigate to and select the file to be converted.
2. Select **Tools > Virtual Document > Convert to Virtual Document**.
3. Add descendants, as described in Add a descendant to a virtual document, page 308.

View the structure of a virtual document

When you view the structure of a virtual document, Virtual Document Manager (VDM) opens to display the virtual document's descendants. From VDM, you can add, remove, or change the location of descendants within the virtual document. You can also perform standard file operations on descendants by using the procedures you would use for any file in the repository.

To view the structure of a virtual document:

1. Navigate to the virtual document.
2. Select the virtual document.
3. Select **Tools > Virtual Document > View Virtual Document**.
4. To display the descendants in the navigation pane, do one of these:

- To display the next level of descendants, click the plus sign (+) next to the virtual document.

  If a descendant is itself a virtual document, view its descendants by clicking its plus sign (+).
- To display all descendants, select the virtual document, and then select **Display > Expand selection**

5. To simultaneously display both the repository directory structure and the virtual document structure, select **Display > Show all**.

   To hide the repository directory structure, select **Display > Show virtual document**.

View the content of a virtual document

When you view the content of a virtual document, the content opens in an editing application.

If the repository includes XML functionality and if you view an XML-based virtual document, you can view both the parent and descendants in a single, read-only file. If there is no content in a virtual document, then Virtual Document Manager (VDM) automatically displays the virtual document's structure.

To view the content of a virtual document in read-only mode:

1. Navigate to the virtual document and select it.
2. Select **File > Open (Read Only)**.

   DCM does one of three things, depending on how your opening options are set in your virtual documents preferences, as explained in Set your virtual document preferences, page 314.
3. Do one of these:
   - If DCM displays the document's content, skip the rest of this procedure.
   - If DCM prompts you to select between content and structure, select **Open the content of the document**, and then click **OK**.
   - If DCM displays the document's structure through VDM (instead of displaying its content through an editing application), then select the document name within the header of VDM, and then select **File > Open (Read Only)**.

Add a descendant to a virtual document

To add a descendant, you must have adequate permissions for accessing the parent document. You can add the same document to a virtual document more than once.

To add a descendant to a virtual document:

1. Do one of these:
   - To select the descendant now, navigate to the descendant and add it to your clipboard.
   - To select the descendant later or to create a new file as the descendant, skip this step. You will select the descendant later in this procedure.
2. Navigate to the parent document and view its structure. For instructions on viewing the structure, see View the structure of a virtual document, page 306.
3. Do one of these:
   - To use a descendant from your clipboard, select **Tools > Virtual Document > Add Child > From Clipboard**, then select the descendant, and then click **OK**.
   - To navigate to the descendant in the repository, select **Tools > Virtual Document > Add Child > From File Selector**, select the descendant, and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
   - To create a new file to be used as the descendant, select **Tools > Virtual Document > Add Child > Using New Document**.

   If the parent document is not already checked out to your computer, DCM checks it out. If the intended parent is not a virtual document, the system automatically converts the document to a virtual document.
4. If you chose to create a new file to be used as the descendant, then create the new file by using the standard procedure for creating a new file. Otherwise, skip this step.
5. Check in the parent document as follows:
   a. Select the parent document.
   b. Select **Tools > Virtual Document > Save Changes**.
   c. Click **OK**.
   d. Select checkin options and click **OK**.

   The new descendant is added as the last descendant in the parent document.

To add descendants by drag-and-drop:

1. Navigate to the parent document and view its structure in the navigation pane.
2. In either the content pane or a new window, navigate to the files to add as descendants.

Note: To open a new window, select **Tools > New Window**.

3. Drag-and-drop the files from Step 2 to the appropriate location in the parent, dropping the files by positioning your mouse pointer either high, low, or midway on an existing descendant, as described in Table 31, page 309.

   A shortcut menu appears.

4. In the shortcut menu, select **Add here**.

   The file is added to the parent document. If you did not select a specific location within the descendants, the file is added as the last descendant in the document. If the intended parent is not a virtual document, the system automatically converts the document to a virtual document.

   If the parent document is not already checked out to your computer, DCM checks it out.

5. Check in the parent document as follows:

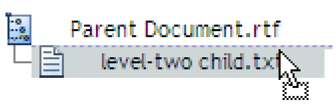
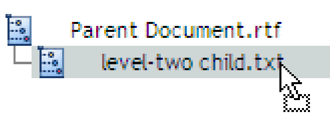
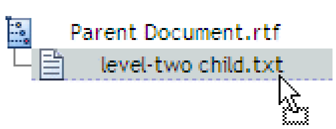
   a. Select the parent document.

   b. Select **Tools > Virtual Document > Save Changes**.

   c. Click **OK**.

   d. Select checkin options and click **OK**.

Table 31. Position of your mouse pointer when you use drag-and-drop in a virtual document

Mouse pointer	Result
Position the mouse pointer high on the target file, as shown here.  	The added files become the descendants that come before the target file in the order of descendants.
Position the mouse pointer midway on the target file, as shown here.  	The added files become descendants of the target file. If the target file is a simple document, DCM converts it to a virtual document.
Position the mouse pointer low on the target, as shown here.  	The added files become the descendants that come after the target file in the order of descendants.

Rearrange descendants in a virtual document

To reorder descendants in a virtual document:

1. Navigate to the virtual document and view its structure, as described in View the structure of a virtual document, page 306.)
2. Select the parent document.
3. Select **Tools > Virtual Document > Reorder Children**.
4. Select the descendant.
5. Click **Up** or **Down** to move the descendant up or down in the list.
6. Repeat Step 4 and Step 5 for each descendant to be reordered.
7. Click **OK**.

   If the parent document is not already checked out to your computer, DCM checks it out.
8. Select the parent document.
9. Select **Tools > Virtual Document > Save Changes**.
10. Click **OK**.
11. Select your checkin options and click **OK**.

To move descendants to other locations in a virtual document:

1. Navigate to the virtual document and view its structure, as described in View the structure of a virtual document, page 306.
2. In either the tree pane or a new window, navigate to the descendant.

   Note: To open a new window, select **Tools > New Window**.
3. Drag-and-drop the descendants to the appropriate location in the parent, dropping the descendants by positioning your pointer either high, midway, or low on another descendant, as described in Table 31, page 309.

   A shortcut menu appears.
4. In the shortcut menu, click **Reposition**.

   If the parent document is not already checked out to your computer, DCM checks it out.
5. Check in the parent document as follows:

   a. Select the parent document.

   b. Select **Tools > Virtual Document > Save Changes**.

   c. Click **OK**.

d. Select your checkin options and click **OK**.

Remove a descendant from a virtual document

When you remove a descendant from a virtual document, the descendant's parent document will be checked out for you if it is not already checked out. Removing descendants does not delete the files from the repository. It only removes the files from the virtual document structure.

To remove a descendant from a virtual document:

1. Navigate to the virtual document and view its structure, as described in View the structure of a virtual document, page 306.
2. Select the descendants to remove.
3. Select **Tools > Virtual Document > Remove Child**.

   If the parent document is not already checked out to your computer, DCM checks it out.
4. Check in the parent document as follows:
   a. Select the parent document.
   b. Select **Tools > Virtual Document > Save Changes**.
   c. Click **OK**.
   d. Select your checkin options and click **OK**.

Specify that a certain version of a descendant is always used

You can specify that a particular version of a descendant is always used when a virtual document is opened or exported. Typically, a virtual document always uses the CURRENT version of a descendant. But you can set a binding rule that specifies that another version is used.

If the version of the descendant is missing, then the virtual document has a *broken binding*. In your preferences, you select whether to have Virtual Document Manager (VDM) display or ignore broken bindings. See Set your virtual document preferences, page 314.

To specify that a certain version of a descendant is always used:

1. Navigate to and select a descendant document in a virtual document. You can navigate to a descendant by viewing the structure of the virtual document, as described in View the structure of a virtual document, page 306.
2. Select **Tools > Virtual Document > Fix to Version**.

   If the parent document is not already checked out to your computer, DCM checks it out.
3. In the **Always Use** field, select the version to fix to the virtual document.
4. Click **OK**.
5. Check in the parent document as follows:
   a. Select the parent document.
   b. Select **Tools > Virtual Document > Save Changes**.
   c. Click **OK**.
   d. Select your checkin options and click **OK**.

Set a version label for a virtual document

To set a version label for a virtual document:

1. Navigate to the virtual document and select it.
2. Select **Tools > Virtual Document > Modify Version Labels**.
3. Enter a version label.
4. To apply the version label to all descendants of the virtual document, check **apply to all descendants**.
5. Click **OK**.

Create an archive of a virtual document

A archived of a virtual document is called a snapshot.

To view a list of snapshots created for a virtual document:

1. Navigate to the virtual document and select it.
2. Select **View > Snapshots**.

To create a snapshot:

1. Navigate to the virtual document and select it.
2. Select **Tools > Virtual Document > New Snapshot**.
3. In the **Create** tab, do these:
   a. Enter a name for the snapshot.
   b. Select a location for the new snapshot.
   c. Select the type of snapshot.
   d. To freeze the snapshot, make sure **Freeze Snapshot** is checked. This should be checked by default. By freezing the snapshot, you ensure that the frozen version of the document and frozen version of each descendant cannot be changed without creating a new version.
4. On the **Info** tab, set properties as described in Table 12, page 164 in the topic Set properties, page 163.
5. Set information in any remaining tabs as appropriate. For information on the functionality affected by those tabs, see the topic in this guide that covers that functionality.
6. Click **Finish**.

To freeze or unfreeze a snapshot:

1. Navigate to the snapshot and select it.
2. Select one of these:
   - **Tools > Virtual Document > Freeze Snapshot**

     Freezing a snapshot blocks users from editing the frozen version of the document or the frozen version of each descendant. Any changes a user makes to the document or a descendant can be saved only as a new version of the document or descendant.
   - **Tools > Virtual Document > Unfreeze Snapshot**

     Unfreezing a snapshot lets users again edit the document and descendants without versioning. However, if a descendant is part of multiple frozen snapshots, then you must unfreeze all the snapshots to edit the descendant.

Convert a virtual document to a simple document

You can convert a virtual document to a simple document only if the virtual document has no descendants.

To convert a virtual document to a simple document:

1. Navigate to the virtual document.
2. If you have not already done so, remove all descendants from the virtual document. See Remove a descendant from a virtual document, page 311.
3. Select the virtual document.
4. Select **Tools** > **Virtual Document** > **Convert to Simple Document**.

Set your virtual document preferences

To set your virtual document preferences:

1. Select **Tools** > **Preferences**.
2. Select the **Virtual Documents** tab and complete the fields in Table 32, page 314.

Table 32. Virtual document preferences

Property	Description
Opening options	Select what happens when you open a virtual document by clicking its name. This does not apply if the virtual document is already opened in Virtual Document Manager (VDM): • **View structure**: When you click the virtual document's name, the first level of nested files appears. • **View content**: When you click the virtual document's name, a read-only copy of the content appears. • **Prompt each time**: When you click the virtual document's name, you are prompted to select to display the structure or the read-only content.

Property	Description
	If there is no content in a virtual document, then VDM automatically displays the virtual document's structure, regardless of how you set this preference.
Bindings	Select whether VDM shows broken bindings. A binding is broken if VDM cannot find the version of a component specified by the component's binding rule
Copy	Select what happens when you copy a virtual document to your clipboard. You can select one of these: • **Root only**: Copies the content and properties of the parent file only. • **Root and descendants**: Copies the parent file and all the descendants nested in the parent file, including descendants of descendants and so on. • **Root and link to existing descendants**: Copies the parent file and references the descendants. • **Prompt me each time**: Prompts you to select what to copy.
Checkout	Select what happens when you attempt to check out an item that is locked by another user: • **Download as read-only**: Downloads a copy of the item as read-only. • **Prompt me each time**: Prompts you to select whether to download as read-only.

3. To save your changes, click **OK**.

Chapter 26

PDF Annotations

This chapter includes these sections:

- PDF annotations overview, page 317
- Configure PDF Annotation Service to open when user views a PDF, page 317
- Add comments to a PDF document, page 318
- View comments in a PDF document, page 318

PDF annotations overview

If your organization has installed the EMC Documentum PDF Annotation Service, then you can store comments created in Adobe Acrobat or Reader into a repository. You can view and enter comments in PDFs directly from DCM.

Comments are associated with a specific version of a document. If a document is versioned, the comments on the previous version are not migrated to the new version.

Example: If you check out a 1.0 CURRENT version of a document, and then a second user adds comments to the document, the comments are associated with the 1.0 version. If you then check in and change the version number to 1.1, then when you view the 1.1 CURRENT version, you will not see the comments from the 1.0 version.

To use PDF Annotation Services, you must configure DCM to open PDF Annotation Service when you view a PDF.

Configure PDF Annotation Service to open when user views a PDF

To configure PDF Annotation Service to open when a user views a PDF:

1. Select **Tools > Preferences**.

2. Select the **Formats** tab.
3. In the **Choose object type** list, select **Document (dm_document)**.
4. In the **Object's primary format** list, select **Acrobat PDF (pdf)**.
5. In the **Application for viewing** list, select **Comment**.
6. If appropriate, repeat Step 3 to Step 5 for documents of other formats (such as Microsoft Word). If doing so, do not select **Acrobat PDF (pdf)** in Step 4. Instead, select the appropriate format.

Add comments to a PDF document

To add comments to a PDF document:

1. Navigate to a PDF document.
2. Select the document and then select **File > Open (Read Only)**.

   The PDF opens in read-only mode in a separate window, with its comments.

   If you use Internet Explorer, then the browser also launches an extra blank page. To avoid this, select the Internet Explorer **Tools > Internet Options** menu option, then select the **Advanced** tab and make sure the **Reuse windows for launching shortcuts** option is specified.
3. To add comments, use the Acrobat commands for doing so. For more information, see your Acrobat documentation.
4. To save your comments to the repository, click Adobe's **Send and Receive Comments** button.

   Comments that are saved in a repository have the Acrobat .XFDF format.

View comments in a PDF document

To view comments in a PDF document:

1. Navigate to a PDF document.
2. Select the document and then select **File > Open (Read Only)**.

   The PDF opens in a separate window, with its comments.

   If you use Internet Explorer, then the browser also launches an extra blank page. To avoid this, select the Internet Explorer **Tools > Internet Options** menu option, then select the **Advanced** tab and ensure that the **Reuse windows for launching shortcuts** option is specified.

Chapter 27

Relationships

A relationship is a connection between two items in a repository. Relationships allow DCM to process the items together. Relationships also allow users to access certain items by first accessing other related items. For example, if a document has been annotated by several reviewers and if each annotation has a relationship to the original document, a user can access the annotations by viewing the document's relationships.

To view an item's relationships:

1. Navigate to the item and select it.
2. Select **View > Relationships**.

To create a relationship between two items:

1. Navigate to the item to be the parent and select it.
2. Right-click the item and select **Add Relationship**.
3. In the selection area, select the item to relate to this item and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
4. Click **Next**.
5. In the **Relationship** list, select the type of relationship.
6. Click **Finish**.

To create a relationship between two items by drag-and-drop:

1. Navigate to either of the items.
2. If the other item is in a different location, open an additional browser window by selecting **Tools > New Window**, and then navigate to the other item.
3. Drag-and-drop the child item to the parent item.
4. In the **Relationship** list, select the type of relationship.
5. Click **Finish**.

To remove a relationship between two items:

1. Navigate to either of the items and select it.
2. Select **View > Relationships**.
3. Select the relationship to remove.
4. Click **File > Remove Relationship**.
5. Click **OK**.

Chapter 28

Renditions and Transformations

This chapter describes the following:

- Renditions and transformations overview, page 323
- Viewing a list of the different renditions of a file, page 324
- Importing a rendition, page 324
- Transforming a document to PDF or HTML format, page 325
- Creating a rendition through transformation, page 325
- Creating a related file through transformation, page 326
- Viewing saved transformation properties, page 328
- Removing a saved transformation, page 328

Renditions and transformations overview

A rendition is an alternate copy of a file or an alternate file that is associated with an original file. For example, a rendition can be a copy of an image in a different file format or in a different resolution.

You can display all of a file's renditions by selecting the menu option **View > Renditions**.

You can create renditions outside the repository and import them in, or you can generate renditions within DCM, through transformation.

Transformations let you automatically transform the look and format of an existing file in order to create a new rendition associated with the original file.

When transforming a file, you choose a preset transformation task and enter any applicable transformation parameters. The transformation profiles that are available for a given file depend on the file's format and the EMC Documentum products installed and configured for the repository.

Transformations occur on one item at a time and are processed asynchronously, meaning that transformed items and renditions might not be immediately available. You receive a notification when a transformation is completed or if a transformation fails.

When a file is versioned, its renditions, including any thumbnail renditions, are not carried forward with the new version of the file automatically. If you create a new version of the file, the renditions remain with the previous version. However, DCM may automatically generate new renditions when you check in and version a file if it was selected during rendition creation. See Creating a rendition through transformation, page 325 for more information on automatically updating a rendition upon versioning.

Note: Some rendition and transformation functionality is available only on repositories that are configured with EMC Documentum's Content Transformation Services products. Without the presence of these products, some rendition and transformation functions described in this guide may not be available.

Note: DCM does not allow multiple renditions of the same format. Therefore, for any new renditions created, DCM replaces any existing renditions of the same format. For example, a Microsoft Word document can only have one Acrobat PDF rendition at any time.

Viewing a list of the different renditions of a file

To view a list of the different renditions of a file

1. Navigate to and select a file.
2. Select **View > Renditions**.
   DCM shows all of the renditions for the file.

Importing a rendition

To import a file from outside the repository to use as a new rendition for an existing repository file

1. Navigate to and select a file for which to import a rendition.
2. Select **File > Import Rendition**.
3. In the **File to Import** field, enter the file to import. You can type the path to the file, or you can browse to locate the file.
4. In the **Format** field, select the rendition's file format if the correct format does not appear automatically.
5. Click **OK**.

The file is imported as a rendition of the primary rendition.

Transforming a document to PDF or HTML format

DCM uses EMC Documentum Content Transformation Services products to provide the functionality to transform documents to PDF or HTML format. When a document is selected for transformation to PDF or HTML format, the request is sent to a queue where it awaits processing by the Content Transformation Services product. The default transformation parameters are used for that document type. When processing is complete, a new file in either PDF or HTML format is stored in the original's list of renditions.

It may also be possible, depending on what other Documentum products are installed on your system, to transform a document to PDF or HTML formats with options. See Creating a rendition through transformation, page 325 and Creating a related file through transformation, page 326 for more information.

To transform a document to PDF or HTML

1. Navigate to and select a document to transform to PDF or HTML.

   Note: You can transform a parent file or another rendition. (Locating renditions is described in Viewing a list of the different renditions of a file, page 324.)

2. Select **Tools > Transform > PDF Rendition** or **Tools > Transform > HTML Rendition**.

   The transformation request is immediately sent to the appropriate queue for processing and appears in the renditions list for the parent file when it is completed.

Creating a rendition through transformation

DCM uses EMC Documentum Content Transformation Services products to transform a file using a set of properties in order to create a new rendition.

Transformations to create new renditions occur on one item at a time and requests are processed asynchronously, meaning that new renditions may not be available immediately. You receive a notification in your Inbox when a transformation is completed or if a transformation fails.

Caution: Not all features mentioned in the following procedure are available for all file formats and some file formats cannot be transformed. Format availability depends on the Content Transformation Services products installed and any special configuration on your system.

To create a new rendition through transformation

1. Navigate to and select the file to transform to create a new rendition.

   Note: You can transform a parent file or another rendition. (Locating renditions is described in Viewing a list of the different renditions of a file, page 324.)

2. Select **Tools > Transform > More Formats**.

3. The **Transform** wizard appears. Do the following:

   a. Select a transformation profile and click **Next**.

   b. If the **Transformation Details** screen appears, enter any information necessary for setting the parameters of the transformation and click **Next**.

   c. In the **Save As** screen, select **Create a New Rendition** and click **Next**.

   d. In the **Rendition Definition** screen, complete the fields as required. At this time, you may choose to save the transformation so that it is performed each time the file is versioned.

   e. If you have selected multiple files for this transformation, click **Next**. Alternatively, if you wish to apply the selected parameters to all of the files selected for the transformation, or if you have selected only one file to transform, click **Finish**.

   The transformation request is immediately sent to the appropriate server queue for processing. When the transformation is complete, a notification is sent to your Inbox.

Creating a related file through transformation

DCM uses EMC Documentum Content Transformation Services products to transform a file using a set of properties in order to create a new related file.

Transformations to create new related files occur on one item at a time and requests are processed asynchronously, meaning that new files may not be available immediately. You receive a notification in your Inbox when a transformation is completed or if a transformation fails.

Caution: Not all features mentioned in the following procedure are available for all file formats and some file formats cannot be transformed. Format availability depends on the Content Transformation Services products installed and any special configuration on your system.

To create a new related file through transformation

1. Navigate to and select the file to transform to create a new related file.

   Note: You can transform a parent file or a rendition. (Locating renditions is described in Viewing a list of the different renditions of a file, page 324.)

2. Select **Tools > Transform > More Formats**.

   The **Transform** wizard appears.

3. Select a transformation profile and click **Next**.

4. If the **Transformation Details** screen appears, enter any information necessary for setting the parameters of the transformation and click **Next**.

5. In the **Save As** screen, select **Create a New Object** and click **Next**.

6. The **New Object Definition** screen enables you to enter or apply properties for the new files. This includes name, title, permission set, lifecycle, and location. The only required property is the name. This screen also enables you to choose whether to perform this transformation every time these new files are versioned.

   Do the following:

   a. Enter a name for the new file. The file name is entered by default.

   b. If you wish, enter a title for the file.

   c. If you wish, select an alternate object type for the file.

   d. Click **Edit** to enter an alternate permission set to the file.

   e. To apply a lifecycle to the files, click **Edit**.

   f. Select the location for the new file. You have two options:

      - **Same as parent file**

        Places the new file in the same cabinet or folder location as the original.

      - **New location**

        Requires you to select a new location in an edit window.

   g. To perform this transformation each time the original file is versioned, click **Save Transformation**.

7. If you have selected multiple files for this transformation, click **Next**. Alternatively, if you wish to apply the selected parameters to all of the files selected for the transformation, or if you have selected only one file to transform, click **Finish**.

   The transformation request is immediately sent to the appropriate server queue for processing. When the transformation is complete, a notification is sent to your Inbox.

Viewing saved transformation properties

A Transformation Properties section appears in the Properties dialog box for a file that has saved transformations. Saved transformations are performed each time the file is versioned. This option is set when creating a new rendition or a new related file through transformation. The transformation request is stored and related to the source file. When the source file is versioned, the transformation is automatically applied to the new version using the same parameters as the original transformation and the transformation request is sent to the appropriate server for processing.

The Transformation Properties panel in the Properties dialog box shows all of a file's saved transformations that will be applied to a file when it is versioned. Selecting a saved transformation from the list opens the transformation properties page with all of the parameters for the saved transformation.

To view transformation properties

1. Navigate to and select an item with transformation properties.
2. Select **View > Properties > Transformation**.

   The **Properties** page opens with the **Transformation Properties** tab selected. The saved transformations for the item are listed, detailing the name and description of the transformation profile used, the output format, and whether the output is a rendition or related object.
3. Select the name of a saved transformation in the list to open the properties for that transformation.

Removing a saved transformation

Saved transformations are performed each time the file is versioned. This option is set when creating a new rendition or a new related object through transformation. The transformation request is stored and related to the source file. When the source file is versioned, the transformation is automatically applied to the new version using the same parameters as the original transformation and the transformation request is sent to the appropriate server for processing.

The Transformation Properties panel in the Properties dialog box shows all of a file's saved transformations that will be applied to a file when it is versioned.

To cease automatic transformations each time a file is versioned, the transformation request can be removed from the Transformation Properties. Clicking the transformation link in the **Name** column opens a property dialog box that displays the parameters of the transformation. These parameters can be used to distinguish between different transformations saved for the file, that use the same transformation profile.

To remove a saved transformation

1. Navigate to the item for which to remove saved transformations.
2. Select **View > Properties > Transformation**.

   The **Properties** page opens with the **Transformation Properties** tab selected. The saved transformations for the item are listed, detailing the name and description of the transformation profile used, the output format, and whether the output is a Rendition or Related Object.
3. Select the name of a saved transformation in the list to open the properties for that transformation.

   The transformation parameter dialog box opens, displaying the parameters that have been chosen for the saved transformation.
4. Click **Close** to close the Parameters dialog box.
5. On the line for the saved transformation that you wish to remove, select **Remove**.

   The transformation is removed from the file's saved transformation list and is no longer performed when the file is versioned.

Chapter 29

Presets

This chapter includes:

- Presets overview, page 331
- Create a preset, page 332
- Edit an existing preset, page 332
- Edit preset rules, page 333
- Preset rules, page 333
- Remove a preset from an item, page 336
- Delete a preset, page 336
- The DCM Express preset, page 336

Presets overview

A preset determines the selections or actions available in particular situations. Creating a preset offers a way to reduce screen options to those options that are relevant to the user's task in the particular situation.

A preset is assigned to a particular item or set of items. For example, a preset could be assigned to a particular user group. Or a preset could be assigned to a particular user group when combined with a particular folder location. The item or set of items is called the preset's *scope*. The scope assigned to each preset must be unique.

A preset is comprised of one or more rules. Each rule determines the selections or actions available within a specific functional area. For example, a rule can determine available lifecycles, available actions, or available autocomplete text. For a list of the functional areas for which you can create rules, see Preset rules, page 333:

When you create a preset for a folder, the rules apply not only to files that are created in the folder, but also to files that are imported into the folder. For example, after importing a file into a folder that allows only LifecycleA to be applied, the user would not be able to apply LifecycleB to that file.

Preset rules do not descend to subfolders.

The default order of precedence for applying presets is as follows: a preset for a location takes first precedence; then a preset for a user; then a preset for a role; then a preset for an object type. Customized installations might vary.

To access presets, navigate to **Administration / Presets**.

It is important to note that presets are not used to provide security.

Create a preset

To create a new preset:

1. Navigate to **Administration / Presets**.
2. Select **File > New > Preset**.
3. Enter a name for the preset.
4. Optionally, you can use an existing preset as a template for the new preset. To use an existing preset as a template for the new preset, click **Select** next to the **Start with another preset** option, select the existing preset, and click **OK**.
5. Select the type of item the preset is to apply to by clicking **Select** next to the type of item, selecting the item, and clicking **OK**.
6. Select whether the new preset applies to all repositories or just to the current repository.
7. Click **Next**.
8. To edit the **Rules** tab, see Edit preset rules, page 333.

Edit an existing preset

To edit a preset:

1. Navigate to **Administration / Presets** and select the preset.
2. Select **File > Edit**.
3. To edit the **Rules** tab, see Edit preset rules, page 333.

Edit preset rules

This procedure assumes you have opened a preset by either creating a new preset or editing an existing one.

To edit preset rules:

1. In the **Rules** tab, in the first list box, select the type of rule. For rule descriptions, see Preset rules, page 333.
2. In the **Available** list box, do one of these:
   - For the **Actions** rule: Select the action to exclude and click the arrow to move your selection to the **Excluded** list box. To display additional actions, use the fields above the list.
   - For the **Attributes** rule: Select an object type, then select an property, then type in the values to be available as auto-attributes for that property, and then click **Apply**.
   - For the **Navigation** rule: Select the repository nodes available when a user logs in, and in the **Section to start in** field, select which node is the first node that opens when the user logs into a repository.
   - For all other rules: Select the item to which to give access and click the arrow to move your selection to the **Selected** list box. To display additional values, use the fields above the list.

   The rules you have selected for this preset appear in the summary at the bottom of the page.
3. To select another rule or another rule value, return to Step 1.
4. Click **Finish**.

Preset rules

See Table 33, page 333 for an explanation of the functions you can assign to a preset.

Table 33. Preset rules

Preset rule	Description
Permissions	The permission sets that can be assigned to an item.

Preset rule	Description
Formats	The file formats that can be assigned to new, imported, or checked in files. Additional formats based on the file's extension might also be available.
Types	The repository object types that can be assigned to new or imported files. Each item in a repository has an associated object type. The object type defines the characteristics of the item. For example, there is an object type for documents, an object type for folders, and an object type for email messages. Your organization can create customized object types.
Groups	The filters available for narrowing a list of users or groups in a selection list for a permission set or quickflow.
Workflows	The workflow templates available for starting a new workflow.
Lifecycles	The lifecycles available to assign to a file. Note that when a user assigns a lifecycle to a file, the list of available lifecycles might be narrowed further by the file's object type.
Templates	The templates available for creating new files. Note that when a user selects a template for creating a new file, the list of templates might be narrowed further by the type and format of the file the user is creating.
Actions	The menu items, tool buttons, action links, and action buttons available.

Preset rule	Description
Attribute	The default values available for a property when a file is created or linked. This setting follows these rules: • If a property is single-valued and the value is already set, the existing value is not overridden. • If the property is multi-valued, the specified value is added. • If the data dictionary does not allow the value, the value is not set.If the auto-attribute set of values gets out of synchronization with the data dictionary, the data dictionary set of values is presented to the user. • If this setting is applied to a folder, it is applied to all files imported into the folder. When a preset is modified , the changes apply only to newly created items. • If this setting is applied to a user, role, or group, it is applied to all files created by that user or the users in that role or group. • These cannot have preset values: the object_name attribute, the a_content_type attribute, read-only attributes. If an attribute is read-only because of an item's current lifecycle and state, the auto-attribute value is not set. • Preset attributes are limited to these types: string, integer, double. • For import, if all mandatory attribute values are set by the auto-attribute preset, the import is silent after the user selects files for import.
Navigation	The repository nodes available. This applies only when the preset is assigned to a user, group, or role. When you select this rule, you choose the repository nodes

Preset rule	Description
	available and you also designate which node is the first node that opens when a user logs in.

Remove a preset from an item

To remove a preset from an item:

1. Navigate to **Administration / Presets** and select the preset.
2. Select **File > Edit**.
3. Click **Select** next to the type of item the preset applies to.
4. In the selection dialog box, clear the item by selecting it and clicking the remove arrow.

Delete a preset

When you delete a preset, it is removed from all the items that use it.

To delete a preset:

1. Navigate to **Administration / Presets**.
2. Select the preset.
3. Select **File > Delete**.
4. To view technical information, click **Help**.
5. At the warning prompt, click **Continue**.

The DCM Express preset

The DCM Express preset governs repository access for users who are given the express_user role. The DCM Express preset is intended for users who need only limited access to repositories. Table 34, page 337 describes the access granted by the DCM Express preset.

Administrators who belong to the dmc_wdk_presets_coordinator role can edit the DCM Express preset. To edit the DCM Express preset, use the usual procedure for editing a preset.

Table 34. Express user capabilities

Preset	Values
Formats	None | Text | PDF | all MS Office formats
Types	dm_document | dm_folder
Templates	Displays templates that correspond to formats
Actions	Document: Content transfer, subscriptions, email, quickflow, Properties, clipboard actions, create, delete Excluded: Relationships, export to CSV, favorites, notifications, lifecycle and virtual document actions, tools (most); new workflow template, room, form, cabinet
Locations	My Home Cabinet | Cabinets | Subscriptions | Recent Files | Inbox (not Searches, Categories, Administration)

Chapter 30

Permission Sets

This chapter includes:

- Permission sets overview, page 339
- Basic permissions, page 340
- Extended permissions, page 340
- Create or edit a permission set, page 341
- Edit permissions, page 342

Permission sets overview

Each item in the repository has a permission set that determines who can access the item. The permission set lists the users and groups who have access to the item and specifies the level of access given to each. For example, a permission set might give one user permission only to view an item, while it gives another user additional permissions to edit and delete the item.

The permission set specifies the level of access by assigning each user or group basic permissions and extended permissions. For descriptions see Basic permissions, page 340 and Extended permissions, page 340.

When you create a new item in the repository, you choose the permission set that is assigned to the item. If you do not choose a permission set, DCM automatically assigns the permission set specified in your user properties as your default permission set.

To access permission sets, navigate to **Administration / Security**.

Basic permissions

When adding a user or group to a permission set, you assign the user or group one of the permission levels described in Table 35, page 340.

Table 35. Basic permissions

Permission level	Permissions
None	No access is permitted to the item.
Browse	User can view the item's properties but not the item's content.
Read	User can view both the properties and content of the item.
Relate	User can add annotations to the item.
Version	User can modify the item's content and they can check in a new version of the item (with a new version number). The user cannot overwrite an existing version or edit the item's properties.
Write	User can edit item properties and check in the item as the same version.
Delete	User can delete items.

Extended permissions

You can add one or more extended permission to a user or group's basic permission level in a permission set. Extended permissions are described in Table 36, page 340.

Table 36. Extended permissions

Extended permission	Description
Execute Procedure	User can change the owner of an item and can run external procedures on certain item types.
Change Location	User can move the item.
Change State	User can change the item's lifecycle state.
Change Permission	User can modify the item's permissions.

Extended permission	Description
Change Ownership	User can change the owner of the item
Extended Delete	User can delete the item.

Create or edit a permission set

To create or edit a permission set:

1. Navigate to **Administration / Security**.
2. Do one of these:
   - To create a new permission set, select **File > New > New Permission Set**.
   - To edit an existing permission set, navigate to and select the permission, and then select **View > Properties > Info**.
3. Enter or edit the name of the permission set.
4. To change who owns the permission set, click **Select Owner**, select the new owner, and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.
5. In the **Class** field, select one of these:
   - **Regular**

     The permission set can be used only by the user or group that creates it. Any user or group in the repository except the repository owner can create a regular permission set.
   - **Public**

     The permission set can be used by anyone in a repository. Any user or group in the repository can create a public permission set. Public permission sets can be modified or deleted only by the permission set owner, a superuser, a system administrator, or the repository owner. If the repository owner is the owner of a particular permission set, it is called a system permission set.
6. Click **Next** to open the **Permissions** tab.

   By default, a permission set includes the **dm_owner** user and the **dm_world** group. The dm_owner user is the user who is the owner of the permission set. The dm_world group is the group that contains all repository users.
7. To edit the **Permissions** tab, see Edit permissions, page 342.

Edit permissions

To edit permissions:

1. If already viewing the **Permissions** tab, go to Step 2. If you are not already viewing the **Permissions** tab, select a file or permission set and then select **View > Properties > Permissions**.

   Tip: You can edit permissions for multiple items at once by selecting multiple items and selecting **View > Properties > Permissions**. The **Permissions** tab displays only the values that are common to all the items selected.

2. To assign a different permission set, click **Select**, select the permission set, and click **OK**. For detailed steps see Locate an item in a selection dialog box, page 155.

3. To change the assigned permission levels, do these in the **Additional Permissions** or **Additional Common Permissions** area (depending on which is displayed):

   a. To add users or groups and assign them permissions, click **Add**, select the users or groups, and click **OK**. Go to Step c.

   b. To edit permissions for users or groups, select the users or groups and click **Edit**.

   c. In the **Basic Permissions** list, select the permission level for the user or group. For descriptions of basic permissions, see Basic permissions, page 340.

   d. In the **Extended Permissions** list, select any extended permissions to give the user or group. For descriptions of extended permissions, see Extended permissions, page 340.

   e. Do one of these:

      - If you did one of these, click **Finish**:
        - Selected just one user or group.
        - Selected multiple users or groups but will apply the same level to all remaining ones.
      - If you selected multiple users or groups and will apply a different level to the next one, click **Next** and return to Step c.

   f. To make more changes to permission levels, repeat Step a through Step e.

   g. To remove users or groups from the permission set, select the users or groups and click **Remove**.

4. To restrict users or groups from access in repositories where Trusted Content Services is enabled, do these in the **Restrictions** or **Common Restrictions** area (depending on which is displayed):

   a. To add restrictions to additional users or groups , click **Add**, select the users or groups, and click **OK**. Go to Step c.

   b. To edit restriction on users or groups, select the users or groups and click **Edit**.

If validation conflicts are displayed, do one of these:

- To continue despite the conflicts, click **OK**.
- To resolve the conflicts, click **Cancel** and select new users or groups.

c. In the **Basic Permissions** list, select the permission level to deny the user or group. For descriptions of basic permissions, see Basic permissions, page 340.

d. In the **Extended Permissions** area, select the extended permissions to deny the user or group. For descriptions of extended permissions, see Extended permissions, page 340.

e. Do one of these:

- If you did one of these, click **Finish**:
  — Selected just one user or group.
  — Selected multiple users or group but will apply the same restrictions to all remaining ones.
- If you selected multiple users or groups and will apply different restrictions for the next one, click **Next** and return to Step c.

f. To make more changes to restrictions, repeat these substeps.

g. To remove users or groups from having restrictions, select the users or groups and click **Remove**.

5. To edit required groups or required group sets in repositories where Trusted Content Services is enabled, do these in the **Advanced Permissions** area:

a. In either the **Required Groups** area or the **Required Groups Sets** area, do one of these:

- To add users or groups, click **Add**, select the users or groups, and click **OK**.
- To edit users or groups, select the users or groups and click **Edit**.
- To remove users or groups, select the users or groups and click **Remove**. Skip to Step e.

b. In the **Basic Permissions** list, select the permission level to deny the user or group. For descriptions of basic permissions, see Basic permissions, page 340.

c. In the **Extended Permissions** area, select the extended permissions to deny the user or group. For descriptions of extended permissions, see Extended permissions, page 340.

d. Do one of these:

- If you did one of these, click **Finish**:
  — Selected just one user or group.
  — Selected multiple users or group but will apply the same level to all remaining ones.

   - If you selected multiple users or groups and will apply a different level to the next one, click **Next** and return to Step b.

   e. To make more changes to required groups or required group sets, repeat these substeps.

6. When you are done editing permissions, do one of these:
   - To save your changes, click **OK**.
   - To go to another tab, click the tab.

Chapter 31

Users, Groups, and Roles

This chapter includes:

- Users, page 345
- Groups, page 353
- Roles, page 357

Users

This section describes these:

- Locate a user, page 345
- Create or edit a user, page 346
- User properties, page 346
- Import users from information contained in an input file, page 349
- Make a user active or inactive, page 351
- Change the home repository of a user, page 351
- View the groups to which a user belongs, page 352
- Reassign one user's items to another user, page 352
- Delete a user, page 352
- View user management logs, page 353

Locate a user

To locate a user:

1. Navigate to **Administration / User Management / Users**.
2. Do one of these:

- Click **Show All Users**.
- In one or more search fields, type information about the user, and then click **Search**.

A list of users appears.

Tip: To display the search fields again, click **More Options**.

3. Locate the user in the list using standard navigation. For instructions, see Navigate a repository, page 152

Create or edit a user

You must have adequate privileges to create or edit users.

- If the server authenticates users against the operating system, each user must have an account on the server host.
- If you create users who will be managed by an LDAP server, the user_name and user_login_name properties of the dm_user object must have unique, non-null values, and the user_address property of the dm_user object must have a non-null value.

To create or edit a user:

1. Navigate to **Administration / User Management / Users**.
2. Do one of these:
   - To create a new user, select **File > New > User**.
   - To edit an existing user, locate and select the user, and then select **View > Properties > Info**. For instructions on locating a user, see Locate a user, page 345.
3. Enter values to define the new user. For an explanation of user properties, see User properties, page 346.
4. Click **OK**.

User properties

See Table 37, page 347 for descriptions of user properties that might require further explanation, beyond their field names.

Table 37. User properties

Field	Description
State	Determines whether the user can connect to the repository. An active user can connect to the repository. An inactive user cannot.
Name	The user's name as it appears on the user's home cabinet and on items the user creates or modifies.
User Login Name	The name with which the user logs into the repository.
User Source	The authentication source. Select **None** if the user is authenticated in a Windows domain or if the user has an account on the Content Server host and is authenticated by the operating system.
E-Mail Address	The address to which notifications are sent for workflow tasks and registered events.
User OS Name	The login name for authenticating the user on an operating system or on an LDAP server.
Windows Domain	The user's Windows domain, to be used if the repository is on a Windows host or on a UNIX host with a domain map for Windows domain authentication.
Home Repository	The repository where the user receives notifications and tasks.
Restrict Folder Access To	Restricts the user's repository access to particular repository locations.
Default Folder	The location for storing items the user creates.
Default Group	The group assigned to items the user creates.
Default Permission Set	The permission set assigned to items the user creates.

Field	Description
Db Name	The user's name in an RDBMS. This is used if the user is a repository owner or registers RDBMS tables.
Privileges	This authorizes the user to perform certain activities. When setting this, if you grant superuser privileges to a user after installing or upgrading a repository or after manually running the toolset.ebs script, add that user manually to the group called admingroup. If you *revoke* a user's superuser privileges, remove the user from the admingroup.
Alias Set	The user's default alias set.
Workflow Disabled	Indicates that the user is not available to receive workflow tasks.
Propagate changes to members	If creating a global user, this propagates your changes to members of the repository federation. A global user is a user who is found in all members of a repository federation and whose property values are the same in all of the repositories. Global users are managed through the governing repository. Global users can also have local properties, which you can modify in a local repository. For more information on global users, see the *Documentum Administrator User Guide*.
Turn off authentication failure checking	Allows the user more login attempts than the limit set in the repository config object.

Import users from information contained in an input file

To import a user from information contained in an input file:

1. Determine what type of authentication the repository uses. If the server authenticates users against the operating system, each user must have an account on the server host before you create the users.
2. Create the input file. See Input file for new users, page 349.
3. In DCM, do these:
   a. Navigate to **Administration / User Management / Users**.
   b. Click **File > Import User**.
   c. In the **Input File Path** field, click **Browse** and select the location of the input file for creating the new users.
   d. As appropriate, enter additional values that apply to all the users you are importing. Values specified in the input file override values specified on this page. For an explanation of user properties, see User properties, page 346.
   e. Click **Finish**.

Input file for new users

You import users from information contained in an input file.

Before you create the users, determine what type of authentication the repository uses. If the server authenticates users against the operating system, each user must have an account on the server host.

If the server uses an LDAP directory server for user authentication, the users do not need to have operating system accounts.

If you specify the attributes user_group (the user's default group) and acl_name (the user's default permission set), any groups and permission sets must already exist before you import the users.

If you are creating a user who is authenticated using a password stored in the repository, the password cannot be assigned in the input file. You must assign the password manually.

Each user to be imported starts with the header object_type:dm_user. Follow the header with a list of attribute_name:attribute_value pairs. The attributes user_name and user_os_name are required. In addition, the default values in Table 38, page 350 are assigned when the file is imported.

Table 38. Default values for new users

Argument	Default
user_login_name	*username*
privileges	0 (None)
folder	*/username*
group	docu
client_capability	1

Each *attribute_name:attribute_value* pair must be on a new line. For example:

```
object_type:dm_user
user_name:Pat Smith
user_group:accounting
acl_domain:smith
acl_name:Global User Default ACL
object_type:dm_user
user_name:John Brown
```

If the file contains umlauts, accent marks, or other extended characters, store the file as a UTF-8 file, or users whose names contain the extended characters are not imported.

The attributes you can set through the input file are:

```
user_name
user_os_name
user_os_domain
user_login_name
user_login_domain
user_password
user_address
user_db_name
user_group_name
user_privileges (set to integer value)
default_folder
user_db_name
description
acl_domain
acl_name
user_source (set to integer value)
home_docbase
user_state (set to integer value)
client_capability (set to integer value)
globally_managed (set to T or F)
alias_set_id (set to an object ID)
workflow_disabled (set to T or F)
user_xprivileges (set to integer value)
failed_auth_attempt (set to integer value)
```

You can specify as many of the above attributes as you wish, but the attribute_names must match the actual attributes of the type.

The attributes may be included in any order after the first line (object_type:dm_user). The Boolean attributes are specified using T (for true) or F (for false). Use of true, false, 1, or 0 is deprecated.

Any permission sets that you identify by acl_domain and acl_name must exist before you run the file to import the users. Additionally, the ACLs must represent system permission sets. They cannot represent private permission sets.

Any groups that you identify by user_group_name must exist before you run the file to import the users.

Content Server will create the default folder for each user if it does not already exist.

Make a user active or inactive

To make a user active or inactive:

1. Locate and select the user. For instructions, see Locate a user, page 345.
2. Select **View > Properties > Info**.
3. To make a user active, click **Active**.
4. To make a user inactive, click **Inactive**.
5. Click **OK**.

Change the home repository of a user

The home repository is where the user receives Inbox tasks and notifications.

To change the home repository of a user:

1. Locate and select the user. For instructions, see Locate a user, page 345.
2. Click **Tools > Change Home Repository**.
3. Select the new home repository.
4. Select when to run the job that assigns the new home repository.
5. Click **OK**.

View the groups to which a user belongs

To view the groups to which a user belongs:

1. Locate and select the user. For instructions, see Locate a user, page 345.
2. Select **View > Locations**.

Reassign one user's items to another user

This procedure is useful if you are deleting a user from the repository and want to reassign the user's files and objects to another user.

To reassign one user's items to another user:

1. Locate and select the user. For instructions on locating a user, see Locate a user, page 345.
2. Click **Tools > Reassign User**.
3. Click **Select User** and select the new user to which to reassign items. For detailed steps see Locate an item in a selection dialog box, page 155.
4. Complete the remaining fields:
   - **Run the Re-name job**

     Select whether the items are reassigned immediately.
   - **Checked Out Objects**

     Select whether to unlock items that the previous user had locked.
5. Click **OK**.

Delete a user

EMC Documentum strongly recommends making users inactive rather than deleting them from the repository.

It is important to know that if you delete a user, the content server does not delete the references to that user in other repository objects, such as groups and permission sets. This means that if you delete a user, you must do one of these:

- Reassign the user's objects to another user. See Reassign one user's items to another user, page 352.

- Create a user with the same name. If you create a user with the same name, the new user inherits the group membership and object permissions belonging to the deleted user.

You cannot delete the repository owner, installation owner, or yourself.

View user management logs

To view user logs:

1. Navigate to **Administration / User Management / Users**.
2. Select one of these:
   - **View > Reassign Logs**
   - **View > Change Home Repository Logs**

Groups

A group is a collection of users, other groups, and roles. A group can own sysobjects and permission sets. By default, a group is owned by the user who creates the group.

To locate groups, navigate to **Administration / User Management / Groups**.

To open a group, double-click the group.

This section includes these:

- Create or edit a group, page 353
- Group properties, page 354
- Add or remove members in a group, page 356
- Reassign one group's items to another group, page 357
- View the groups to which a group belongs, page 357
- Delete a group, page 357

Create or edit a group

To create or modify a group, you must have adequate privileges. See Table 39, page 354.

Table 39. Privileges for groups

Privilege	Description
Create Group	Can create a group with yourself as the owner. Can modify groups to which you belong.
System Administrator	Can modify any group.
Superuser	Can create a group and assign a different user as the owner.

To create or edit a group:

1. Navigate to **Administration / User Management / Groups**.
2. Do one of these:
   - To create a new group, select **File > New > Group**.
   - To edit an existing group, locate and select the group, and then select **View > Properties > Info**.

   For instructions on locating a group, see Groups, page 353.
3. Enter the appropriate information to define the group. For an explanation of group properties, see Group properties, page 354.
4. Click **OK**.

Group properties

See Table 40, page 354 for descriptions of fields that might require further explanation, beyond their field names.

Table 40. Group properties

Field	Description
Name	The name of the group. The name must consist of characters that are compatible with Content Server's server OS code page.
Group Native Room	Available in repositories with Collaborative Services is enabled. If you select a room, the group is considered a private group in the room.

Field	Description
Class	Distinguishes between groups and roles. Select **Group**. The server does not enforce the value of this property and does not set the property to any value other than group.
E-Mail Address	The email address for the group. This is typically the email address of the group's owner. If no value is entered in this field, the group email address defaults to the group name.
Owner	The owner of the group. The user you select has the Create Group privilege. If you are a superuser, you can select the owner. Otherwise, you can set this to a group of which you are a member.
Administrator	The administrator for the group. The administrator can modify the group. If this is null, only a superuser and the group owner can modify the group.
Alias Set	The alias set for the group.
Global Group	If you are connected to the governing repository of a federation, this makes the group a global group.
Private Group	Makes the group a private group. Otherwise, the group is public. By default, groups created by users with system administrator or superuser privileges are public, and groups created by users with a lower privileges are private.
Dynamic Group	Makes the group a dynamic group. A dynamic group is a group comprised of potential members, any of whom can be made actual members at runtime. The default membership setting for a dynamic group is **Treat users as non-members**. This means that at runtime, the potential members do not automatically become actual members.

Field	Description
	At runtime, however, the application from which a user accesses the repository can request that the user be made an actual member. You can use dynamic groups to model role-based security. For example, suppose you define a dynamic group called EngrMgrs. Its default membership behavior is to assume that users are not members of the group. The group is granted the privileges to change ownership and change permissions. When a user in the group accesses the repository from a secure application, the application can issue the session call to add the user to the group. If the user accesses the repository from outside your firewall or from an unapproved application, no session call is issued and Content Server does not treat the user as a member of the group. The user cannot exercise the change ownership or change permissions permits through the group.

Add or remove members in a group

To add or remove members:

1. Navigate to **Administration / User Management / Groups** and double-click the group.
2. To add members:
    a. Select **File > Add Members**
    b. Select the members. For detailed steps see Locate an item in a selection dialog box, page 155.
    c. Click **OK**.
3. To remove a member:
    a. Select the member.

b. Click **File > Remove Members**.

Reassign one group's items to another group

To reassign one group's items to another group:

1. Navigate to **Administration / User Management / Groups** and select the group.
2. Select **Tools > Reassign**.
3. Click **Select** and select the new group to which to assign items. For detailed steps see Locate an item in a selection dialog box, page 155.
4. Complete the remaining fields:
   - **Run the Re-name job**

     Select whether the items are reassigned immediately.
   - **Checked Out Objects**

     Select whether to unlock items that the previous user had locked.
5. Click **OK**.

View the groups to which a group belongs

To view the groups to which a group belongs:

1. Navigate to **Administration / User Management / Groups** and select the group.
2. Select **View > Locations**.

Delete a group

EMC Documentum recommends that you do not delete groups. Instead, remove all members of the group and leave the group in the repository.

Roles

A role is a group that contains the users and groups assigned particular duties within a client application domain.

To locate roles, navigate to **Administration / User Management / Roles**.

Note: A role that has been created as a domain is listed in the groups list, not the roles list.

To open role, double-click the role.

This section includes these:

- Create or edit a role, page 358
- Role properties, page 358
- Add or remove members in a role, page 359
- Reassign one role's items to another role, page 360
- View the groups to which a role belongs, page 360
- Delete a role, page 361

Create or edit a role

Note: If you create a role as a domain, it is listed on the groups list, not the roles list.

To create or edit a role:

1. Navigate to **Administration / User Management / Roles**.
2. Do one of these:
   - To create a new role, select **File > New > Role**.
   - To edit an existing role, locate and select the role, and then select **View > Properties > Info**.
3. Enter values to define the role. For an explanation of properties, see Role properties, page 358.
4. Click **OK**.

Role properties

See Table 41, page 359 for descriptions of fields that might require further explanation, beyond their field names.

Table 41. Role properties

Field	Description
Class	Select **Role**. This lets your applications distinguish between groups and roles. The server does not enforce the value of this property and does not set the property to any value other than group.
E-Mail Address	The email address of the role's owner. If no value is entered, the email address defaults to the role name.
Owner	The role owner can modify the role.
Administrator	A user or group, in addition to a superuser or the role owner, who can modify the role. If this is null, only a superuser and the role owner can modify the role.
Private Group	Creates the role as a private role. Otherwise the role is a public role. By default, roles created by users with system administrator or superuser privileges are public, and roles created by users with a lower user privilege level are private.
Create role as domain	If you create a role as a domain, it is listed on the groups list, not the roles list.
Dynamic Group	Creates the role as a dynamic group. For more information on dynamic groups, see Group properties, page 354.

Add or remove members in a role

To add or remove members:

1. Navigate to **Administration / User Management / Roles** and double-click the role.
2. To add members:
   a. Select **File > Add Members**
   b. Select the members. For detailed steps see Locate an item in a selection dialog box, page 155.
   c. Click **OK**.

3. To remove a member:
   a. Select the member.
   b. Click **File > Remove Members**.

Reassign one role's items to another role

To reassign one role's items to another role:

1. Navigate to **Administration / User Management / Roles** and select the role.
2. Click **Tools > Reassign**.
3. Click **Select** and select the new role to which to assign items. For detailed steps see Locate an item in a selection dialog box, page 155.
4. Complete the remaining fields:
   - **Run the Re-name job**

     Select whether the items are reassigned immediately.
   - **Checked Out Objects**

     Select whether to unlock items that the previous user had locked.
5. Click **OK**.

View the groups to which a role belongs

To view the groups to which a role belongs:

1. Navigate to **Administration / User Management / Roles** and select the role.
2. Select **View > Locations**.

Delete a role

EMC Documentum recommends that you do not delete roles. Instead, remove all members of the role and leave the role in the repository.

Appendix A

Keyboard Shortcuts for Microsoft Windows and Mac Operating Systems

You can use keyboard shortcuts to select menus and buttons using your keyboard instead of your mouse. Table 42, page 363 describes the default keyboard shortcuts. Customized installations might vary.

Table 42. Keyboard shortcuts

Action	Microsoft Windows shortcut	Mac OS shortcut
Create a new document	Shift-N	Shift-N
Check out	O	O
Edit	E	E
Check in	I	I
View	V	V
Open in read-only mode	Enter	Enter
View properties	P	P
Import	Shift-I	Shift-I
Export	Shift-E	Shift-E
Save as	A	A
Search	Shift-S	Shift-S
Subscribe	U	U
Add to clipboard	Shift-C	Shift-A
Copy here	Shift-V	Shift-C
Move here	Shift-M	Shift-M
Link here	Shift-L	Shift-L

Action	Microsoft Windows shortcut	Mac OS shortcut
Delete	Delete	Delete
Start a quickflow	Q	Q
Apply a lifecycle to a document	L	L
Promote a document to its next lifecycle state	R	R
Demote a document to its previous lifecycle state	D	D
Declare a record	Shift-R	Shift-R
Create a discussion	Shift-U	Shift-U
Covert a simple document into a virtual document	Shift-T	Shift-V
Email	M	M
Select all the items on the page	Ctrl-A	Cmd-A
Select the next item	Right arrow	Right arrow
Select the previous item	Left arrow	Left arrow
Select the item above	Up arrow	Up arrow
Select the item below	Down arrow	Down arrow
Go to the next field or button	Tab	Tab
Go to the previous field or button	Shift-Tab	Shift-Tab
Help	Shift-H	Shift-H
Log out	Shift-O	Shift-O

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