Falcon/DMS

MicroStation (MDL)

advanced enterprise
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The Document Manager—MicroStation (MDL)
for **Falcon/DMS** version 5.5.1
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Falcon/DMS

The Document Manager (MDL)

Contents at a Glance

Chapter 1 – Introduction: Chapter 1 introduces the MicroStation (MDL) version of the Document Manager.

Chapter 2 – Document Retrieval: Chapter 2 provides a step-by-step explanation of the procedures used to retrieve design files for modification or for viewing, and includes an explanation of how reference files are attached and managed. This section includes a detailed discussion of how Falcon/DMS manages requested files and explains the difference between the open and checkout operations. The procedures used to refresh documents and manage reference files are also explained.

Chapter 3 – The 'New Document' Command: Chapter 3 explains how to use Falcon/DMS to create a design files and their database records. The MDL version of the Document Manager permits the user to create a MicroStation design file (and its database record) as well as to add files to the Falcon/DMS database without leaving MicroStation. Also discussed in this chapter: Intelligent Data Link (IDL), the bi-directional link between a design file's database record and selected text nodes, usually located in a drawing's title block, Revision Control, and the Add Local command.

Chapter 4 – Document Manipulation: Chapter 4 covers the Move, Copy, Copy/Replace, Rename, and Delete commands.

Chapter 5 – Database Operations: Chapter 5 discusses the database operations available in the MDL version of the Document Manager. Special attention is given to the database search tools and how the document manipulation commands presented in Chapter 4 can be used in combination with the search command. Also discussed is Generate Document Lis, which allows users to designate the current file by choosing from a list that displays the Filename, its Document #, and its Description, and Document Notes, a feature that provides a easy and powerful way for users to itemize activity for any document.

Chapter 6 – Third-Party Applications: As the availability of third-party applications for MicroStation has grown, so has the ability of Falcon/DMS to either provide specific interfaces for an application or to tailor the capabilities of standard commands to accommodate its particular requirements. In Chapter 6 we discuss the IGrds and CAiCE interfaces.

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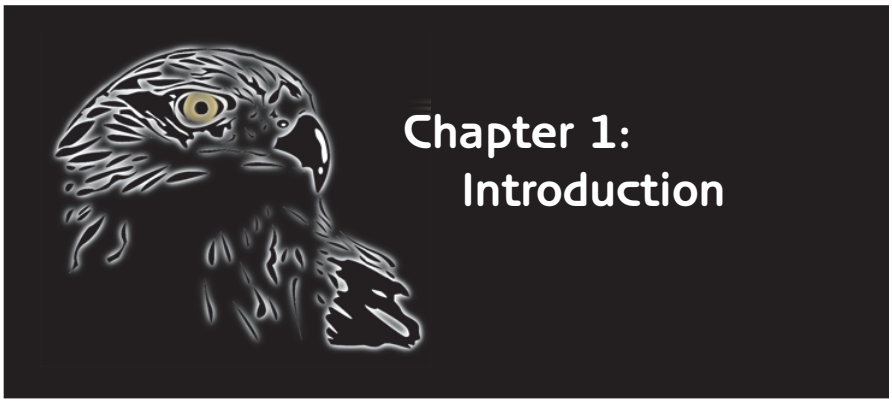
The Document Manager (MDL)



The Document Manager is the user interface for the Falcon/DMS Engineering Document Management System.

Two versions of the Falcon/DMS Document Manager are available for MicroStation. The Windows version is application-independent and capable of fully managing documents for any Windows-based program (see the 'Document Manager: Windows User Guide' for more information). The MicroStation (MDL) version, the subject of this guide, is seamlessly integrated with MicroStation's graphical user interface and has most of the capabilities of its Windows counterpart.

There are three primary differences between the MDL and Windows versions of the Document Manager.

First, while you can manage any type of document with either, the only document type you can *open* with the MDL version of the Document Manager is a MicroStation design file.

Second, Intelligent Data Link (IDL), the bi-directional database linkage between the Falcon/DMS database and the MicroStation design file, can be managed only from MDL.

And third, the Location and Archive commands are available only on the Windows versions of the Document Manager.

The MDL Document Manager does not require its own workspace and will not interfere with the operation of other applications running within MicroStation (see the administrator's 'Operations Guide' for configuration hints). Indeed, with Falcon/DMS you can easily define and manage associations between design files and data files to make working with third-party applications more foolproof.

In a Windows environment, the Windows and the MDL versions of the Document Manager can be used interchangeably. You can start MicroStation from either the Windows Document Manager or from a MicroStation icon, and then open or checkout additional design files from whichever interface you choose. When you select and open a design file from the Windows Document Manager, you have the additional benefit of being able to select a MicroStation workspace or engineering application, provided they have been defined by the Falcon/DMS administrator.

Basic Concepts

Opening a single document or checking out one or more documents are the two most basic Falcon/DMS file retrieval operations.

When you open or check out a document through Falcon/DMS, a copy of that document (the 'working' document) is placed in a predefined location on your local hard disk where it can be modified. The server version of this file (the 'record' document) is set to a 'view only' access mode and remains so until the working document is checked in. When a working document is checked in it is removed from your workstation and placed back on the server (becoming the new 'record' document), and is once again available to authorized users for modification.

When you select the Open or Checkout commands, Falcon/DMS checks several database attributes to determine whether you can access the document. The attributes most likely to affect your ability to manipulate a document are *Availability* and *Status*.

A document that is not checked out shows an *Availability* of 'On Server'; this indicates that the document is available for modification (provided you are authorized to do so). A document that is checked out to another user shows an *Availability* of 'On Workstation' (or 'Reserved by User' [see **Note**, below). Falcon/DMS identifies the workstation on which the document is located, the user to whom the document is checked out, and the date on which it was checked out.

Status refers to Document Access Status. This is a database attribute, typically defined by an administrator, that assigns access modes of modify, view only or no access to a document. When a document's Status has a 'modify' access mode you may check out and modify the document. When the mode is 'view only', you are given the option of proceeding with a read only version of the document or terminating the request. When the mode is 'no access', Falcon/DMS provides a message defined by the administrator.

Each document's *Availability* and *Status* are listed on the General Info tab.

There is relatively little difference between the Checkout and Open commands.

When you ***check out*** one or more documents, you reserve those documents for your use, usually to be opened and modified at a later time.

When you ***open*** a document, Falcon/DMS checks out the document, launches the associated application if necessary, and opens it in that application as part of a single transaction. Access by other users to any checked out document is limited to 'view only', meaning that they cannot modify the 'On Workstation' document until it is checked in.

The Open command is available only when you select a single document. The Checkout command can be used to checkout one or more documents in a single transaction.

Note: A file format, or document type, can be configured so that checked out documents are accessed on the server instead of copied to the requesting workstation's hard disk. Under this configuration, documents that are checked out will show an *Availability* of 'Reserved by user'. (Apart from an increase in network traffic, an important disadvantage to accessing files directly on the server is that clients are unable to get to their documents if the network fails.)

TERMS

Availability: A database attribute that identifies whether a document is available for modification. A document's Availability condition appears on the General Info tab.

When you select a file and its Availability is shown as 'On server', it is available to authorized users.

When the file is shown as 'On Workstation', it is checked out for modification; Falcon/DMS identifies the workstation on which the document is located, the user to whom the document is checked out, and the checkout date.

Status: Document Status, or Status, is an attribute that is typically defined and assigned to documents by an administrator and usually cannot be changed by a user. Status assigns an 'access mode' to a document.

The three access modes are: modify (which allows for full access, provided 'write' access is granted by the operating system), view_only, and no_access.

NOTE

Typically, Falcon/DMS is configured to copy checked out documents to the workstation. There are several benefits to placing these 'working' versions of documents on the local hard disk:

First, network traffic is minimized.

Second, an application's performance is optimized.

Third (and perhaps most important), users can continue to work on local documents when the server or the network fail.

Graphical User Interface

The components of the MicroStation [MDL] Document Manager are:

A. Control Bar: Provides two control bar functions: move and close. Additionally, when the Environments feature is enabled the control bar displays the current environment.

B. Menu Bar: Provides access to pull-down command menus.

C. Top Button Panel: Provides quick access to the most common document manipulation operations contained within the File pull-down menu.

D. File Selection Region: Server File Selection is a view of server-based record documents. Local File Selection is a view of local working documents. From this area you navigate through the directory structure and select the documents you wish to work with.

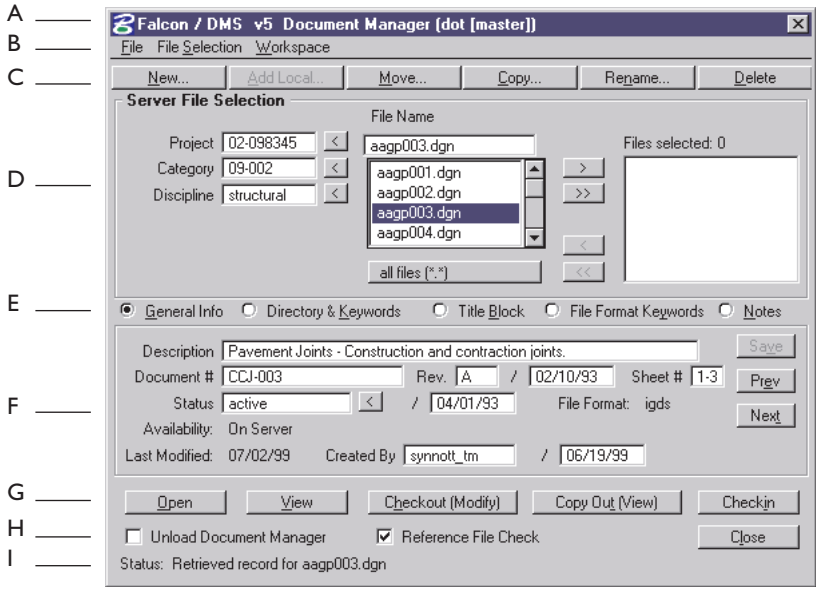
E. Database Tabs radio buttons: These radio buttons allow you to change the active database tab.

F. Database Tabs: These tabs allow you to view different categories of database information. The five database info tabs are General Information, Directories & Keywords, Title Block, File Format Keywords, and Document Notes.

G. Bottom Button Panel: Provides access to the basic management operations: Open, View, Checkout, Copy Out, and Check In.

H. Miscellaneous Controls: Use the first two controls to set operating defaults (automatic close and reference file checking) and the Close button to manually exit the Document Manager.

I. Status Bar: Provides information and statistics about the current operation.



✉ NOTE:
The Add Local command, several File Manipulation commands, and the File Retrieval commands also appear on button bars located at the top and bottom of the Document Manager.

The Document Manager Interface

The MicroStation Menu Bar—Falcon/DMS

The Falcon/DMS pull-down menu located on the MicroStation menu bar provides access to the following operations:

GROUP	COMMAND	DESCRIPTION
MicroStation: Menu Bar	Document Manager	Opens the MDL version of the Document Manager.
	File Refresh >	The Refresh commands facilitate the backup or retrieval of the most current version of design files. A detailed explanation of these commands is provided in Chapter 2.
	Checked Out to [User]	Opens a form listing all the files checked out to the current user. From this dialog box the user can open or checkin any files that appear in the list.
	Edit Reference File Logicals	Permits users to modify the logical and/or the filename of a reference file while maintaining the reference file's attributes (clip boundaries, masks, scale, rotation, etc.). This operation is valid only on those reference files attached with the Falcon/DMS File > Attach Reference File command and then, only for databases with the primary index key set to Dirlevel1;Filename or greater.
	About Falcon/DMS	Opens the About Falcon/DMS form.
	IGRDS	[On/Off] Enables the user to suspend the specialized Falcon/DMS operations designed to address IGRDS file management requirements. This option is available only when Falcon/DMS is configured specifically for IGRDS.
	Exit	Exits MicroStation.

The Document Manager Menu Bar—File Menu

The File pull-down menu located on the Document Manager menu bar provides access to the following operations:

GROUP	COMMAND	DESCRIPTION
DocMan: File Menu	Attach Reference	Initiates the attach reference file procedure. Because this command defines a reference path logical to the parent design file using this command is particularly important for databases with the primary index key set to Dirlevel1;Filename or greater.
	File Refresh >	Reference; Local; Server. The Refresh commands facilitate the backup or retrieval of the most current version of design files. A detailed explanation of these commands is provided in Chapter 2.
	New...	Used to create a new MicroStation design file and its database record.
	New Revision...	Used to create a new revision of the current design file.
	Add Server Files... and Add Local Files...	Used to add server-based and local files, respectively, to the database. [The Add Server File command is availbale only when the Server View Mode is set to Directory.]
	File Retrieval Commands	Falcon/DMS provides two categories of retrieval commands: modify and view. The modify commands are Open, Checkout, and Checkin. The view commands are Open and Copy Out.
	File Manipulation Commands	The file manipulation commands are New, New Revision, Move, Copy, Copy/Replace, Delete, and Rename.
	Sets >	Set commands: New, Add to..., and View/Remove from...
	File Association >	File Association commands: Add to... and View/Remove from...
	Close	Exits the Falcon/DMS Document Manager.

File Selection Menu

The File Selection pull-down menu located on the Document Manager menu bar provides access to the following operations:

GROUP	COMMAND	DESCRIPTION
DocMan: File Selection	Server File Selection	Points Falcon/DMS to the server-based project directories listed in the Master 'Project' Table.
	Local File Selection	Points Falcon/DMS to the local working directories defined for each file format.
	Local Reference File Selection	Points Falcon/DMS to the local reference file directory, usually for the purpose of deleting reference files that are no longer required locally.
	Checked Out to [User] >	Opens a form listing all the files checked out to the current user. From this dialog box the user can open or checkin any files that appear in the list. Also available from the Falcon/DMS pulldown menu on the MicroStation menu bar.
	Search...	Opens the standard search form.
	Generate Document List	Generates a database view of the current directory showing filename, document number, and description.
	Custom Search	Opens the SQL search form.

Workspace Menu: Environments & User Preferences

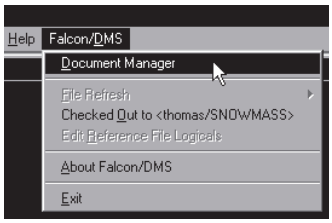
GROUP	COMMAND	DESCRIPTION
DocMan: Workspace	**Environments >**	Lists the environments authorized for the current user.
	User Pref >	
	Directory Selection >	Text List Boxes: This option uses list boxes from which projects and their subdirectories are chosen. Click the **<** button to display a list box. Directory List Box: The option displays project subdirectories in the standard Windows mode. Click the **<** button to select a project and drill down to the required subdirectory.
	Directory List Button	[On/Off] When enabled, the current directories file list won't display until the user clicks the **<List** button.
	Database Info Tabs	[On/Off] Controls the display of the database information tabs: General Info, Directories and Keywords, Title Block, File Format Keywords (when defined), and Document Notes. Users with sufficient privileges can edit a design file's database record from these tabs.
	Master Project Descriptions	[On/Off] Controls the display of project descriptions (project descriptions are defined by the Falcon/DMS Administrator).
	Subdirectory Descriptions	[On/Off] Controls the display of subdirectory descriptions (subdirectory descriptions are defined by the Falcon/DMS Administrator)
	Post Reference Dialog	[On/Off] Controls the display, or 'posting', of the Reference File List dialog box as reference files are copied to the local workstation and provides information about their status.
	Auto Delete Local Reference Files	[On/Off] When on, Falcon/DMS automatically deletes local reference files when a design file is checked in; otherwise, the user deletes local reference files at his discretion.
	Server View Move >	[Database/Directory] This preference allows users to view the server-based couments as records in the database or as items in a directory listing of the actual server directory.

Starting Falcon/DMS from the MicroStation Icon:

When you start MicroStation from the MicroStation icon in the Falcon/DMS folder a 'banner' or 'splash' file opens. The purpose of this file is to place you in a controlled environment from which you use the MDL version of the Document Manager to checkout and check in and otherwise manage files.

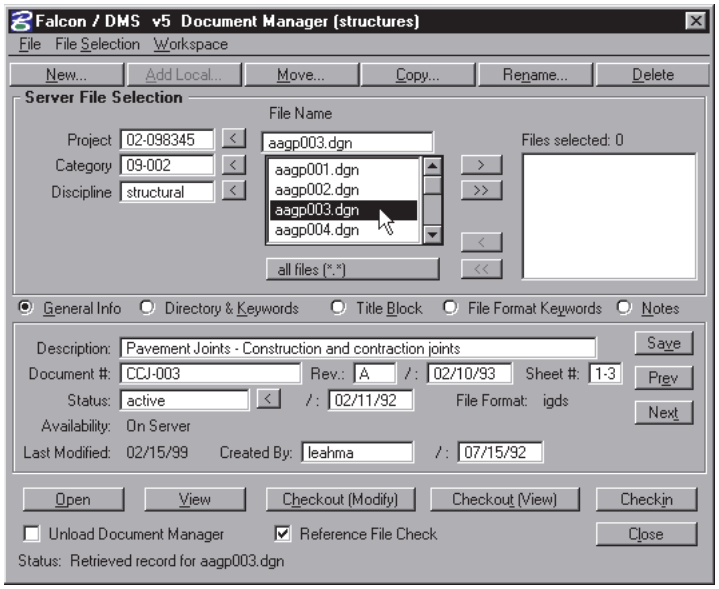
Use the following procedure to open or checkout server-based design files.

1. Select Falcon/DMS > MicroStation from the Start menu or double-click the MicroStation/Falcon icon in the Falcon/DMS program group. (For UNIX, select the designated icon from the GUI, or enter the appropriate command in a terminal window.)



2. Once in MicroStation, select Falcon/DMS > Document Manager from the MicroStation menu bar. The Document Manager opens
3. Use the Document Manager to manipulate files:
   - ❏ Navigate to a server directory in the Select Server File region (see page 7).
   - ❏ Select a document from the File Name list window (see page 8).
   - ❏ Select a command.

At this point Falcon/DMS checks several database items to determine whether you can access the document. The attributes effecting your ability to manipulation a document are Availability and Status. When a design file is not checked out the database lists its Availability as 'On Server'. If the design file is checked out to another authorized user its Availability is shown as 'On Workstation' or 'Reserved by User'. Status refers to Document Status. This is a database attribute typically defined by an administrator and assigns access modes of modify, view only or no access to a document. When a document's Status has a 'modify' access mode you may check out and modify the document provided the document is available.



☞ ATTENTION

To determine whether a file is checked out, refer to Availability on the Document Manager's General Info tab. When you select a file and its Availability is shown as 'On server' it is available to authorized users. When the file is shown as 'On workstation', it is checked out. When a document is 'On workstation' Falcon/DMS identifies the workstation on which the working document is located, the user to whom the document is checked out, and the checkout date.

TERMS

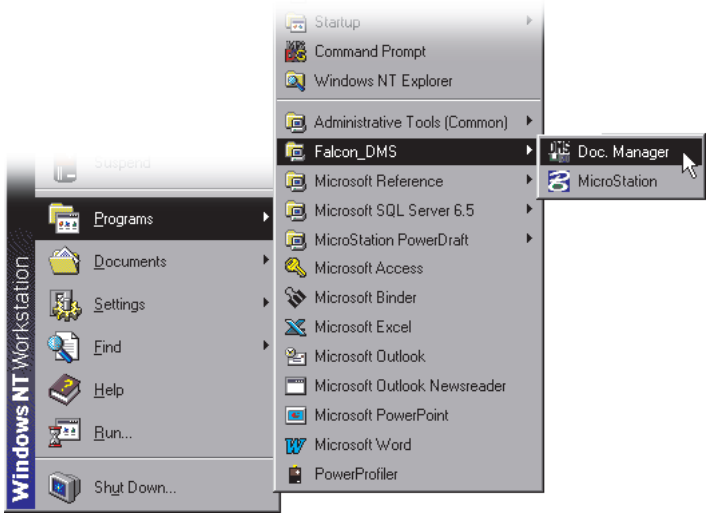
Status: Document Status, or Status, is an attribute that is typically defined and assigned to documents by an administrator and cannot be changed by a user. A Status assigns an 'access mode' to a document.

The three access modes are: modify (which allows for full access, provided 'write' access is granted by the operating system), view_only, and no_access.

Starting MicroStation from the Windows Document Manager

NOTE: Additional applications or workspaces may be defined for MicroStation and associated to MicroStation file format (igds). These additional associations are recognized by the Windows version of the Falcon/DMS Document Manager. When you select and open a design file from the Windows Document Manager, you may also select a MicroStation workspace or engineering application.

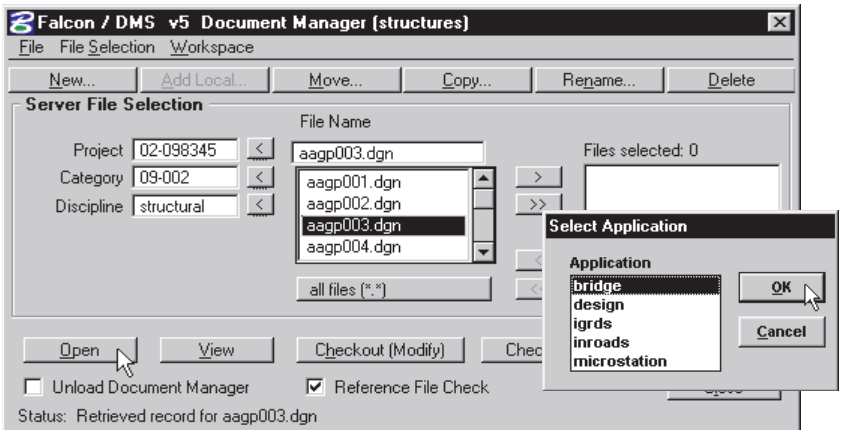
1. From the Windows Start Button select Programs > Falcon/DMS >Doc. Manager.



2. On the Document Manager:

   - ❏ Navigate to a server directory in the Select Server File region.
   - ❏ Select a design file from the File Name list window.
   - ❏ Check the document's Availability in the General Info region.
   - ❏ Select the File > Open command or press Open.

3. If the Falcon/DMS administrator has defined workspaces or additional application properties for the MicroStation file format, the Select Application list box opens. Double-click on the MicroStation configuration you wish to use.



✉ NOTE
In a Windows environment you may use the MDL and the Windows versions of the Document Manager interchangeably.

☞ ATTENTION

Falcon/DMS provides several ways to manage the reference files it copies out to your local workstation.

The Document Manager provides a user preference that, when enabled, automatically deletes local reference files when the parent design file is checked in.

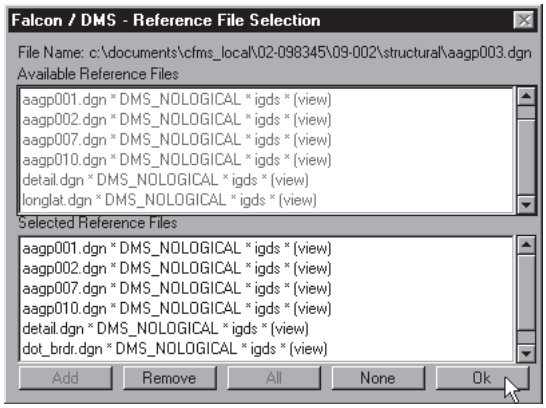
The Document Manager also provides a option that allows you to view the contents of the local reference file directory and to delete as needed.

If you choose to not use the Auto Delete feature you will make more efficient use of Falcon/DMS's reference file capabilities. Each time Falcon/DMS opens a design file to which reference files are attached, it checks to insure that you have the most current version of the reference files. Only when the server-version of the reference file is more current than the local version will Falcon/DMS update the workstation. This feature results in significantly reduced network traffic.

Because Falcon/DMS verifies reference files each time it opens a design file, it is recommended that you not delete local reference files until after a design file is completed.

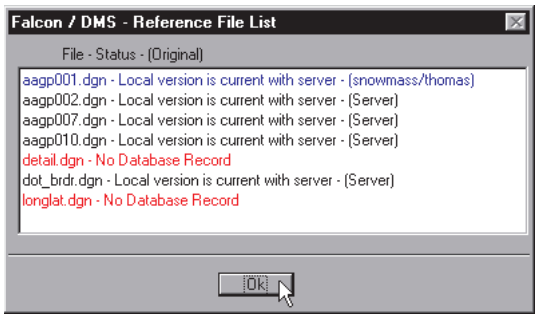
Falcon/DMS and Reference Files

When Falcon/DMS opens a MicroStation design file it also determines which reference files, if any, are attached to the requested document. Falcon/DMS then 'copies out' the reference files to your local workstation. Do not confuse 'copy out' with 'checkout; to 'copy out' a file does not effect a document's Availability. (Recall that checking out a file changes its Availability from 'On Server' to 'On Workstation' or to 'Reserved by User'.)



You may choose which reference files Falcon/DMS is to copy to the client workstation.

Before any reference file is copied to your workstation Falcon/DMS performs a number of database checks. The first is to insure that Falcon/DMS provides the most current version of the reference file available on the server. The second is to alert you to when a reference file may not be the most current version of the document; this usually occurs when another user has checked out a reference file as their active document. The reference file options are detailed in Chapter 2, Design File Retrieval.

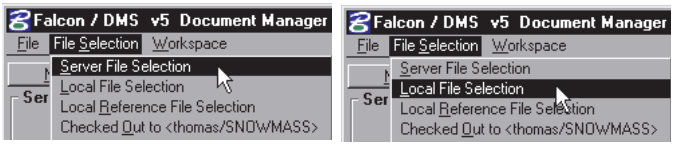


Because these reference files are 'copied out' rather than 'checked out' you may delete them from your local workstation when they are no longer needed.

File Selection Modes

Falcon/DMS restricts users to specific 'project' directories on the network file servers and to 'working' directories on the local workstation. The Document Manager's File Selection option allows you to choose between viewing the contents of the server-based 'project' directories and the local working directories.

Recall that when Falcon/DMS opens or checks out a design file, it places a copy of that file (the 'working document') in the 'working directory' on the local workstation. The original (the 'record document') stays on the server, where it remains as a 'view only' file until the document is checked back into the database. A user may select his own checked out document (where *Availability* equals 'On Workstation') from its server-based home directory or from the local working directory to which it was checked out. In either case, Falcon/DMS ***always*** opens the local version of the file.



Server File Selection

When Falcon/DMS points to a server it restricts access to those 'project' directories that are listed in the Master 'Project' Table.

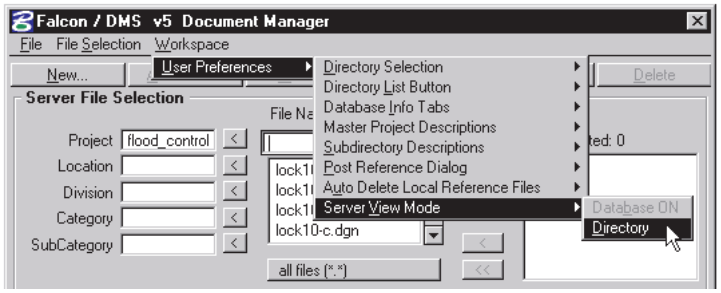
Local File Selection

When Falcon/DMS points to local 'working' directories, it sees a replication of the server directories that are built as documents are checked out. When documents are checked in, Falcon/DMS automatically deletes empty local directories.

The Server View Mode User Preference

The Server View Mode user preference allows you to view the server-based documents as records in the database or as items in a directory listing of the actual server directory.

- The Database mode displays only those items that have database records.
- The Directory mode displays all files located in the current directory, including those that are not in the database.
- When in Database mode, only those directories that contain database records are visible. Once you add a document to an empty directory, you can access that directory in either mode.
  - To create a document in an empty directory, first set the Server View Mode to Directory.
  - To move or copy a document to an empty directory, first set the Server View Mode to Directory.
  - To use the Add Server File command, first set the Server View Mode to Directory.
- The Database view allows you to more easily view database records for non-electronic records and sets; previously these items could be seen only from a database search result.
- The Database view is recommended when poor network performance is an issue.



✉ NOTE:
There are several benefits to placing a 'working' version of a document on the local workstation: First, to minimize network traffic, second, to optimize an application's performance, and third (and perhaps most important), to allow users to continue to work when the network goes down.

✔ TIP
In addition to selecting a project from a text list box, you may key in a project name in the 'Project' field.

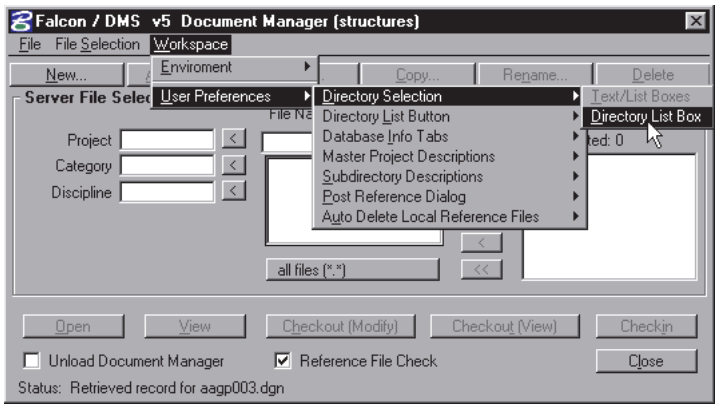
✔ TIP
You may select any list box item with a double-click.

✔ TIP
To move back through a directory structure when the directory selection preference is set to Text List box, simply click the button associated with the higher level directory and select an entry or, double-click the current directory and press the delete key.

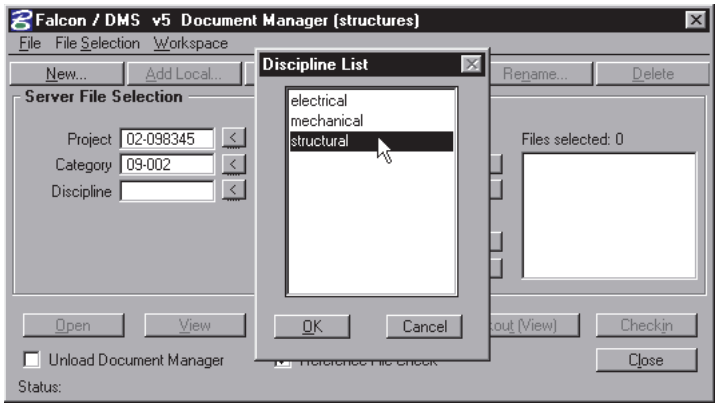
Navigating Directories & Selecting Files

The Falcon/DMS Document Manager uses standard Windows conventions to navigate a directory structure and select files.

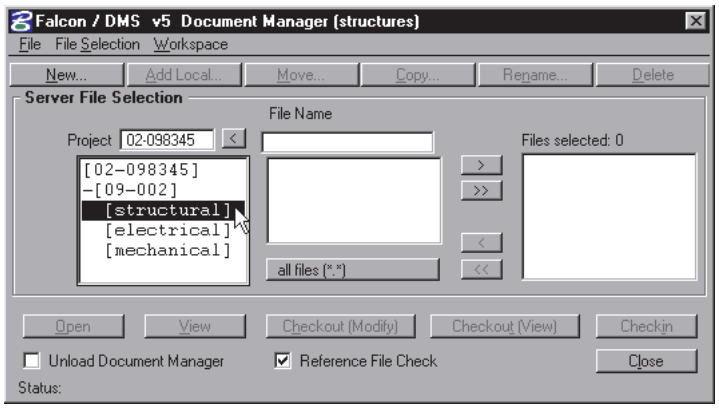
You may view the current directory structure from Text List boxes or a Directory List box. Use the Directory Selection user preference to set the preferred control.



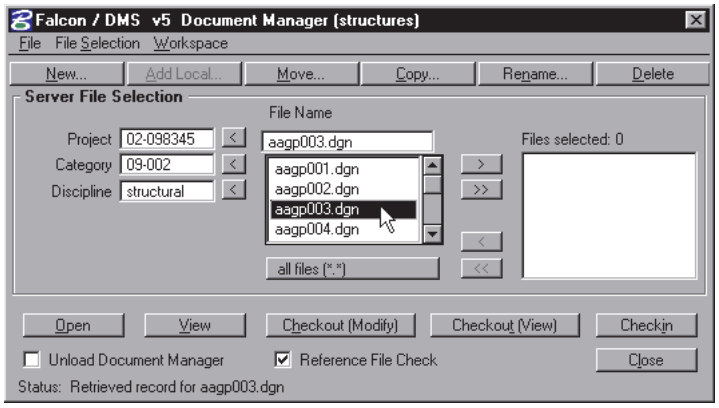
When Text/List Boxes is enabled, the Document Manager displays the available directories in a list boxes opened by clicking on the associated [**<**] buttons.



When Directory List Box is enabled, the Document Manager displays the available 'Project' directories in a list box while the 'Project' subdirectories are shown in the standard Windows mode.

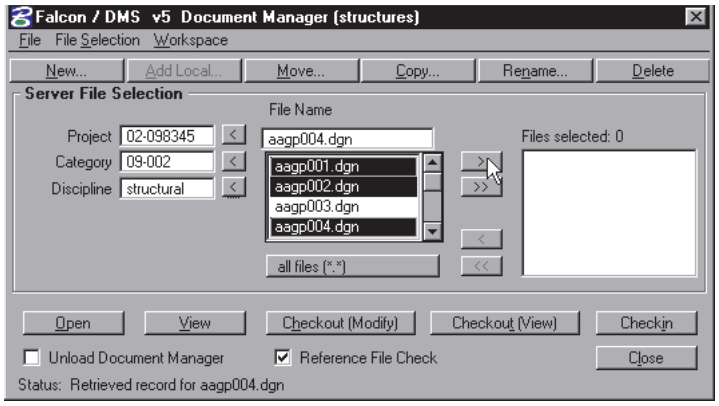


If you wish to perform any operation on a single document, the easiest method is to single-click the document in the Filename window and select the desired command. (Note that when you wish to perform a transaction on a *single document* it is not necessary to display its filename in the Files Selected window.)



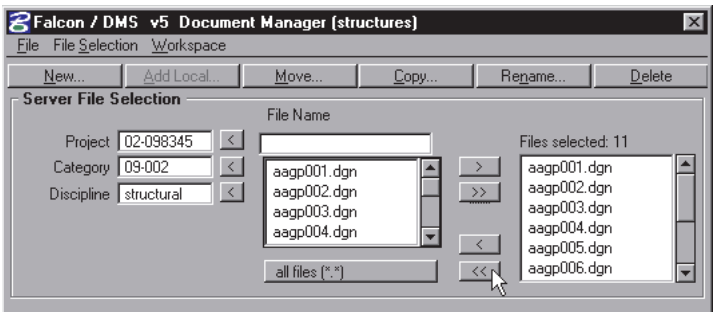
If you wish to perform an operation on two or more documents, the easiest method is to double-click on the documents in the Filename window. Select the desired command once the required files display in the Files Selected window. (Note that when you select more than one document the Open command is not available.)

To select multiple files you may use the <Ctrl>+click or press & drag combinations. Once the files are chosen, the group is considered a single selection; use the **>** button to display the items in the Files Selected window.



To select all the files in a directory, use the **>>** button to display the contents of the entire directory in the Files Selected window.

Use the **<** and **<<** buttons to deselect combinations of files or all files, respectively.

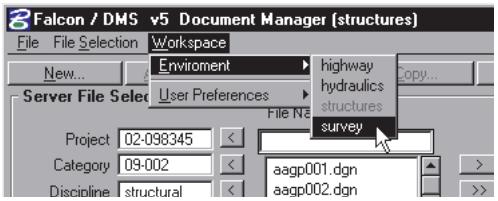


✔ **TIP**

When Falcon/DMS is configured to allow only unique filenames, you may build the 'files selected' list from different projects and subdirectories.

Multiple Environments

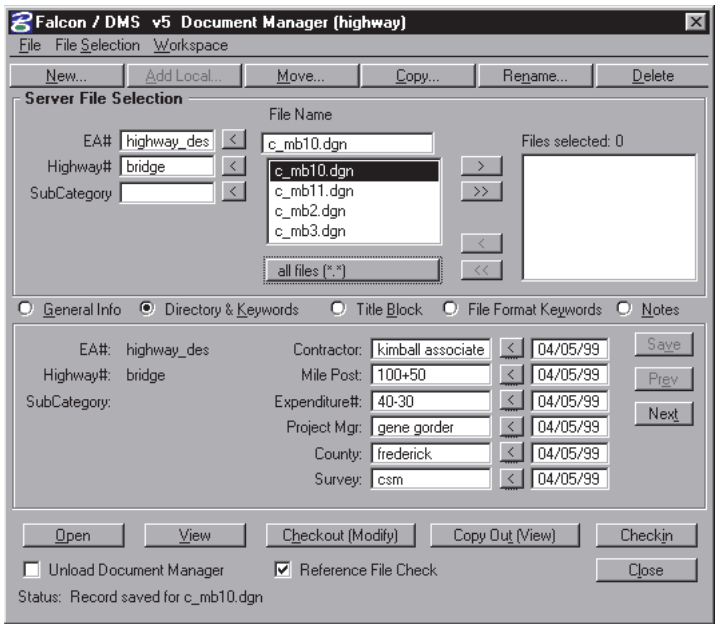
Multiple Environments allow different groups or departments (or for that matter, individuals) to work with configurations specific to their unique requirements. An environment definition may be configured to use global definitions for certain controls and to specify custom definitions for others.



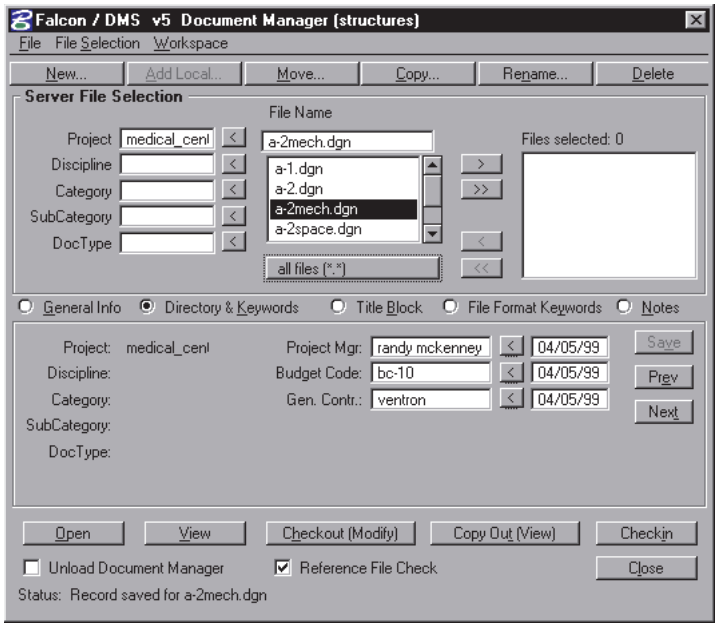
Falcon/DMS uses a set of configuration files and tables defined from the Administrator for many of the controls and option lists that appear on the Document Manager. The new Multiple Environments feature allows different groups or departments (or for that matter, individuals) to work with a Document Manager tailored to their specific requirements. An environment definition can use existing configuration files and tables (global definitions) for certain controls and build unique configuration files and tables for others. Also, Falcon/DMS can use any of the existing global definitions as a template for a unique definition, making the Multiple Environments feature easy to configure.

Examples of how Environments effect the appearance of the user's interface appear below.

The Document Manager for the [highway] environment uses EA#, Highway#, and SubCategory for its directory labels and has its own 'EA#' table. It has six system level Keyword Categories with unique tables. Compare this with the Document Manager that appears on the following page.

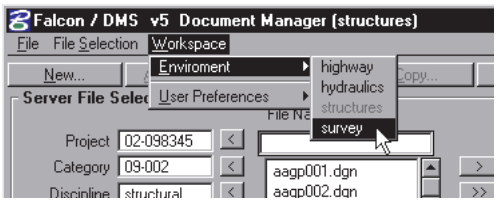


The Document Manager for the [structures] environment (below) uses Project, Discipline, Category, SubCategory, and DocType for its directory labels and has its own 'Project' table. It has three system level Keyword Categories with unique tables.

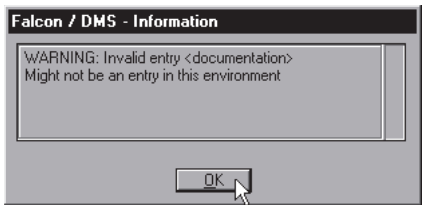


To set an environment or to change the current environment:

1. Select Workspace > Environment > (Environment Name) from the Document Manager's menu bar.



2. If the current project is not included in the selected environment, a message box appears. Press OK on the Falcon/DMS message box and proceed.



☞ ATTENTION

Falcon/DMS synchronizes the current server directory selection for the MDL Document Manager with that of the Windows Document Manager when the two interfaces share the same environment. However, when MDL is set to an environment different from that used by Windows, you will be notified that the current Windows project is not included in the selected MDL environment. Simply click OK and proceed.

✔ TIP

Directory List Button: This option is provided for systems running over a slow or overburdened network. On such networks, performance may be affected by the display of a file list for directories that contain a large number of documents. The Directory List Button allows you to delay the display of the file list until the desired directory is selected.

✉ NOTE

The Server View Mode user preference allows users to choose between a database view or a directory view of documents controlled by Falcon/DMS.

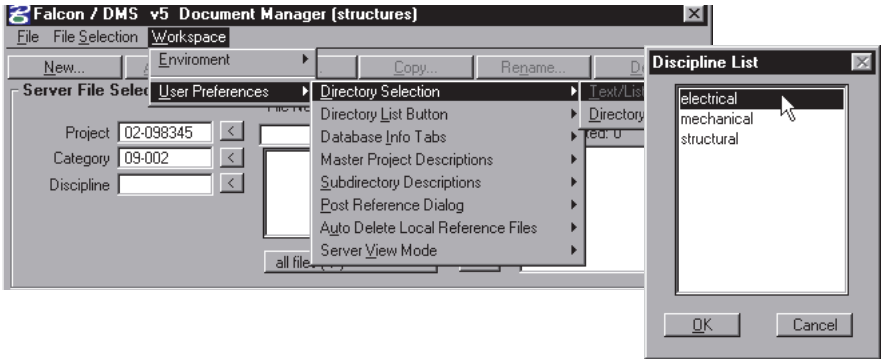
The database view is recommended for overburdened networks and for networks that rely on FTP. The database view also allows users to more easily view database records for non-electronic documents and for sets; previously such items could be seen only from a database search result.

The directory view is recommended when server-based documents need to be added to the database.

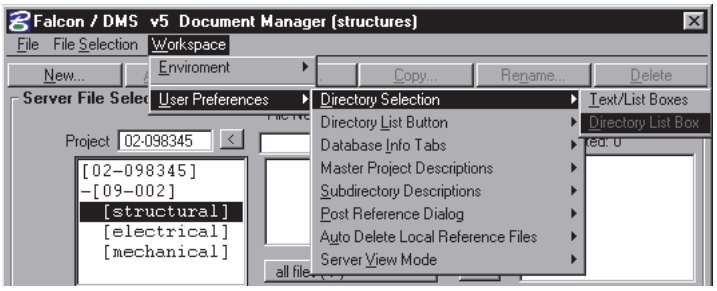
The 'Directory Selection' User Preferences

The Server File Selection regions displays directory information in two ways:

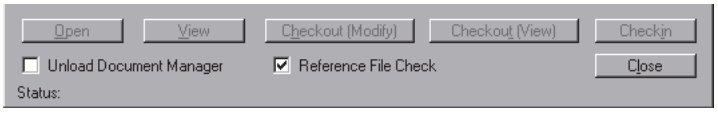
❑ The Text/List Boxes option uses list boxes from which projects and their subdirectories are chosen. Press [<] to display a list box.



❑ The Directory List Box option displays subdirectories in the standard Windows mode. Press [<] to display the Text List box from which you choose a project. 'Drill down' to the desired subdirectory from the associated list.



Miscellaneous Controls



Unload Document Manager:

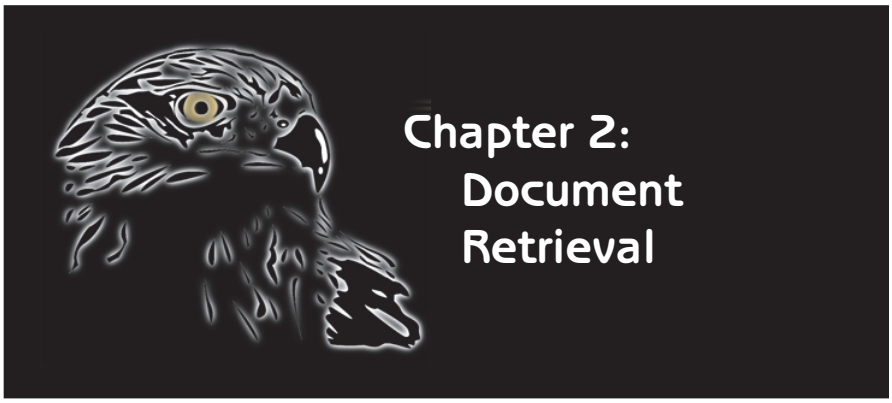
When enabled, this option closes the Document Manager after each operation.

Reference File Check:

When disabled, Falcon/DMS does not check for Reference File attachments. Access to this control is enabled from the Falcon/DMS Administrator's File Formats/Applications environment (see Additional IGDS Parameters > Check For Reference Files > Check MDL Dialog Check box).

Falcon/DMS

The Document Manager (MDL)



This chapter provides a step-by-step explanation of the procedures used to retrieve design files for modification or for viewing, and includes an explanation of how reference files are attached and managed.

The Falcon/DMS document retrieval commands include the following operations:

- ❏ Open (Modify)
- ❏ Attach Reference/Xref Files
- ❏ Refresh Files
- ❏ Open (View)
- ❏ Check out (Modify)
- ❏ Copy Out (View)
- ❏ Check In

Opening a single document or checking out one or more documents are the two most basic Falcon/DMS operations.

When you open or check out a document through Falcon/DMS, a copy of that document (the 'working document') is placed in a predefined location on your local hard disk where it can be modified. The server version of this file (the 'record document') is set to a view only access mode and remains so until the working document is checked in. When a working document is checked in it is removed from your workstation and placed back on the server (becoming the new 'record' document), and is once again available to authorized users for modification.

When you ***open*** a document, it is checked out and opened in MicroStation as part of the same transaction.

When you ***check out*** one or more documents, Falcon/DMS reserves the documents for your use, usually to be opened and modified at a later time.

In each instance, other users' access to checked out files is limited to view only; they cannot be modified until you check them in.

The 'view' versions of the Open and Checkout commands (View and Copy Out) place a 'throw away' copy of a document on the local hard disk. View documents cannot be returned to the server and are deleted at your discretion.

TERMS

Open vs Checkout: When you open a document, Falcon/DMS checks out the document and, as part of that transaction, opens the file in the appropriate application. Given that the open command checks out the document as it is opened, it is not necessary to first use the check out command before opening a document.

When you check out one or more documents, Falcon/DMS reserves the documents for your use, usually to be opened and modified at a later time.

In each instance, other users' access to checked out files is limited to view only; they cannot be modified until you check them in.

The Open command is available only when you select a single document, while the Checkout command can be used to reserve multiple documents.

ATTENTION

When a user opens a document that has already been checked out to that user's workstation, Falcon/DMS knows to open the local version of the file, even if the user selects the file from the Server File Selection region. It is not necessary to set File Selection to Local File Selection to open checked out documents.

TIP

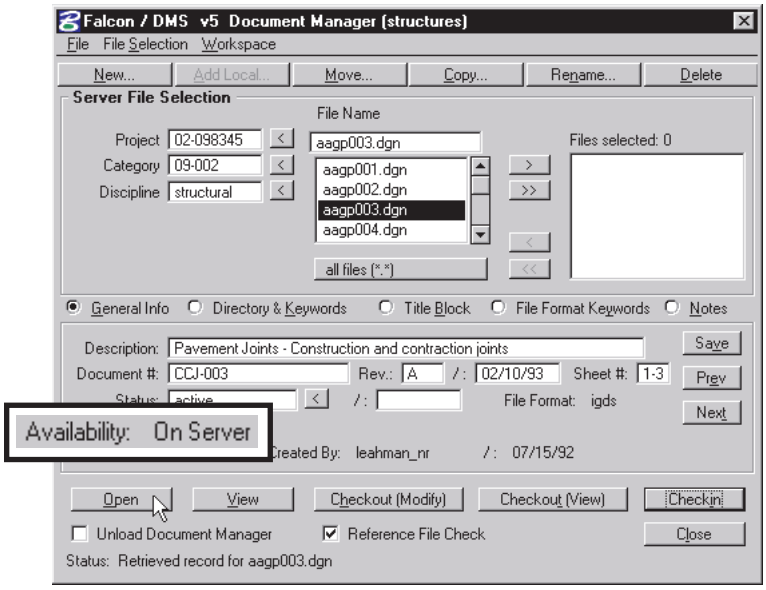
When you select a single file it is not necessary to display that filename in the File Selected window. Simply click on the desired file—its name will display in the File Name field—and select a command.

Open (Modify)

The Open (Modify) command places the working document on your local hard disk. The record document remains on the server as a view only file.

To open a design file:

1. Designate the current directory from the Server File Selection region, .
2. Select a design file from the File Name list window; verify its Availability.
3. Press Open (or select File > Open).



Falcon/DMS then checks the database for the document's Availability and Access status. Only if the Availability is 'On Server' and its Access status indicates that the file can be modified, will the document be checked out.

Falcon/DMS then determines whether reference files are attached. When reference files are present Falcon/DMS opens the Reference File Selection dialog box. Use this form to choose the reference files that will 'copied out' to the local workstation.

4. Select the reference files that you wish to use from the Reference File Selection dialog box.

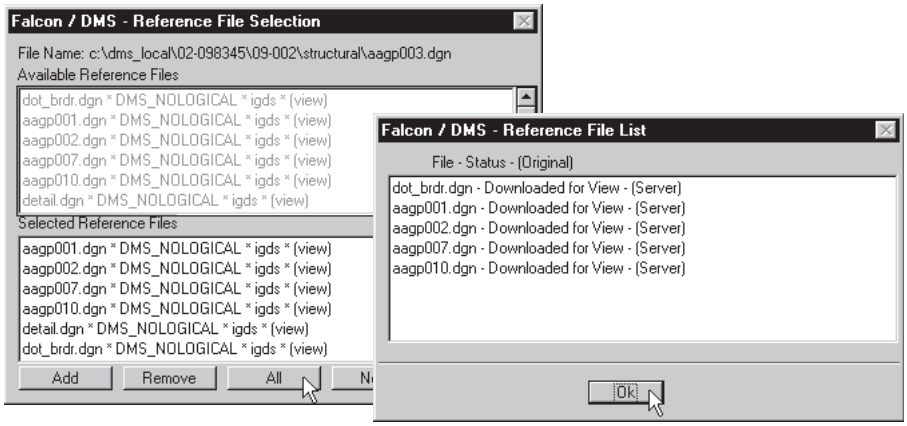
   Press All to select all listed reference files.

   Press None if you require no reference files.

   Double-click on individual files and press OK to choose only the reference files that you require.

   Use the Remove button, or double-click files in the Selected Reference Files list, to deselect reference files.

   Press OK.



5. The Reference File List box opens. This form provides the following information:

   Reference File Name

   Whether the file has been downloaded, updated, or is current with the server

   The Availability of the server-based original.

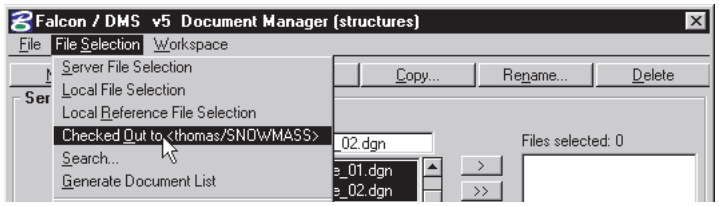
   Press OK.

Open (Modify)—From the Checked Out to <user> dialog box

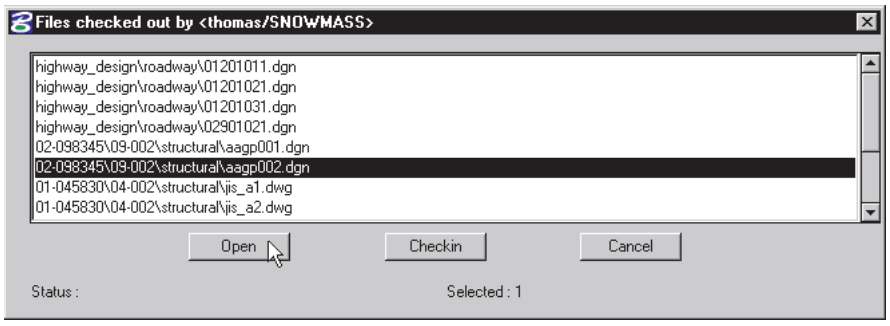
The Checked Out to <user> dialog box lists all the files that are checked out to you on the current workstation. This command is especially useful when you have checked out files from multiple projects and subdirectories.

To open a document from the Checked Out to <user> dialog box:

1. From the Document Manager's menu bar, select File Selection > Checked Out to <user>.
2. From the Files Checked Out to <user> dialog box, select the file you wish to open.



3. Press Open.



WARNING

"Security Alert: <user> does not have [Modify] privileges to this directory." This message indicates that Project Security cannot allow your account access to the current directory. When this or a similar message displays, consult either the project administrator or the Falcon/DMS administrator.

TERMS

"Availability: On Server" indicates that a document may be opened or checked out, provided you are authorized to access the file.

TIP

When you select a single file it is not necessary to display that filename in the File Selected window. Simply click on the desired file—its name will display in the File Name field—and select a command.

ATTENTION

The ability to select which reference files to 'copy out' to the local workstation can be beneficial when you are working with large data sets. You can use the Reference File Selection dialog box to choose only those reference files required for a given design session. If, after bringing down a partial reference file set, you require a complete set, use the reference file refresh command to bring down reference files not chosen at the beginning of the session. [Display of the Reference File Selection dialog box is controlled from the Falcon/DMS Administrator's File Formats/Applications environment (see 'Additional IGDS Parameters > Check For Reference Files > Enable Reference File Tagging' in the Falcon/DMS Administrator Guide).]

✔ TIP

The 'Reference File Check' miscellaneous control allows you to control whether a reference file check will be performed. When unchecked, Falcon/DMS does not look for reference files.

The display of this option is controlled from the Falcon/DMS Administrator's File Formats/Applications environment.

✉ NOTE

Display of the Reference File List box is a Document Manager User Preference. To enable or disable this feature go to Workspace > User Preference > Post Reference Dialog > On/Off.

☞ ATTENTION

Falcon/DMS can be configured to redirect MicroStation's File > Open and File > New (and Attach Reference) commands. When the command redirects are enabled affected commands will open the Falcon/DMS Document Manager.

Reference Files

When Falcon/DMS opens or checks out a MicroStation design file, it also determines which files, if any, are externally referenced to document. Falcon/DMS then 'copies out' the reference files to your local workstation. (Do not confuse 'copy out' with 'checkout; to 'copy out' a file does not effect its Availability.)

Before any reference file is copied to your workstation Falcon/DMS performs a number of database checks. The first is to insure that Falcon/DMS provides the most current version of the reference file available on the server. The second is to identify when a reference file may not be the most current version of the document. This usually occurs when another user has checked out a file that is referenced to your active document. In this case, Falcon/DMS identifies the user and the workstation to which the reference file is checked out.

Typically, the reference file is copied to c:\dms_local\ref. This destination directory is defined by the Falcon/DMS administrator.

Since MicroStation with Falcon/DMS is configured to look for reference files in a specific location (i.e. c:\dms_local\ref) it is not necessary to enable the Save Full Path option.

Because the reference files are 'copied out' rather than 'checked out', they are considered to be 'throw-away' files and cannot be returned to the server. Reference files remain on your workstation until you delete it (deleting reference files is discussed later in this chapter).

Reference File User Preferences

- ❏ Post Reference Dialog: When enabled, the Reference File list box opens each time a document to which reference files are attached is opened or checked out.
- ❏ Auto Delete Local Reference Files: When enabled, Falcon/DMS automatically deletes local reference files when the parent document is checked in. It is important to note that when Auto Delete is enabled, Falcon/DMS has to download reference files each time you open a MicroStation document, resulting in increased network traffic.

Miscellaneous Control

- ❏ Reference File Check: When enabled, Falcon/DMS performs a reference file check for files as they are opened or checked out. When checking out multiple files, it is recommended that you turn off the Reference File Check preference, then turn it on before you open any checked out document.

The Reference File list box

When the Post Reference Dialog user preference is on, each time a document to which reference files are attached is opened or checked out, the Reference File List box opens. In addition to the filename, this list box provides the following information about each reference file:

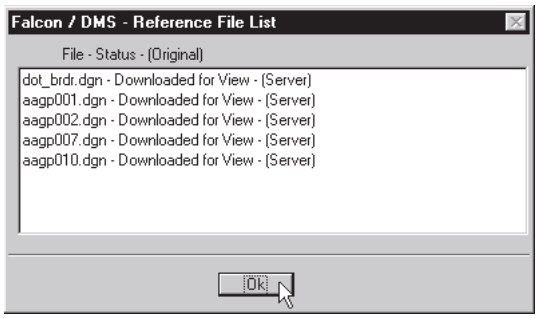
The status of each reference file

- ❏ Downloaded for view—a local version is not found; the reference file is copied out for view.
- ❏ Local version is current with server—a local version is found; because the local version is identical to the server version no action is taken.
- ❏ Not database record—either a reference file does not have a record or Falcon/DMS is unable to resolve the attachment; see the Falcon/DMS administrator.

The present location of the most current version of the original of each reference file

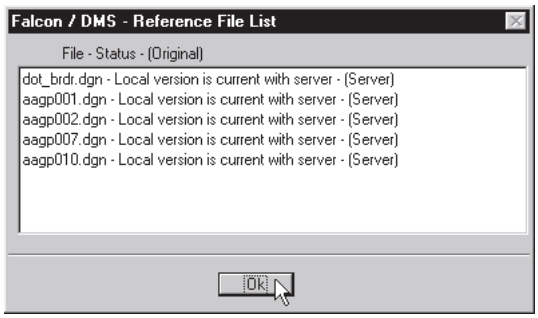
- ❏ Server—the most current of version of the original file is not checked out.
- ❏ <user/workstation>—the most current version of the original file is checked out to the identified user on the identified workstation.

Filename - Downloaded for view - (Server)



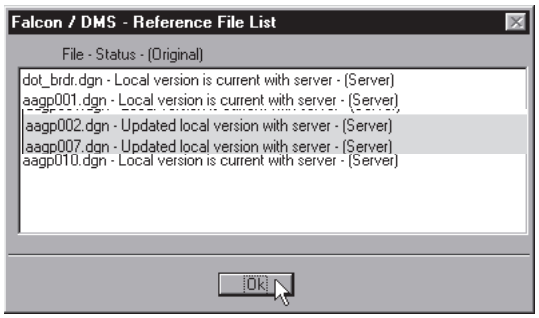
This status indicates that all the attached reference files have been downloaded to the local hard disk. The notation '(Server)' indicates that the most current version of the original of each reference file is not checked out.

Filename - Local version is current with server - (Server)



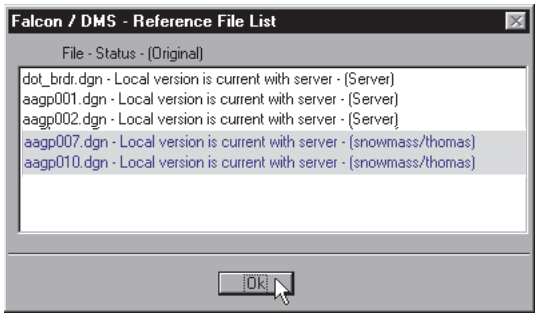
This status indicates that all the attached reference files have already been copied to the local hard disk and that they are identical to their server versions. In this case no reference files are recopied to the local hard disk.

Filename - Updated local version with server - (Server)



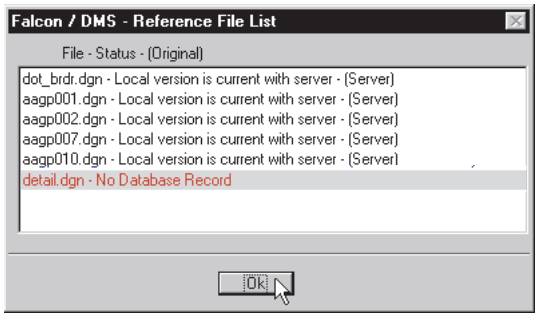
This status indicates that the local versions of two of the five reference files have been downloaded again. At some point, between the time the active file was closed and/or checked in and then reopened, another user modified and then checked in the indicated files.

Filename - Local version is current with server - (workstation/user)



This status appears when all the attached reference files are already on the local hard disk and that they are identical to their server versions. However, the indicated files, while current with their server versions, are no longer the most current versions of the files. Note that the workstation and user to whom documents are checked out are identified. (The Refresh Reference File command, available in the MDL version of the Document Manager, can be used to retrieve a more current version of these files.)

Filename - No Database Record



This status appears when a reference file does not have a database record or Falcon/DMS is unable to resolve the attachment Usually a file without a database record will not display in the parent design file. Please see the Falcon/DMS administrator when this notation appears.

Attaching MicroStation Reference Files from the Document Manager

❑ It is strongly recommend that you use the Falcon/DMS Attach Reference File command to attach reference files to the active design file. When you use Falcon/DMS, the Document Manager writes a system generated reference file path logical to the active design file. This insures that Falcon/DMS always finds the correct file without the need to define multiple MS_RFDIR values in workspace configurations. (This occurs only for database types that permit a specific filename to be used more than once.)

Note: A detailed explanation of how Falcon/DMS uses reference file path logicals is provided in the Administrator Guide.

❑ Because most organizations now configure Falcon/DMS to use UNC or FTP to access network resources, the only access to the production design files on a file server is through Falcon/DMS. This means that when mapped network drives are not defined, MicroStation's Attach Reference command cannot see the server-based production directories.

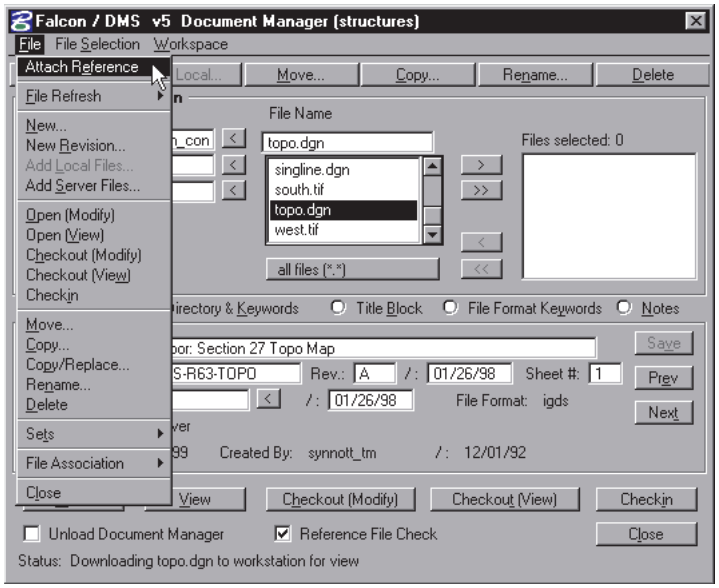
❑ When MicroStation's Falcon/DMS file format (igds) is defined, the standard attach reference file command is often 'redirected' to Falcon/DMS. Thus, when a user selects MicroStation's File > Reference File > Attach command, the Falcon/DMS Document Manager opens instead of the standard MicroStation dialog box.

To attach a reference file to the active design file:

Note: Falcon/DMS requires that the document to which you are attaching reference files be the active file.

1. If necessary, navigate to the directory that contains the document you wish to attach as a reference file. (Because Falcon/DMS will build its own path logicals the document can exist anywhere within the data structure.)

2. Select the document you wish to attach as a reference file. From the Falcon/DMS menu bar, select MicroStation > Attach Reference File.



3. At this point Falcon/DMS turns the task over to MicroStation—proceed as usual.

✔ TIP
It is not necessary to enable the Save Full Path option on MicroStation's Attach Reference File dialog box. (See the 'Behind the scenes' section, this page.)

✉ NOTE
Multiple Reference Files: You must repeat the process described in this section for each individual reference file.

☞ ATTENTION
Except for the Attach Reference command, all reference file operations are performed with standard MicroStation Reference File commands.

Detaching a Reference File

Falcon/DMS does not have a detach reference file command. Instead, use the standard method prescribed by MicroStation: Select File > Reference Files from the MicroStation menu bar, on the Reference Files dialog box select the file you wish to detach, then chose Tools > Detach from the Reference Files menu bar.

Additional Reference File Operations

Additional Reference File operations are described in Appendix A. These include the Modify Reference File Logicals command, exchanging one reference file for another while maintaining the reference file attributes (scale, clip boundaries, etc.) defined for the original, and attaching reference files with the System Generated, No Logical and Key In logical options.

Manually Deleting Local Reference / Xref Files:

1. Set File Selection to Local File Selection.
2. The Document Manager's current directory becomes the local working directory—the default is c:\dms_local\.
3. Navigate to c:\dms_local\ref for MicroStation or c:\dms_local\xref for AutoCAD.
4. Select the file or files that you wish to delete. Press Delete (or select File > Delete).

   On the Falcon/DMS Confirmation box select Yes to delete files individually or Yes to All to delete all selected files.

   ### Attention MicroStation Users:

   You cannot delete a reference file attached to the active file—Falcon/DMS does not permit reference files attached to the active file to be deleted. If you attempt to delete any of the active document's reference files, Falcon/DMS ignores the operation.

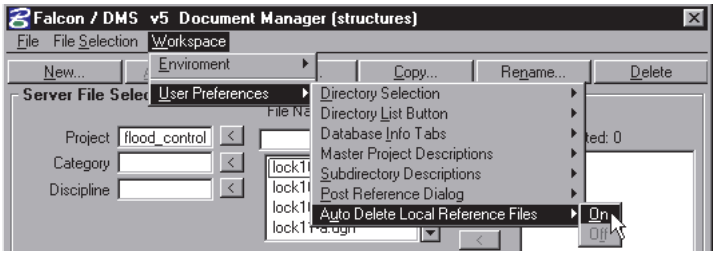
Deleting Local Reference Files

Falcon/DMS provides two ways to 'throw away' the local reference files:

- ❑ Auto Delete: When enabled, Falcon/DMS automatically deletes the appropriate local reference files when the parent file is checked in.
- ❑ Local File Selection > Delete: This procedure allows you to view the contents of the local reference directories and select and delete files at your own discretion. (The local reference directory is c:\dmslocal\ref.)

Enabling Auto Delete:

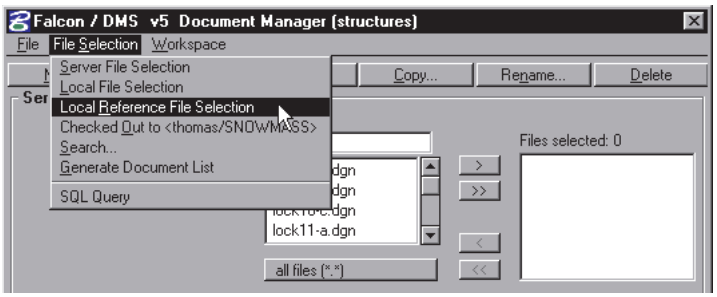
From the Document Manager's menu bar select Workspace > User Preference > Auto Delete Reference Files > On.



As a document is checked in, Falcon/DMS identifies and deletes the appropriate local reference files, if any.

Manually Deleting Local Reference:

1. Set File Selection to Local File Selection.



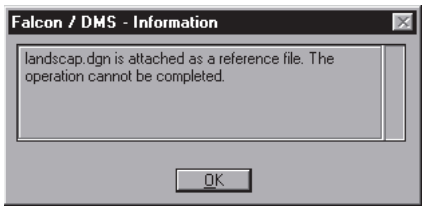
2. The Document Manager's current directory becomes the local working directory—the default is c:\dms_local\.
3. Navigate to c:\dms_local\ref .
4. Select the file or files that you wish to delete. Press Delete (or select File > Delete).

   On the Falcon/DMS Confirmation box, select Yes to delete files individually or Yes to All to delete all selected files.

Attention—You cannot delete a reference file attached to the active file.

Falcon/DMS does not permit reference files attached to the active file to be deleted. If you attempt to delete any of the active document's reference files the following message appears:

You must first check in or otherwise close the current file. Once closed, you may delete the local reference files.



Refresh File Commands

Because these commands are essentially copy and replace operations, they should be used with caution. The MDL version of the Document Manager provides the following Refresh File operations:

- ❏ Refresh Reference Files: This operation permits the user to refresh all or selected reference files with their server-based originals.
- ❏ Refresh Local Design File: This operation permits the user to automatically retrieve and open a 'fresh' or unmodified version of the active file. Because this local file is overwritten by a fresh copy of the server-based original, any modifications made to the file are lost.
- ❏ Refresh Server Design File: This operation permits the user to refresh the server-based original with the active file.

The 'Refresh Reference Files' Command

The Refresh Reference Files command allows users to update any or all of the reference files attached to their active drawing with a more current version of that file.

Recall that when a file to which reference files are attached is opened, Falcon/DMS indicates which reference files are not already downloaded to the local hard disk, which reference files are current with the server version, and which reference files are checked out to another workstation and user. You may use this 'workstation/user id' to identify the person from whom you can request an updated version of your reference file; that person will refresh the server-based original with their current file and you, in turn, will refresh your reference file.

Users have the option of refreshing all or selected reference files.

Attaching a Reference File:

Falcon/DMS does not have a detach reference file command. Instead, use the standard method prescribed by MicroStation: Select File > Reference Files from the MicroStation menu bar, on the Reference Files dialog box select the file you wish to detach, then chose Tools > Detach from the Reference Files menu bar.

✙ WARNING: Refresh Local & Refresh Server

USE WITH CAUTION—Keep in mind the basic rule of carpentry: measure twice, cut once.

Refresh Local File: Because the local file is overwritten by a fresh copy of the server-based original, any modifications made to the local file are lost.

Refresh Server File: This command overwrites the server-based record copy of a file with its working version. If the server file is unintentionally refreshed you will have to retrieve a new record version from backup.

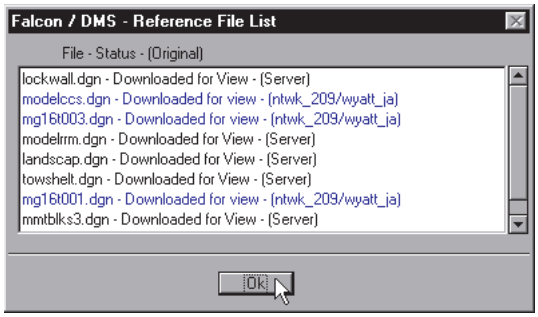
☞ ATTENTION

To refresh a document's reference files that document must

To refresh a Reference File/Files:

In the process of opening a design file the Reference File List box indicates that three of the requested document's reference files are checked out to a wyatt_ja on workstation ntwk_209.

The user 'wyatt_ja' is contacted and asked to either check in or refresh the files indicated on the Reference File List box. Once done, you are ready to refresh you reference files.



Please note that to refresh a document's reference files that document must be opened as the active file.

1. From the MicroStation's menu bar, select Falcon/DMS > File Refresh > Reference Files,

   or

   from the Document Manager's menu bar select File > File Refresh > Reference Files.

2. On the Falcon/DMS Alert box, press OK.

3. The active design file closes temporarily and is replaced by the banner file. The Reference File Selection dialog box opens. You may select only those reference files affected by the file refresh operation or all reference files.

4. The Reference File List box displays the updated reference file conditions. Press OK.

The 'Refresh Local File' Command

The File Refresh > Local Design File command permits you to automatically retrieve and open a 'fresh' version of your current file. Because the local file is overwritten by a fresh copy of the server-based original, any modifications made to the local file are lost.

To refresh a Local File:

1. From the MicroStation's menu bar, select Falcon/DMS > File Refresh > Local Design File,

   or

   from the Document Manager's menu bar select File > File Refresh > Local Design File.

2. Press OK on the Refresh Local Design File alert box.

The 'Refresh Server File' Command

The Refresh Server File command permits you to automatically refresh the server-based original with the current file without closing the current file. Please note that if the server file is unintentionally refreshed, you will have to retrieve a new record version from backup. [Use this command with extreme caution.]

To refresh a Server File:

1. From the MicroStation's menu bar, select Falcon/DMS > File Refresh > Server Design File,

   or

   from the Document Manager's menu bar select File > File Refresh > Server Design File.

Open (View)

The Open (View) command permits you to view a document without checking it out from the database. Use this command to view a document that is checked out to another user. When you view a document, a copy of that document is placed in the view directory on the client workstation (usually c:\dms_local\view).

To view a design file:

1. From the Server File Selection region, designate the current directory.
2. From the File Name list window, select a document.
3. Press View (or select File > View).
4. The Falcon/DMS Information box indicates that the file is read only. Press OK.

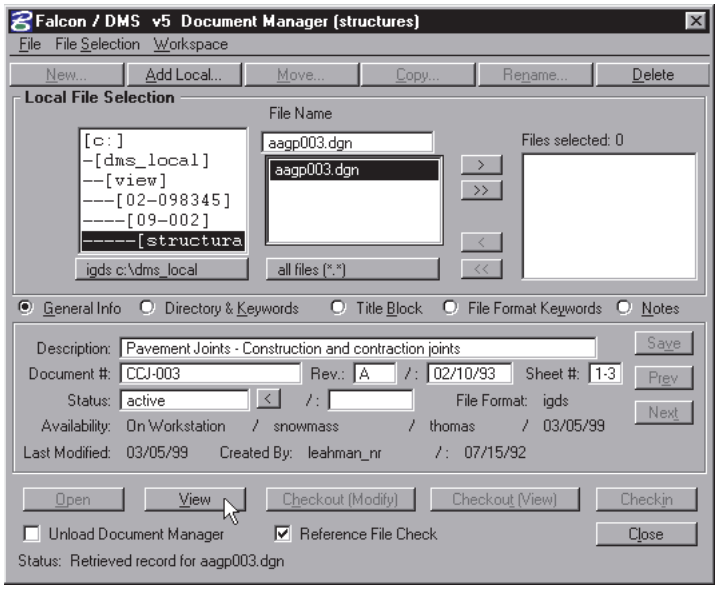
   Falcon/DMS copies out and opens the selected document for viewing.

To view a design file already copied out for viewing:

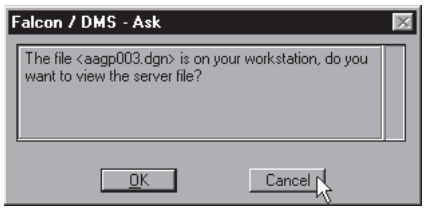
A view file that is copied out to the requesting workstation remains available for viewing until the file is deleted (see next section). If you do not wish to update a copied out file with its server version, you may view the copied out version of the document by setting the File Selection to Local.

1. From the File Selection menu, choose Local File Selection.
2. In the Local File Selection region, navigate to the project under the c:\dms_local\ view directory.
3. From the File Name list window, select a document.
4. Press View (or select File > View).
5. A Falcon/DMS Alert box opens, indicates that the file is on your workstation, and asks if you want to view the server file. Press Cancel to view the local file or OK to view the server file.
6. A Falcon/DMS Information box opens, indicating that the file is read only. Press OK.

Falcon/DMS opens the selected document for viewing.



7. A Falcon/DMS Alert box opens, indicating that the file is on your workstation and asking if you want to view the server file. Press Cancel to view the local file or OK to view the server file.



8. On the Falcon/DMS Information box (indicating that the file is read only), press OK.

   Falcon/DMS copies out and opens the selected design file for viewing.

To delete a local document/documents copied out for viewing:

A view file that is copied out to the requesting workstation may be deleted through the Windows Explorer or through the Falcon/DMS Document Manager. To delete a view file/files from the Document Manager:

1. From the File Selection menu, choose Local File Selection.
2. In the Local File Selection region, navigate to the project under the c:\dms_local\ view directory.
3. From the File Name list window, select the documents you wish to delete.
4. Press Delete (or select File > Delete).
5. On the Falcon/DMS Confirmation Box, press the Yes or Yes to All buttons.

Checkout (Modify)

The Checkout (Modify) command permits a user to checkout one or more documents to a client workstation and hold them in reserve until they are checked back into the database. Falcon/DMS restricts access to the original documents on the server to view_only.

To Checkout a document for modification:

1. From the File Selection menu, choose Server File Selection.
2. From the Server File Selection region, designate the current directory.
3. From the File Name list window, select one or more design files.
4. Press Checkout button (or select File > Checkout).

Copy Out (View)

The Copy Out (View) command is designed to permit a user to view two or more documents without checking them out from the database; the server-based record version of the design files remain available to be opened or checked out by another user.

When Falcon/DMS is used to view a design file, a copy of that file is placed in a 'view' directory under the application's working directory (e.g. (c):\dms_local\view).

To Copy Out multiple documents for viewing:

1. From the File Selection menu, choose Server File Selection.
2. From the Server File Selection region, designate the current directory.
3. From the File Name list window, select one or more design files.
4. Press Copy Out [View] (or select File > Copy Out [View]).

Deleting 'View' Documents

A view file that is copied out to a workstation is considered to be a 'throw away' file and may be deleted through the Windows Explorer or through the Falcon/DMS Document Manager.

To delete a local design file/files copied out for viewing:

1. From the File Selection menu, choose Local File Selection.
2. In the Local File Selection region, navigate to the project under the c:\dms_local\view directory.
3. From the File Name list window, select the documents you wish to delete.
4. Press Delete (or select File > Delete). On the Falcon/DMS Confirmation Box, press Yes or Yes to All.

✔ TIP
When Falcon/DMS is configured to allow only unique filenames, you may build the 'files selected' list from different projects and subdirectories.

Check In

The Check In command returns checked out documents to the server and updates the database record of affected documents, making each available to other users for modification. Falcon/DMS provides several ways to check in documents:

To check in a design file—Server File Selection:

1. From the File Selection menu, choose Server File Selection.
2. From the Server File Selection region, designate the current directory.
3. From the File Name list window, select the file/files to check in.
4. Press Check In (or select File > Check In).

To check in a design file from the Checked Out to <user> dialog box:

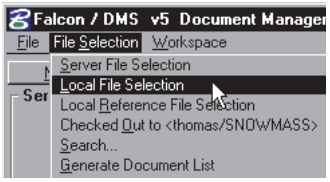
The Checked Out to <user> dialog box lists all the files that are checked out to you on the current workstation. This command is especially useful when checking in files from multiple projects and subdirectories.

1. From the Document Manager's menu bar, select File Selection > Checked Out to <user>.
2. From the Files Checked Out to <user> dialog box, select the file/files to check in.
3. Press Check In.

Creating Records with the Check In Command

When a list of files selected for check in contains documents for which database records do not exist, Falcon/DMS can create the necessary records as part of the check in operation. This feature is especially useful when working with applications that generate new files locally that you Falcon/DMS to manage.

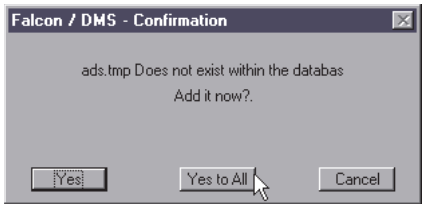
For Falcon/DMS to check in a set of files containing these new, local items and create their database records, you must select the files from a Local File Selection. Otherwise, the Document Manager will not be able to see the new files.



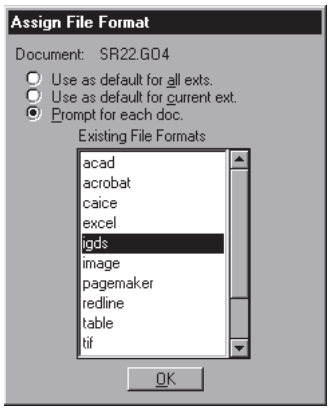
To create database records during check in [Local File Selection]:

1. Set the Directory Selection to Local File Selection. Navigate to the desired local directory and select the files to be checked in. (Whether the files have database records does not matter at this point.)
2. From the Local File Selection region, navigate to your project directory. Press **>>** to select all the files in the current directory. This selection will contain files with database records and the new files without database records. Press Check In.

3. When Falcon/DMS encounters a file without a database record a confirmation box appears. Press Yes to add files singly; Press Yes to All to add all files in the files selected list.



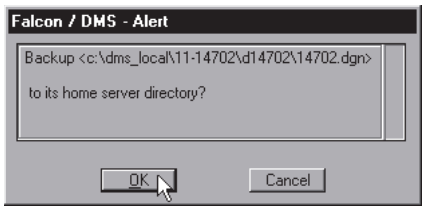
4. Because Falcon/DMS requires a file format for every document in the database, the Assign File Format dialog box appears when it encounters the first file that does not have a database record. From the 'Existing File Formats' list select a file format and enable one of the three options.



- ❏ Use as default for all exts: Assigns the selected file format to all files
- ❏ Use as default for current ext: Assigns the selected file format to all files with the same filter as that of the current file.
- ❏ Prompt for each doc: Assigns the selected file format only to the current file.

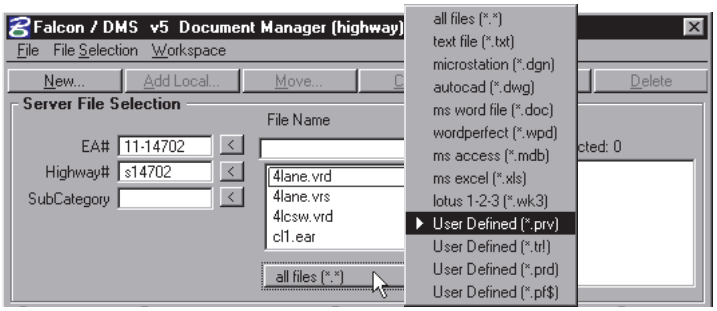
Press OK to process.

Prompt for Backup



Falcon/DMS provides for the automatic backup of any file. This backup can be configured to save the file to a designated backup directory on the server or to the file's server-based home directory. Another method is to prompt the user for a backup. When the operation is set to 'prompt user' you are given the opportunity to create a backup when you exchange one file for another or when you exit MicroStation.

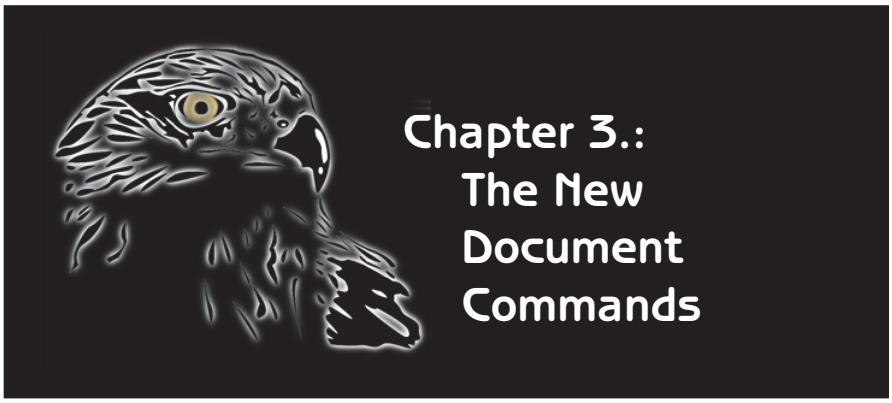
User Defined Filters



Falcon/DMS supports up to four user defined file filters. Simply enter a filter string in the filename field and press <Enter> or <Tab> out of the field. A rolling list of user defined filters is added to the bottom of the filter option menu.

Falcon/DMS

The Document Manager (MDL)



The focus of this chapter is on using Falcon/DMS to create a document (in this case, a design file) and its database record. Recall that the Windows version of the Document Manager adds new files to the database, but relies on an application's File > New command to create files. The MDL version of the Document Manager permits the user to create a MicroStation design file (and its database record) as well as to add files to the Falcon/DMS database without leaving MicroStation.

The topics discussed in this chapter are:

- The Create New File command
- Intelligent Data Link (IDL)
- Revision Control
- The Add Local command

☞ ATTENTION

Falcon/DMS can be configured to redirect MicroStation's File > New command. When the command redirect is enabled, selecting the MicroStation command opens the Falcon/DMS Document Manager.

✔ TIP

Falcon/DMS can be configured to retrieve seed files from a central location on your network or, through the use of environments, from wherever departments or users maintain seed files.

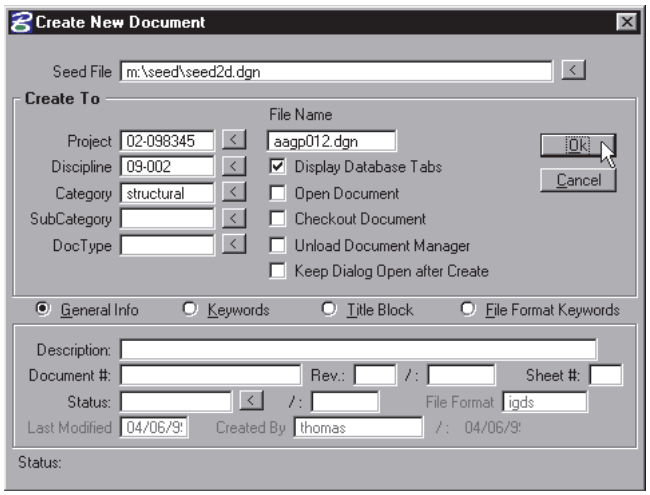
The New Design File Command

The **New Document** command enables the user to create a design file and its database record from within MicroStation.

To Create a MicroStation Document:

1. On the Document Manager, press New or choose File > New.

   The Create New Document dialog box opens.



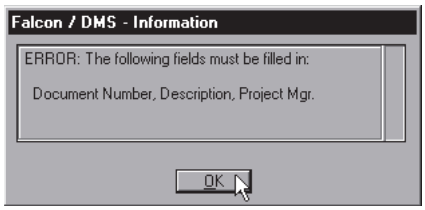
   ### Miscellaneous Options:

   - ❏ Display Database Tabs: When enabled, the General Info, Keywords, and Title Block 'tabs' are available.
   - ❏ Open Document: When enabled, Falcon/DMS opens the new design file and sets the Availability of the server-based original to on workstation.
   - ❏ Checkout Document: When enabled, Falcon/DMS checks out the new design file and sets the Availability of the server-based original to on workstation.
   - ❏ Unload Document Manager: When enabled, the Document Manager closes after each document is created operation

2. If it is necessary to use a seed file other than the default, press the **<** button to the right of the Seed File field. From the Seed File Listing dialog box, select a seed file.

3. Select the server-based home directory into which the new file will be placed.

4. In the File Name field, key-in a file name. Fill in database fields as necessary—Falcon/DMS alerts you to which fields are required.



5. Press OK on the Create New Document dialog box.

Intelligent Data Link (IDL)

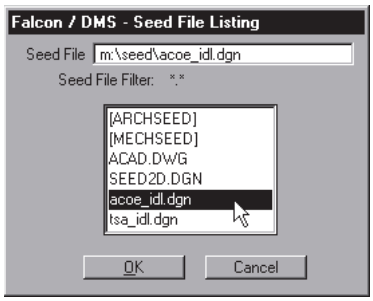
Intelligent Data Link, or IDL, establishes a bi-directional link between text node elements in a MicroStation design file and specified fields in the Falcon/DMS database. Integrated with the Create New Document command, IDL uses the database fields located on the General Info, Directory & Keywords, Title Block, and File Format Keywords tabs found on both the Create New Document dialog box and the Document Manager.

IDL is bidirectional—that is, the text displayed on targeted text nodes in a MicroStation design file can be modified from the document's database record, or the database record can be modified by editing the text nodes with MicroStation's Edit Text command.

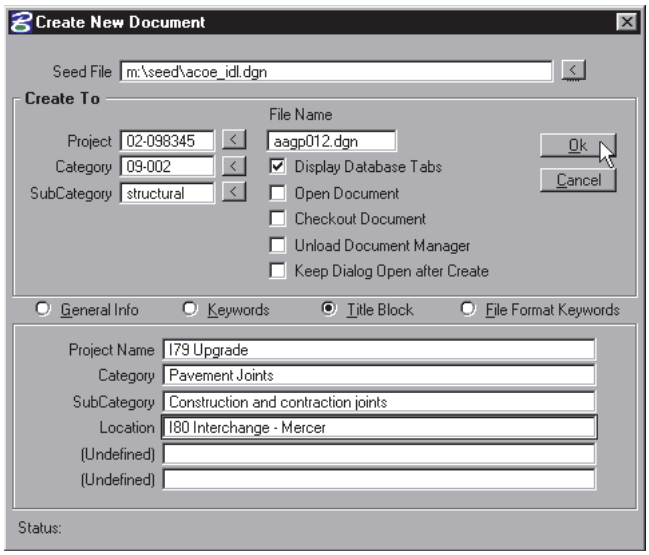
To create a design file with an Intelligent Data Link, simply select a seed file for which an IDL template has been defined and fill in the appropriate database fields.

Creating a design file with an Intelligent Data Link:

1. On the Document Manager, press New (or select File > New).
2. On the Create New Document dialog box, press the **<** button to the right of the Seed File field. From the Seed File Listing dialog box, select a seed file for which an IDL template file exists.



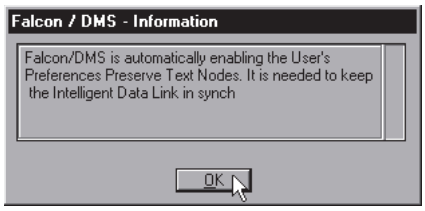
3. Fill in the appropriate database fields.



4. When finished, press OK.

IDL and the Preserve Text Nodes Preference:

To take advantage of IDL's ability to update text nodes in the design file when that document's database record is modified, Falcon/DMS automatically enables the Preserve Text Nodes control found in MicroStation's User Preferences environment. When MicroStation opens the first time after IDL is enabled you will be alerted to this automatic change.

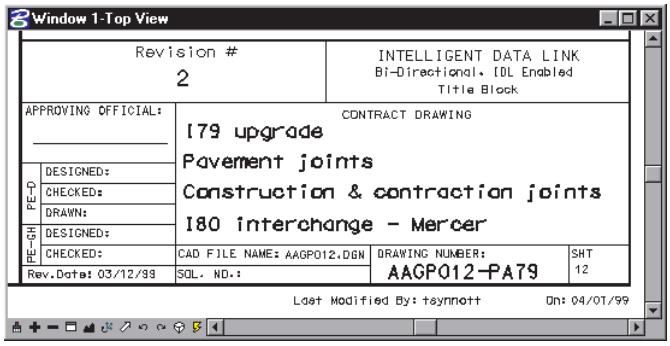


This setting preserves the text node status when a node is edited. Should you need to reset this control, select Workspace > Preferences from the MicroStation menu bar. In the Category list, choose Text. In the Set Text Preferences region, enable Preserve Text Nodes.

Modifying an IDL Through the Document Manager

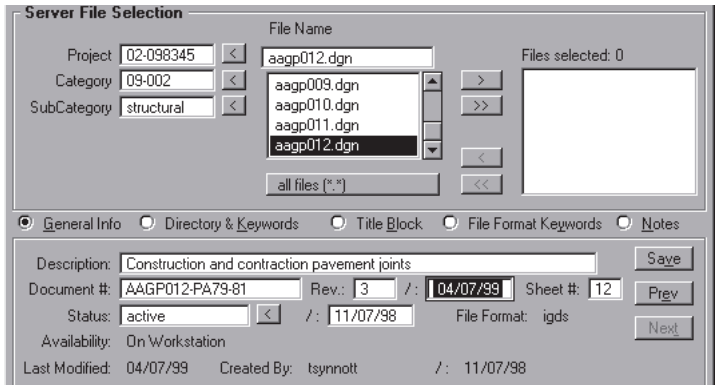
IDL data displayed on text nodes in a MicroStation design file is easily modified from the Falcon/DMS Document Manager.

1. Open a design file with IDL data.

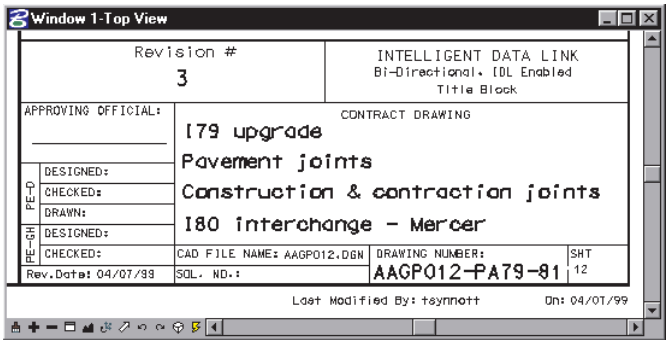


2. From the Document Manager's database info tabs, define new data or modify existing data.

   In the example: The Document Manager's General Info tab is used to change the Document # and the Revision Number—the revision date changes automatically.



3. When finished, press Save—In the MicroStation design file the Drawing Number #, the Revision Number, and the Revision Date automatically update.

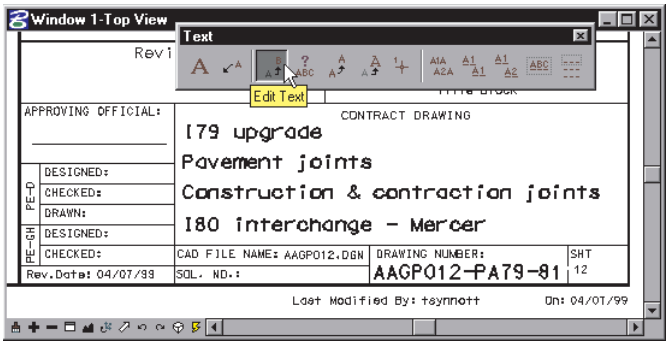


To illustrate the bi-directional character of the Intelligent Data Link, let's now look at how you modify the document's database record from the opposite direction.

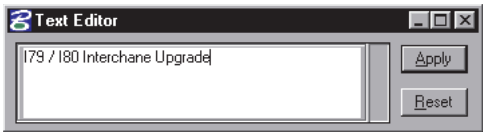
Modifying an IDL with MicroStation's Edit Text command

IDL data can also be modified with MicroStation's Edit Text command. However, directly editing a text node will not automatically update the design file's database record. To synchronize the database with the IDL data, the user must exit the current design file either by checking in the document or by opening a second file. At such time, the user is asked to verify the changes to the IDL data.

1. Open a design file with IDL data.
2. Select MicroStation's Edit Text command. Identify and accept an IDL linked text node.

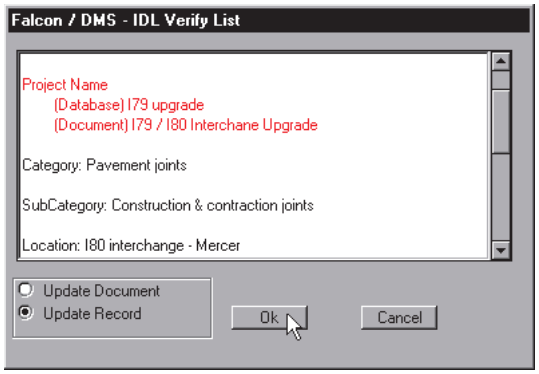


3. In MicroStation's Edit Text dialog box, edit the selected text and press Apply. The text node is altered to reflect the change made in the Edit Text dialog box. However, the design file's database record will not change until the design file is checked in or a second file is opened.



4. To update the document's record to reflect the change to the IDL data, the user must exit the current design file either by checking in the document or by opening a second file. Before the current design file is checked in or another design file opened, the user is asked to verify the changes made to the IDL data.

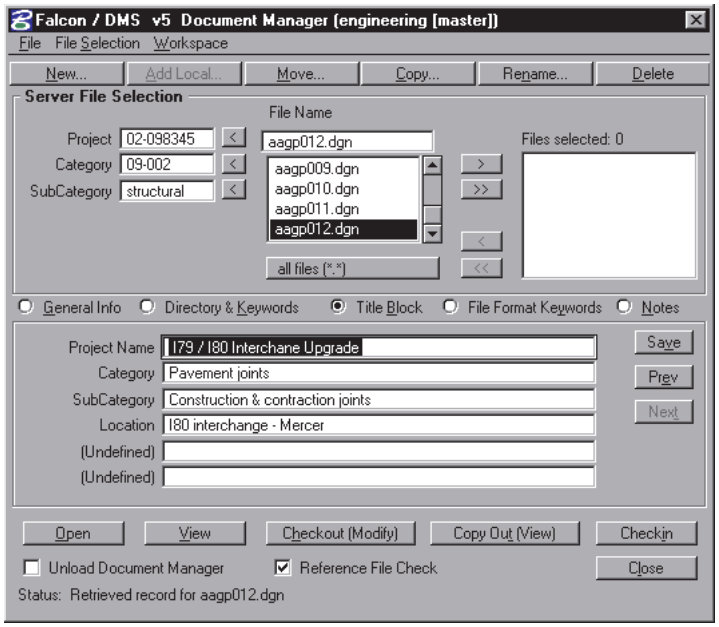
   The IDL Verify List dialog box displays affected categories in red and lists discrepancies between the MicroStation IDL data and document's database record.



   The user may choose between the following options:

- ❏ Update Document:
- ❏ Update Record: Select Update Record when IDL linked text nodes are modified with MicroStation's Edit Text command.

   The Document Manager now shows the changes made in MicroStation to the 'Project' title block field.



Revision Control

Revision Control is designed to track revisions in one of two modes—a History mode or an As-built/work-in-progress mode. The key difference between modes is in how each identifies the current revision.

Revision Control schemes can vary between file formats and can be enabled for some and not for others. Revision Control can be configured to create a new revision at file checkout or file check in, either automatically or at a prompt. Finally, Revision Control can be configured to allow you to create a revision at your discretion.

History Mode

In the History mode, each time Revision Control is used to generate a new revision of a document, Falcon/DMS creates a backup of that document and appends a notation to the copy's filename. If the 'move revision' option is enabled by the Falcon/DMS administrator, this copy is automatically moved to a designated subdirectory.

For example, lock10a.dgn is a document for which no revisions have yet been created, therefore the document's Rev# database attribute is blank. When the document's owner generates a new revision for lock10a.dgn, Falcon/DMS creates a copy using one of the following three notation formats:

- ❏ filename.ext.rev# [e.g. lock10a.dgn.rev0 or lock10a.dgn.revA]
- ❏ filename.rev#.ext [e.g. lock10a.rev0.dgn or lock10a.revA.dgn]
- ❏ filename.# [e.g. lock10a.0 or lock10a.A]

The copy, let's say lock10a.dgn.rev0, is considered to be the previous revision. Revision Control sets the Rev# for document lock10a.dgn to '1'. Because lock10a.dgn retains the original filename and its Rev# indicates the highest number, in the History mode this document is considered to be the current revision. (The current revision is also referred to as the working document.) The incremented filesnames (i.e. lock10a.dgn.rev0, lock10a.dgn.rev1, etc.) represent the revision history.

Because its Rev# is currently '1', the next time Falcon/DMS generates a new revision for lock10a.dgn, the copy will be named lock10a.dgn.rev1 and the copies Rev# will be set to '1'. The Rev# database attribute for lock10a.dgn, the current revision or working document, is set to '2'.

As-Built/Work-in-Progress Mode

In the As-built/work-in-progress mode, Revision Control copies the current revision, and assigns a new revision notation to its filename—and the copy becomes the current revision or working document. (This is the opposite of the History mode, in which the original remains the working document.) If the 'move revision' option is enabled, the previous revision is automatically moved to a subdirectory.

For example, lock10a.dgn is a the working document. No revisions have yet been created, therefore its Rev# database attribute is blank. When the document's owner generates a new revision for lock10a.dgn in the As-built mode, Falcon/DMS creates a copy of this document, naming the file lock10a.dgn.revA and sets the Rev# to 'A'. In this mode the current revision or working document is lock10a.dgn.revA and the previous revision is lock10a.dgn.

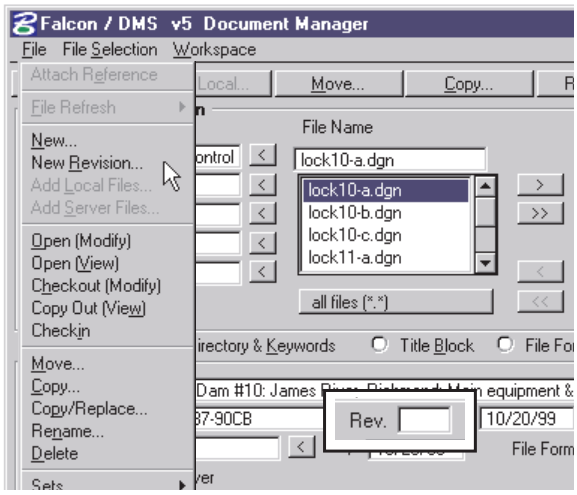
The next time Falcon/DMS generates a new as-built revision for lock10a.dgn.revA, the new revision will be named lock10a.dgn.revB and its Rev# will be set to 'B'. If the 'move revision' option is enabled, lock10a.dgn.revA is automatically moved to the designated subdirectory.

✉ NOTE
The previous revision of a document, that version that is often moved to a designated directory upon generation of a new current revision, is often assigned a Document Status with an access mode that is set to view_only, meaning that the previous revisions cannot be modified.

☞ ATTENTION
To create a new revision of a document, its Availability must be 'On Server'.

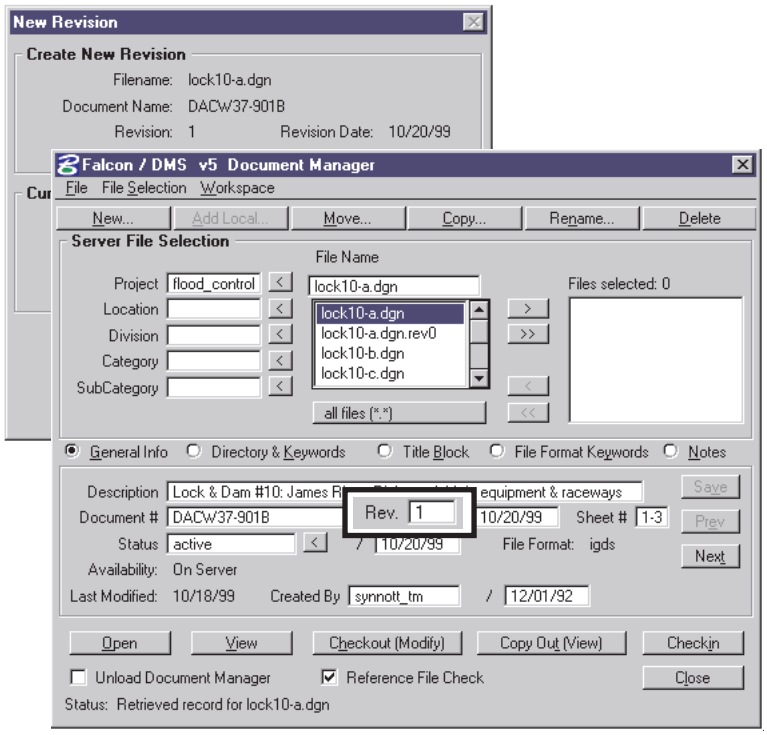
To create a new revision—History mode:

1.. From the Document Manager, select a filename. Verify that the document's availability is 'On Server'. (Note that the Rev# for lock10-a.dgn is blank.)



2.. From the Falcon/DMS menu bar, select File > New Revision. The New Revision dialog box opens.

3.. In this example the Document # field can be edited. Edit as required and press OK.



In this example the previous revision, lock10-a.dgn.rev0, is not moved to the designated directory. Note that the Rev# for lock10-a.dgn, the current revision or working file, is set to '1'.

The Add Local Files Command

The Add Local Files command is used to add files located on a client workstation to the database and move or copy the files to the server. For example:

An outside consultant provides a member of your organization with a set of documents that are to be used in the development of a project. The documents must be available to every person working on the project. The person in receipt of these files can easily accomplish this with the Add Local Files command

To add a local document

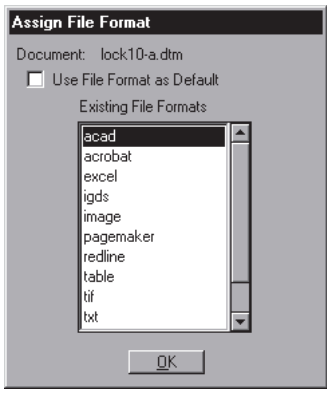
1. From the operating system, place the local files in MicroStation's working directory. In MicroStation, open the Falcon/DMS Document Manager.
2. From the File Selection menu, choose Local File Selection. (If necessary set the File Format to 'igds', making the directory into which the local files were moved the current directory.)
3. From the File Name list window, select the files you wish add to the database.
4. On the Document Manager, press Add Local Files (or choose File > Add Local Files). The Add Local File dialog box opens.
5. In the Add to region, designate the server-based target (or home) directory. Enter information and define settings on the General Info, Keyword, and Title Block tabs, as required.
6. Note that the Check in Document option is enabled. If you wish to checkout the file/files as part of this transaction, uncheck the Check in Document option.
7 Press OK.

When two or more files are selected you may process the files singly by clicking the Yes button—this allows you to individually process and define the contents of the database fields.

To process the group as one, press Yes to All.

When multiple files are selected and you click the Yes to All button, Falcon/DMS processes all MicroStation design files with a '.dgn' extension and all AutoCAD drawing files with '.dwg' extension and automatically assigns a file format of 'igds' and 'acad', respectively. When Falcon/DMS encounters files with other extensions you must assign a file format from the Assign File Format dialog box. The Assign File Format dialog box provides three options:

- ❏ Assign file format to all extensions
- ❏ Assign file format to current extension
- ❏ Prompt for each file.



✉ NOTE
This capability is especially useful when a user is permitted to create files on his local workstation with the intention of eventually placing one or more of these files under the control of Falcon/DMS.

✉ NOTE
The Check in command can also be used to create records for local files that are not yet controlled by Falcon/DMS. When using this approach you do not have the option to checkout files as their records are created.

☞ ATTENTION
[Applies to the Add Local Files and the Add Server Files commands] If the selected files are either *.dgn (igds) or *.dwg (acad) files, the File Format is automatically set. If files with different extensions are selected, the Add Local... and Add Server... commands prompt the user for a File Format each time they encounter a different extension.

☞ ATTENTION
The Add Server Files command is available only when the Server View Mode user preference is set to 'Directory'. When Server View Mode is set to Database files without database records do not display.

✉ NOTE
Unless specifically instructed to open or checkout the files as they are added to Falcon/DMS, the Add Server Files command leaves the files in their home directories and sets their Availability to 'On Server'.

The Add Server... Command

The Add Server command is used to add files already located in their server-based home directory, but without records, to the Falcon/DMS database. The operation of this command is very similar to that of the Add Local command.

To add a file located on the server:

1. From the operating system, place the files in their server-based home directory (access to the server required) and return to MicroStation.
2. From the File Selection menu, choose Server File Selection. Designate the directory containing the files to be added to the database as the current directory.
3. From the File Name list window, select the files you wish add to the database.
4. On the Document Manager, choose File > Add Server. The Add Server File dialog box opens.
5. In the Add to region, enter information and define settings on the General Info, Keyword, and Title Block tabs, as required.
6. Press OK.

   When two or more files are selected you may process the files singly by clicking the Yes button—this allows you to individually process and define the contents of the database fields.

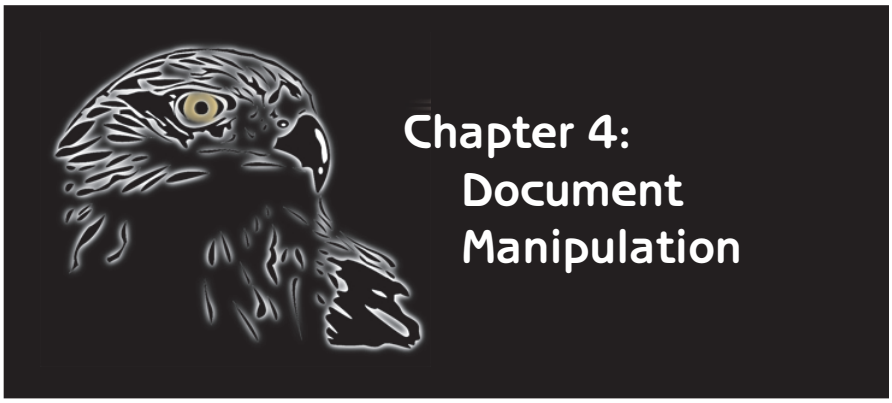
   To process the group as one, press Yes to All.

   When multiple files are selected and you click the Yes to All button, Falcon/DMS processes all MicroStation design files with a '.dgn' extension and all AutoCAD drawing files with '.dwg' extension and automatically assigns a file format of 'igds' and 'acad', respectively. When Falcon/DMS encounters files with other extensions you must assign a file format from the Assign File Format dialog box. The Assign File Format dialog box provides three options:

   - ❏ Assign file format to all extensions
   - ❏ Assign file format to current extension
   - ❏ Prompt for each file.

Falcon/DMS

The Document Manager (MDL)



Falcon/DMS helps manage the inevitable changes to a database with a full complement of design file manipulation commands. The Move, Copy, Copy/Replace, Rename, and Delete commands are designed to make safe what could be treacherous operations without Falcon/DMS. For example:

- ❏ Falcon/DMS will not move, copy, delete, or otherwise manipulate a design file until it satisfies all the database rules that govern such procedures.
- ❏ When a design file is renamed a record of its former name is maintained in the database.
- ❏ Design files are NOT necessarily deleted, rather they can be marked for deletion in your database and moved to a special location from which they can be easily restored.

TERMS

Source Directory: The directory containing the document/documents to be moved or copied.

Target Directory: The directory to which the document/documents is moved or copied.

ATTENTION

To move a document, its Availability must be 'On Server'.

NOTE

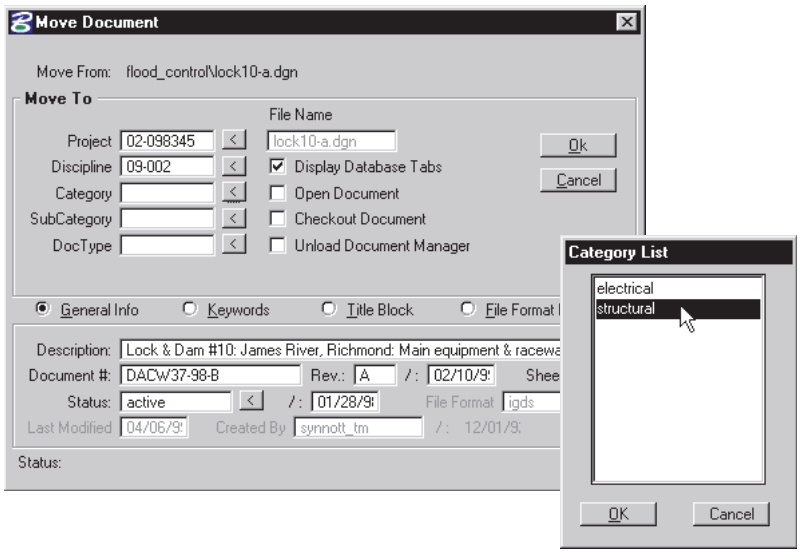
When a single document is moved, copied, copied and replaced, or renamed you may enable either the 'Open' or the 'Checkout' option. When multiple documents are selected only the 'Checkout' option is available.

The Move Document Command

Use the Move command to move a document/documents from one location to another and update their database records. The directory containing the documents to be moved is known as the source directory. The directory to which the documents are moved is known as the target directory. To move a document, its Availability must be 'On Server'.

To move a document:

1. From the Server File Selection region, make the source directory the current directory.
2. From the File Name list box, select the document/documents to be moved.
3. Press Move (or select File > Move). The Move Document dialog box opens.
4. In the Move To region, designate a target directory.



Open/Checkout Document Options:

- The Open/Checkout Document options are available for the Move, Copy, Copy/Replace, and Rename commands.
- When two or more files are selected, only the Checkout Document option is available.

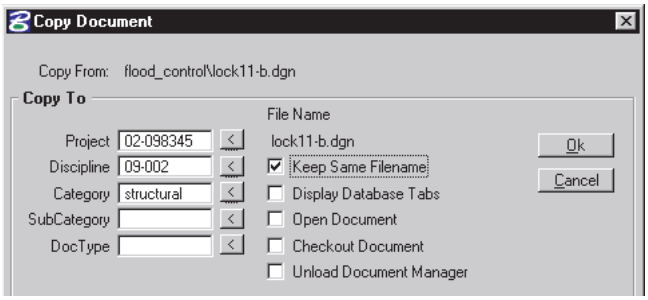
5. Press OK.

The Copy Document Command

Use the Copy Document command to copy a document/documents and create database records for the new files.

The Primary Index Key & the Copy Command: The level of filename uniqueness allowed by Falcon/DMS affects the operation of the Copy Document command:

- ❏ If the Primary Index Key is set to Filename, the Copy Document command forces you to specify a new filename.
- ❏ If the Primary Index Key is set to any of the other six options, you are permitted to use non-unique filenames in the target directory—you have the option of keeping the original name, or providing a new name for each file as it is copied.



To copy a document (Availability = On Server):

1. From the Server File Selection region on the Document Manager, designate the source directory as the current directory.
2. From the File Name list box, select the document/documents to be copied.
3. Press Copy (or select File > Copy). The Copy Document dialog box opens.
4. In the Copy To region, designate a target directory, then key in a filename.

   If the database permits duplicate filenames you may enable the 'Keep Same Filename' option.
5. Press OK.

✉ **NOTE**
The Copy command captures the document's previous name in the database. This information is displayed in the 'Copied/Renamed From' field on the File Access Info tab on the Database Maintenance dialog box (available only to the Falcon/DMS Administrator).

To copy a document (Availability = On Workstation [your workstation]):

Use this procedure to copy a file checked out to your workstation:

1. From the Server/Local File Selection region on the Document Manager, designate the source directory as the current directory.
2. From the File Name list box, select the document/documents to be copied.
3. Press Copy (or select File > Copy). The Copy Document dialog box opens.
4. In the Copy To region, designate a target directory and key in a filename.

   If the database permits duplicate filenames you may enable the 'Keep Same Filename' option.
5. Press OK. On the message box, press Yes to copy the local file,

   or

   Press No. A second message box opens. Press Yes to copy the server version of the file.

To copy a document (Availability = On Workstation [another workstation]):

Use this procedure to copy a file checked out to another user's workstation.

1. From the Server/Local File Selection region on the Document Manager, designate the source directory as the current directory.
2. From the File Name list box, select the document/documents to be copied.
3. Press Copy (or select File > Copy). The Copy Document dialog box opens.
4. In Copy To region, designate a target directory and key in a filename.
5. Click the OK button. On the message box, click the Yes button to copy the server version of the file,

   or

   press No to terminate the command.

The Copy/Replace Document Command

The Copy/Replace Document command permits you to replace one document (the *target* document) with a copy of another (the *source* document). The Availability of the 'target' and 'source' documents must be 'On Server'.

The content of the target document changes while its name remains the same.

The target document's database record is only partially altered—Falcon/DMS keeps the original creation, archive, backup, and location dates, as well as the archive time.

Why is this information retained? Perhaps an error is made in identifying the target design file and remains undiscovered for several days or weeks.. In other words, the wrong file was overwritten! Because the archive information is unaltered, you know precisely where in your system backup the previous version of the overwritten target design file can be found .

To copy/replace a document:

1. From the Server File Selection region, designate the source document's directory as the current directory.
2. From the File Name list box, select the source document/documents.
3. From the File menu, select the Copy/Replace command. The Copy/Replace Document dialog box opens.
4. In the Replace File region, designate the target document's directory as the current directory.
5. Select the target document—press the **<** button beside the File Name field. From the File List list box, choose the target document. When multiple source documents are selected, Falcon/DMS will prompt you to identify the next target document.
6. Press OK to close the Copy/Replace Document dialog box.

The Rename Document Command

Use the Rename Document command to rename a document. The Availability of the documents to be renamed must be 'On Server'.

The Rename Document command captures the previous name of renamed documents in the database.

To rename a Document:

1. From the Server File Selection region, designate the current directory.
2. From the File Name list box, select the document/documents to be renamed.
3. Press Rename (or select File > Rename). The Rename Document dialog box opens.
4. In the File Name input field, enter the document's new name.
5. Press OK.

☞ ATTENTION
To copy/replace a document its Availability must be 'On Server'.

✉ NOTE
The Copy/Replace command captures the document's previous name in the database. This information is displayed in the 'Copied/Renamed From' field on the File Access Info tab on the Database Maintenance dialog box.

☞ ATTENTION
To rename a document its Availability must be 'On Server'.

✉ NOTE
If all of the requirements governing filename uniqueness are not satisfied, Falcon/DMS will not allow a document to

The Delete Document Command

Use the Delete command to delete a document or documents. To delete a document its Availability must be 'On Server'.

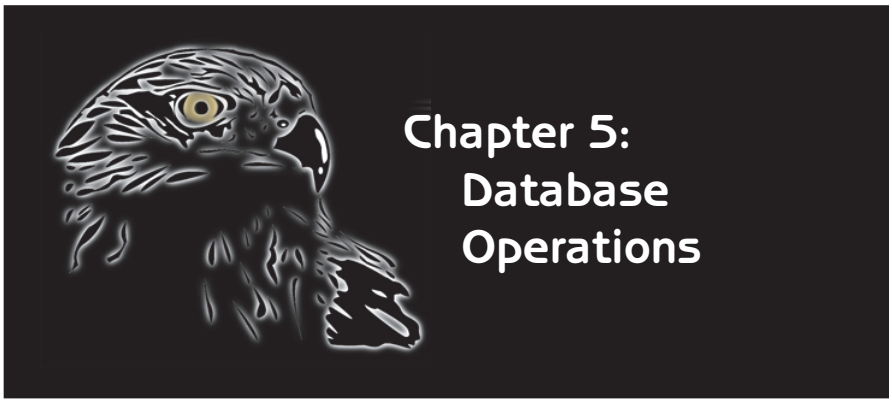
Note: Falcon/DMS can be configured to move 'deleted' documents to a secure area on the application server rather than actually deleting the files. Typically, files moved to this area will be maintained for a prescribed period before they are finally deleted. See your Falcon/DMS Administrator for more information.

To Delete a Document:

1. From the Server File Selection region, designate the current directory.
2. From the File Name list box, select the document/documents to be deleted.
3. Press Delete (or select File > Copy).
4. A Falcon/DMS alert box opens. Press Yes or Yes to All, as required.

Falcon/DMS

The Document Manager (MDL)



A principal benefit of the Falcon/DMS engineering document management system is the ability to search the document database and produce a search result based on user-defined criteria. Additionally, the Document Manager allows you to perform any of the file manipulation operations on a file or combination of files listed in the search result.

The MicroStation version of the Document Manager provides the following database functions:

❏ Database Search—a robust, easy to use searching tool. Users can search on text strings (whole and segmented) in the Description and Title Block fields, all fields on the General Info tab, single or multiple 'project' directories and subdirectories, Keywords, and an extensive selection of supplemental fields.

❏ Generate Document List—allows users to designate the current file by choosing from a list that displays the Filename, its Document #, and its Description.

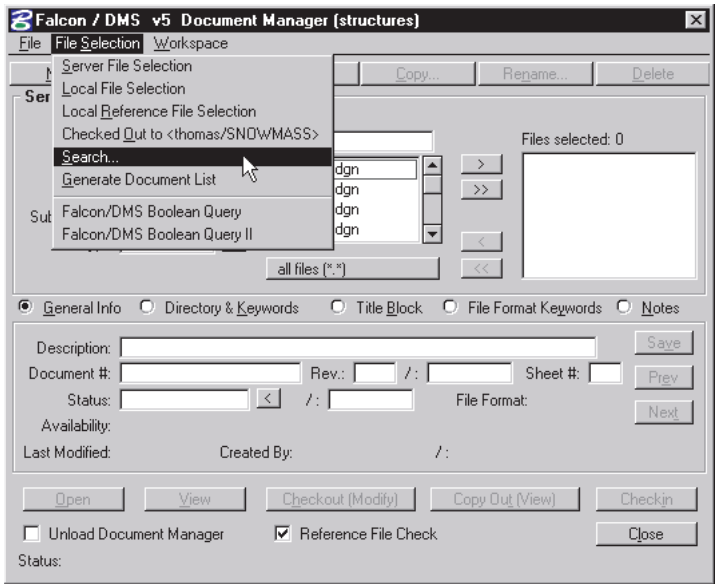
❏ Document Notes—this feature provides a easy and powerful way for users to itemize activity for any document.

The Database Search Command

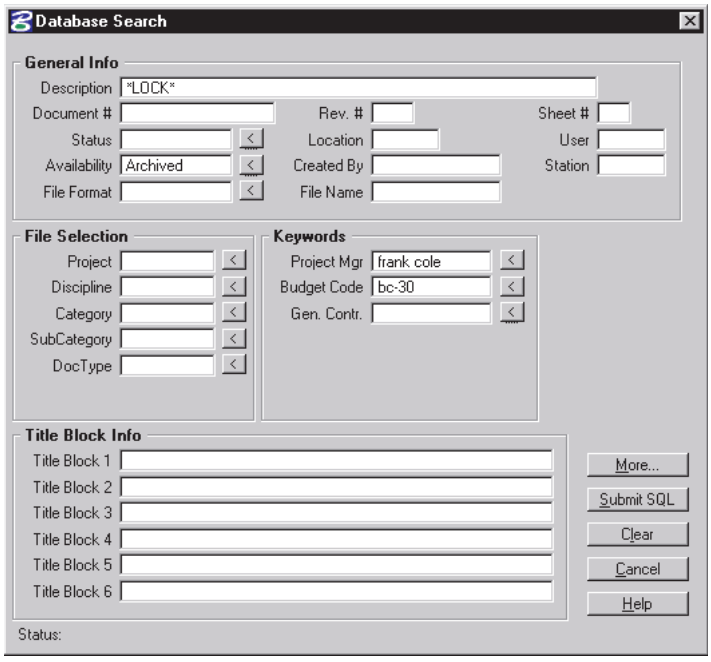
Falcon/DMS offers a robust searching. Users can search on text strings (whole and segmented) in the Description and Title Block fields, all fields on the General Info tab, single or multiple 'project' directories and subdirectories, Keywords, and an extensive selection of supplemental fields.

The Database Search Command

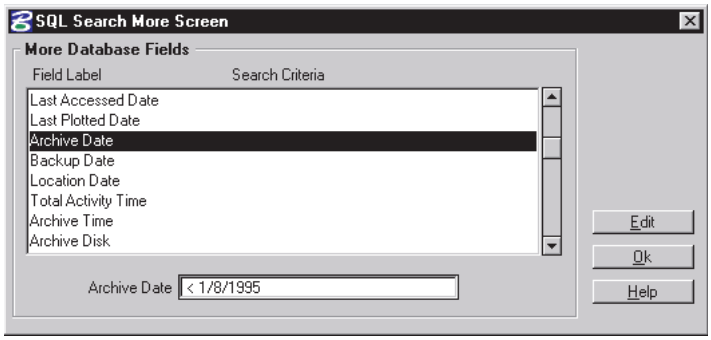
1. Choose File Selection > Database Search on the Document Manager.



2. From the Database Search dialog box, define the search criteria.



❑ On the main Database Form, above, the example search requests that Falcon/DMS search for all files that contain the text string 'LOCK' anywhere in the description, with a status of 'Archived', and with keywords of 'frank cole' and 'bc-30'.

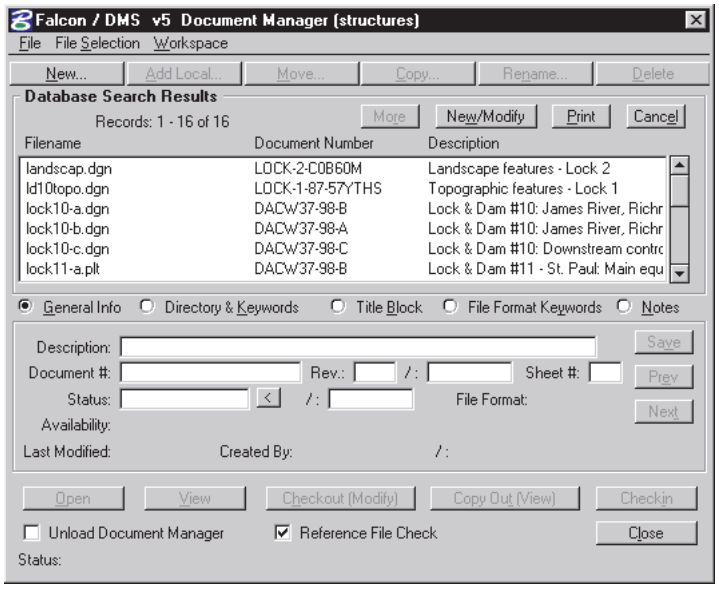


- ❏ For additional search criteria, press More to open the SQL Search More Screen. The example shows that the search is refined by further specifying all matching files that were archived before '1/8/1995'.

To define a value for a listed field, select the field and press Edit—or double-click the item—and fill in the input field. When finished, press OK.

To clear the form and define a new search, press Clear.

3. Press Submit.
4. When the process completes, the File Selection region on the Document Manager changes to Database Search Results. From this region you may select one or more files, then the operation you wish to perform.



- ❏ When the search returns more than fifty records, press More to view an expanded list; if necessary, you can continue to expand the list in increments of fifty items.
- ❏ To reopen the Database Search form to define a new criteria or modify the current criteria, press New/Modify.
- ❏ To generate an ASCII text file containing the search results, press Print. [You cannot print the search results directly from within MicroStation. Hardcopy of the search result is generated from the text file.]
- ❏ To exit the Database Search Results mode, press Cancel.

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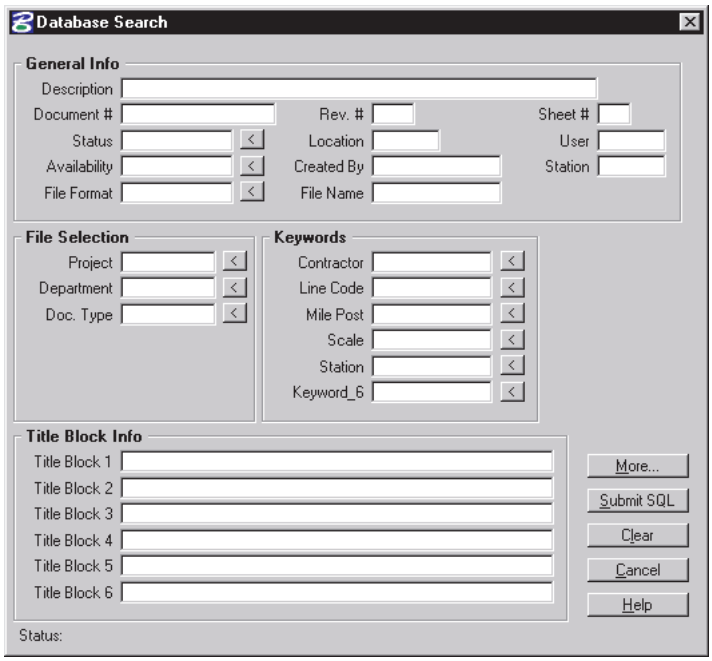
Database Keywords: Keywords are user-defined database attributes that are central to performing a database search. The primary benefit of keywords is the ability to use a defined structure for choosing your search criteria; predefined lists give you a window into how information is organized and assist in producing useful search results.

Falcon/DMS provides six system-level keyword categories and twenty file-format keyword categories for each file-format (igds [MicroStation], acad, word, excel, etc.). Use keywords to refine

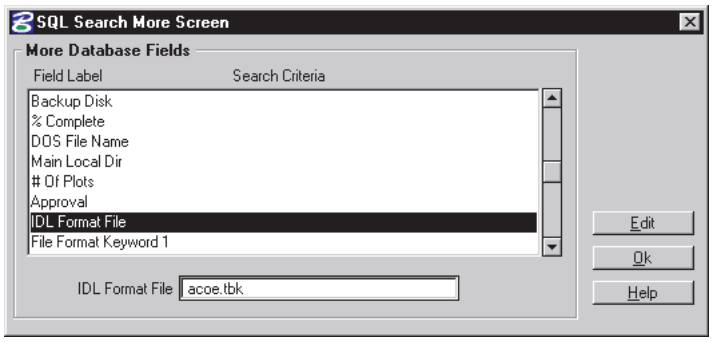
Where Do Keywords Come From? Keywords and the manner in which they are organized can be fully customized. Keywords are organized in categories. Once categories are created, the Falcon/DMS administrator builds a series of keyword tables, one for each category. The items contained within these tables are then selected from option menus appearing on the dialog boxes that handle the creating, adding, manipulation, and maintenance of documents and their database records.

The Database Search Dialog Box



GROUP	OPTION	DESCRIPTION
General Info:	Description	80 character document description.
	Document #	40 character document number.
	Status [<]	Click the [<] button to select from a Status Selection list box. Multiple selections can be made.
	Availability [<]	Click the [<] button to select from a Availability Selection list box. Multiple selections can be made.
	Location	Searches the location to which a file is checked.
	Revision #	5 character revision number.
	File Format [<]	Click the [<] button to select from a File Format Selection list box. Multiple selections can be made.
	Create By	Searches the user who created the document.
	File Name	80 character limit (defined by Falcon/DMS Administrator).
	Sheet #	3 character sheet number.
	User	Searches on user to whom a document is checked out.
	Station	Searches on the workstation to which a document is checked out
File Selection	Directory Level 1 [<]	Click the [<] button to select from the Project list box. Multiple selections can be made.
	Directory Level 2-5 [<]	Click the [<] button to select from a subdirectory list box. Multiple selections can be made.
Keywords	1-6 [System Level] [<]	Click the [<] button to select from a Keyword list box. Multiple selections can be made.
Title Block	1-6	Each field supports a 60 character title block entry. The keyin can be a whole or segmented text string. Wild cards are used for segmented text strings; for example *arrangement* searches for all occurences of the word 'arrangement' in the indicated title block field.

The Database Search Dialog Box (cont.):



GROUP	OPTION	DESCRIPTION
MORE		
	Date fields	Keywords 1-6 Creation Status % complete Revision Last Modified Last Accessed Last Plotted (PlotStation only) Archive Backup
	Time	Total Acitivity Archive
	Disk/Volume	Archive Backup
	Misc	% complete DOS File Name Main Local Dir. # of Plots Approval IDL Format File
	File Format Keyword	1-20

Using Comparison Operators: The Database Search command supports the following comparison operators for date and number fields: The format for criteria using comparison operators is —

[operator] space [value] space [and/or] space [operator] space [value]

<	e.g. < 1/1/96	[searches for events that occurred before 1/1/96]
>	e.g > 1/1/96	[searches for events that occurred after 1/1/96]
=	e.g. = 1/1/96	[searches for events that occurred on 1/1/96]
<=	e.g. <= 1/1/96	[searches for events that occurred before or on 1/1/96]
>=	e.g. >= 1/1/96	[searches for events that occur after or on 1/1/96]

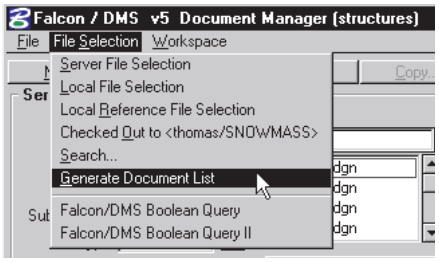
Other examples of 'and' / 'or' operator combinations are:

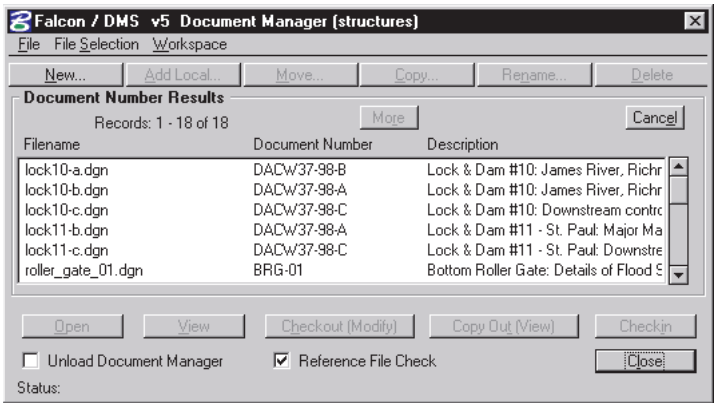
> 1/1/95 and < 1/1/96	[after 1/1/95 and before 1/1/96]
>= 1/1/95 and < 1/1/96	[after or on 1/1/95 and before 1/1/96]
1/1/95 or 1/1/96	[on 1/1/95 or on 1/1/96]
1/1/95 or > 1/1/96	[on 1/1/95 or after 1/1/96]

The Generate Document List Command

The Generate Document List option lists the contents of the current directory as Filename, Document #, and Description. To display the file list in this format, choose Database > Generate Document List.

- To select a single file from the Document List simply click on the required filename and choose a command; press Cancel to close the Document List and restore the standard directory and file list.
- To select multiple files from the Document List dialog box, use the <Shift>+click and <Ctrl>+click key combinations as you click on the required files and choose a command; press Cancel to close the Document List and restore the standard directory and file list.



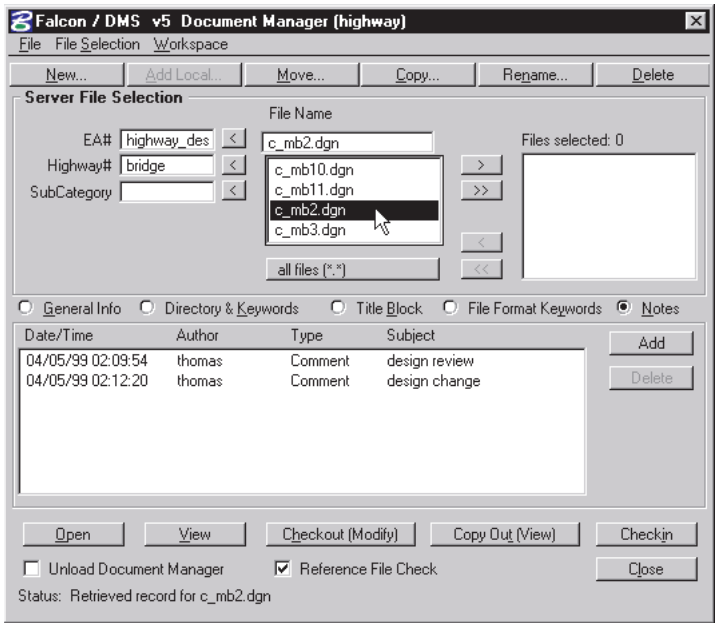


Document Notes

The Document Notes feature provides a way for users to itemize activity and communicate specific information for any document. The notes become part of each document's database record. Users can define a document note and display and edit that information from either the Windows or the MDL versions of the Document Manager.

To Display a Document's Notes:

1. From the Document Manager, select a file from the File Name list window.
2. Click the Document Notes radio button. If the selected record has associated notes, they are displayed on this tab.

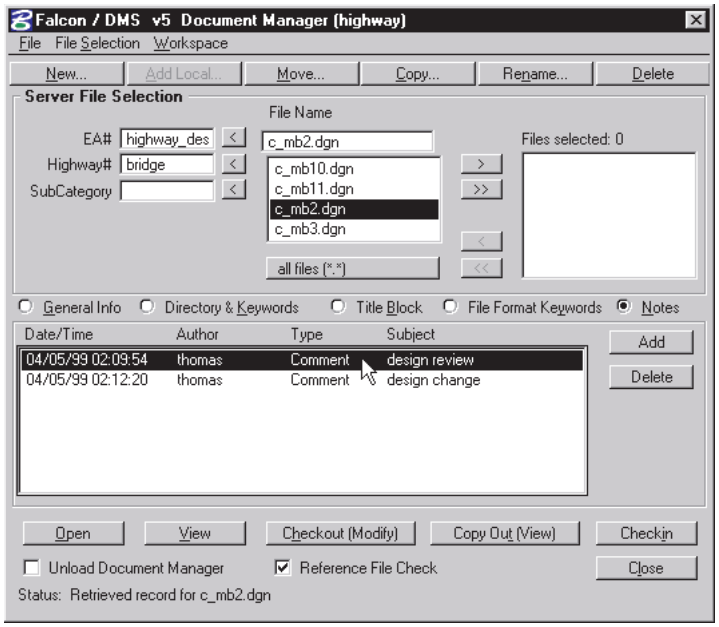


To Add a Document Note:

1. From the Document Manager, select a file from the File Name list window.
2. Click the Document Notes radio button.
3. Press Add. The Note dialog box opens.
4. Enter information in the Subject input field. Press <Tab> to shift to the Note input region. Enter information in the Note region. Press OK.

To Edit a Document Note:

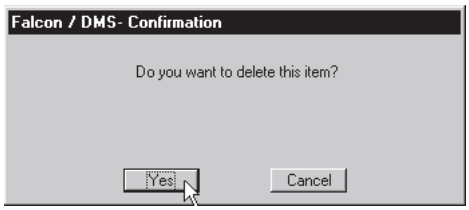
1. From the Document Manager, select a file from the File Name list window.
2. Click the Document Notes radio button.



3. Double-click on the Document Note that you wish to edit. The Note dialog box opens. You may modify the Subject and/or the attached note. When finished, press OK.

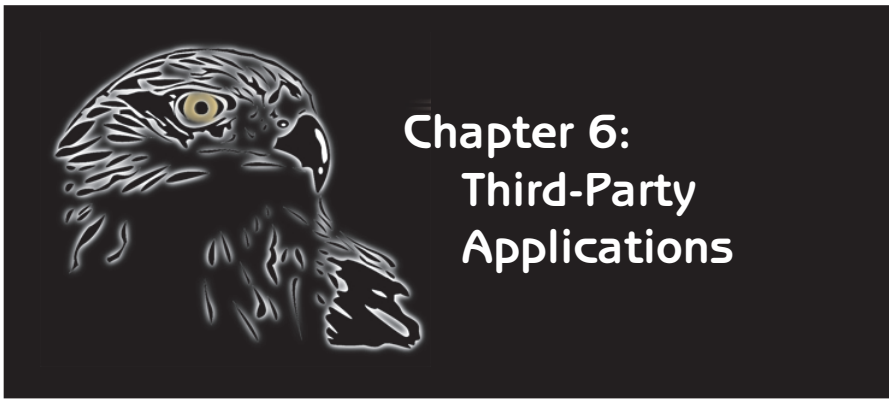
To Delete a Document Note:

1. From the Document Manager, select a file from the File Name list window.
2. Click the Document Notes radio button.
3. Select the note you wish to delete. Press Delete. Press Yes on the Falcon/DMS Confirmation box.



Falcon/DMS

The Document Manager (MDL)



As the availability of third-party applications for MicroStation has grown, so has the ability of Falcon/DMS to either provide specific interfaces for an application or to tailor the capabilities of standard commands to accommodate its particular requirements.

❏ **IGrds:** The IGrds interface lists all the IGrds working/.hal and plot files stored in the current project directory (*.hal and *plt.dgn, respectively). This list displays when a MicroStation design file is opened. From the list you select the required 'key' files; Falcon/DMS identifies and checks out all the additional files needed for the design session.

❏ **CAiCE**: Because a CAiCE project requires all the files found in the project directory, you will use the Falcon/DMS Checkout command to simply checkout all documents from that location. Upon completion of a CAiCE design session, you will use the Check In command to simply check in all documents found in the project's local working directory. As part of this check in transaction, Falcon/DMS adds any new files created during the design session to the database.

☞ ATTENTION
To enable the IGrds interface, set the control toggle on the Falcon/DMS pull-down menu to 'IGrds On'. However, be aware that when set to 'IGrds On', Falcon/DMS checks for IGrds associations each time you open a design file, adding processing time to this operation. When IGrds is not required, set the toggle to 'IGrds Off'.

✉ NOTE:
On the Windows Document Manager the only command that recognizes IGrds associations is Check in.

IGrds

IGrds, or Interactive Graphics Roadway Design System, is part of the AASHTO (American Association of State Highway and Transportation Officials) family of software products developed under the Cooperative Computer Software Development program. .

The Falcon/DMS interface provided for IGrds is designed to make the process of managing an IGrds data set as transparent as possible to the user. With Falcon/DMS, you need be concerned with only two categories of IGrds documents:

- ❏ the working (or '.hal') file/files
- ❏ the plot (*plt.dgn) file/files

Once the working/.hal and plot files, if any, are selected, Falcon/DMS insures that all IGrds files controlled by a working file are checked out and managed as a set.

The IGrds interface is available when you select a design file and invoke the Open and Check In commands.

Behind the scenes

With the IGrds On/Off control on the Falcon/DMS pull-down menu set to 'IGrds On', Falcon/DMS searches for IGrds associations when any design file is opened. (The Falcon/DMS menu is located on the MicroStation menu bar.)

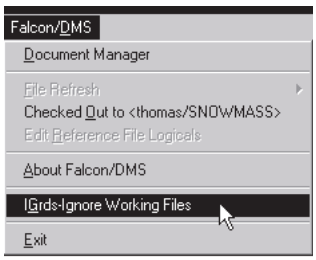
When you select a design file and invoke the Open command Falcon/DMS first checks out the design file to the local working directory and processes reference files, and then searches for IGrds associations in the current directory. When IGrds files are present, the IGrds Associations dialog box displays and lists all working/.hal and plot files located in this directory. After you select the desired working/.hal and plot files, Falcon/DMS checks out all associated style files (*.i0*), all files associated to the working/.hal file, and the selected plot files to the local working directory. As the final step in the process, the design file opens in MicroStation .

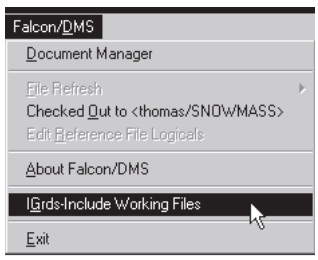
The IGrds interface also accounts for new files created during an IGrds design session. When you check in the main design file, Falcon/DMS can automatically create database records for and check in any new file generated during the design session.

The Falcon/DMS—IGrds interface

To enable/disable the Falcon/DMS—IGrds interface:

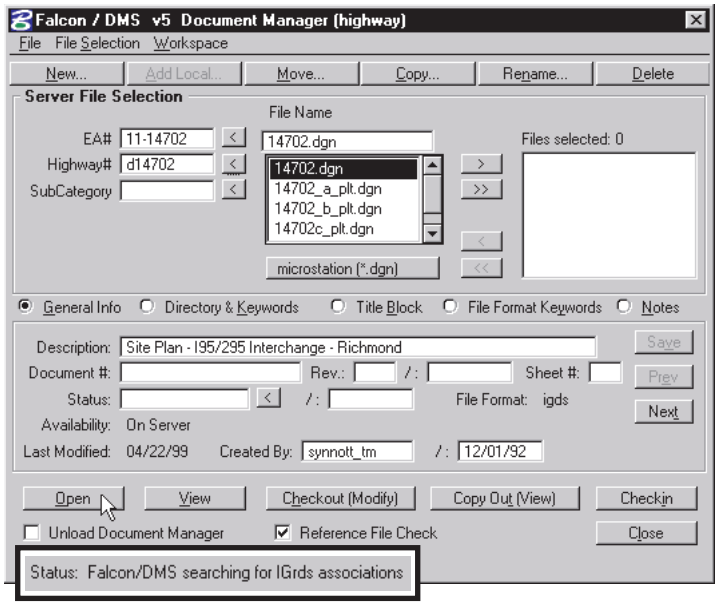
The IGrds interface control is found on the Falcon/DMS pulldown menu located on MicroStation's menu bar. To enable the control for IGrds documents, select Falcon/DMS > IGrds-Ignore Working Files; the control, a toggle, will then display the option IGrds-Include Working Files. To disable the control for IGrds documents, select Falcon/DMS > IGrds-Include Working Files; the control will then display the option IGrds-Ignore Working Files.





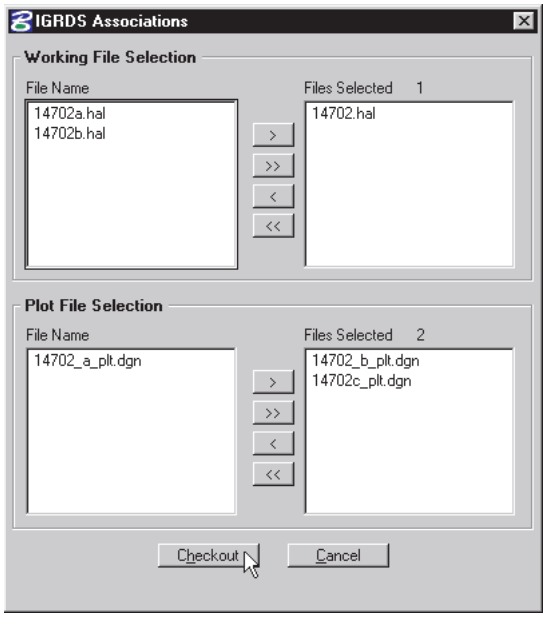
To open a design file and checkout IGrds associations:

1. From the Document Manager, choose the file you wish to open and select the Open command and process any reference files attached to the design file. At this point the Document Manager's status field indicates that Falcon/DMS is searching for IGrds associations.



Falcon/DMS searches the current directory for IGrds working/.hal files and files that match the string *plt.dgn. When the search returns a match the IGrds Associations dialog box opens.

2. From the IGrds Associations dialog box, select the working/.hal and the plot file or files you wish to checkout. Press Checkout.



Falcon/DMS checks out the associated style files (*.i0*), all files associated to the working/.hal file, and the selected plot files to the local working directory, and opens the design file.

✔ TIP

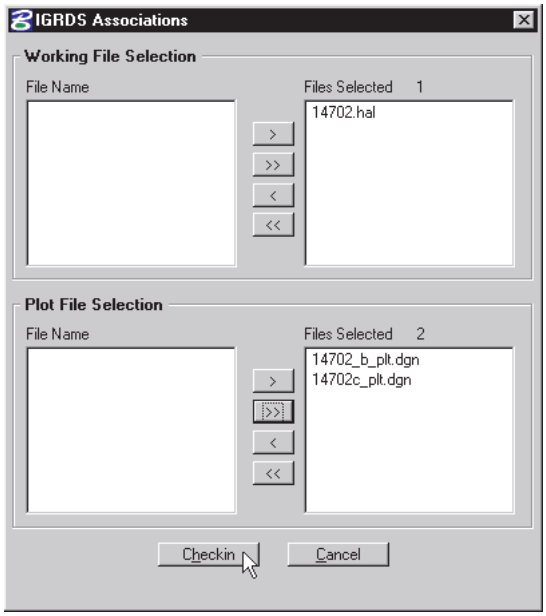
The IGrds Associations dialog box lists the IGrds files from which you will choose, so it is not necessary to display the full contents of the current directory. Because the IGrds function is triggered when a design file opens, setting the file list window's filter to 'microstation [*.dgn]' will shorten what is usually a long list of files.

To check in a design file and local IGrds files:

As part of standard check in the IGrds interface can also account for new files created during the IGrds design session. When you check in the main design file, Falcon/DMS automatically creates database records for and checks in any new file generated during the design session.

1. From the Document Manager, choose the file you wish to check in and select the Check In command. Remember that you can also check in files from the Checked Out to <user> dialog box.

   Falcon/DMS searches the design file's local working directory for IGrds working/.hal files and files that match the string *plt.dgn. When the search returns a match the IGrds Associations dialog box opens.



2. From the IGrds Associations dialog box, select the working/.hal and the plot file or files you wish to check in. Press Check In.

   Falcon/DMS first checks in the design file, then associated style files (*.i0*), all files associated to the working/.hal file, and the selected plot files server. It is at this point that Falcon/DMS also creates database records for and checks in any new files generated during the design session.

To checkout or check in a design file only:

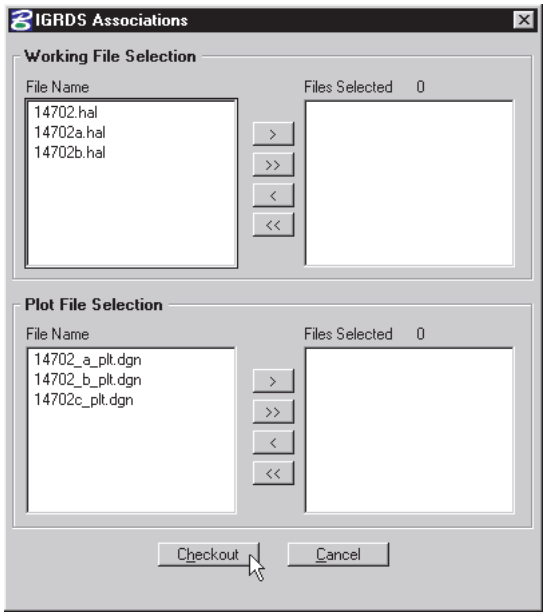
If you do not wish to checkout IGrds related files as you open a design file, you may either set the control located on the Falcon/DMS pull-down menu to 'IGrds Off', or simply not select any files on the IGrds Associations dialog box.

1. From the Document Manager, choose the file you wish to checkout or check in and select the appropriate command.

   Falcon/DMS searches the design file's local working directory for IGrds working/.hal files and files that match the string *plt.dgn. When the search returns a match the IGrds Associations dialog box opens.

2. On the IGrds Associations dialog box, DO NOT select any files from the Working File Selection or Plot File Selection regions.

   Finally, depending upon the direction of the transaction press either Check In or Checkout.



WARNING

It is strongly recommended that you turn off the IGrds interface before checking in any CAiCE files (MicroStation menu bar > Falcon/DMS > 'IGrds Off'). With the IGrds interface enabled, Falcon/DMS automatically searches for IGrds associations causing processing time to increase significantly.

ATTENTION

In order to check in a set of CAiCE files containing files created during the current design session, or in other words, files that do not yet have database records, you must select the data set from a Local File Selection. Otherwise, Falcon/DMS simply cannot see that new files are available for selection.

CAiCE

CAiCE (Computer Aided Civil Engineering & Surveying) software includes survey data processing, coordinate geometry, site design, earthworks, road design, quantities tabulation, automated plans production and other application areas.

Because a CAiCE project requires all the files found in the project directory, you will use the standard Falcon/DMS Checkout command to simply checkout all documents from that location. Upon completion of a CAiCE design session, you will use the Check in command to simply check in all documents found in the project's local working directory. As part of this check in transaction, Falcon/DMS can automatically create database records for all new files generated during the design session.

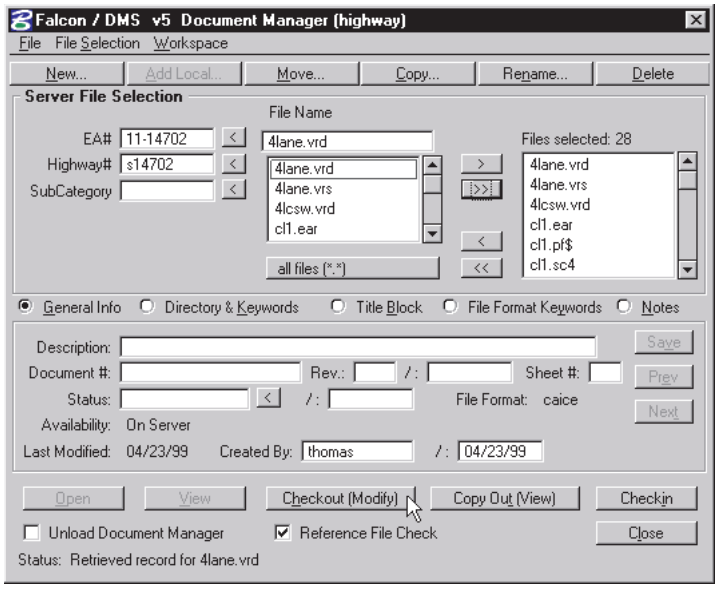
With CAiCE, the only departure from the standard check in procedure (and this applies only when new CAiCE files have been created) is that you must set File Selection to Local File Selection and check in the contents of the local project directory. The reason for this is that when CAiCE generates new files they are placed in the local project directory on your computer's hard disk. The only way to see these files is to set the Document Manager's File Selection mode to Local.

When no new CAiCE files are created you may check in from the Server File Selection or from the Checked Out to <user> dialog box.

Using Falcon/DMS to manage a CAiCE data set

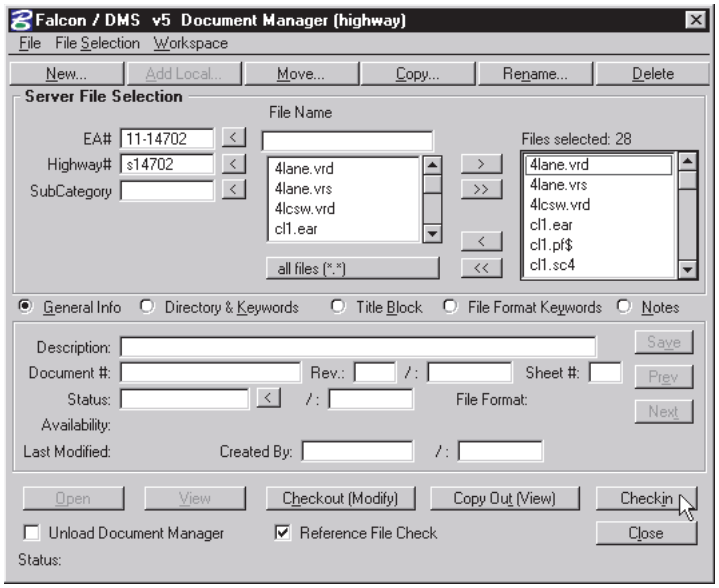
To checkout a CAiCE data set:

1. From the Document Manager, press **>>** to select all the files in the current CAiCE project.
2. Press Checkout.



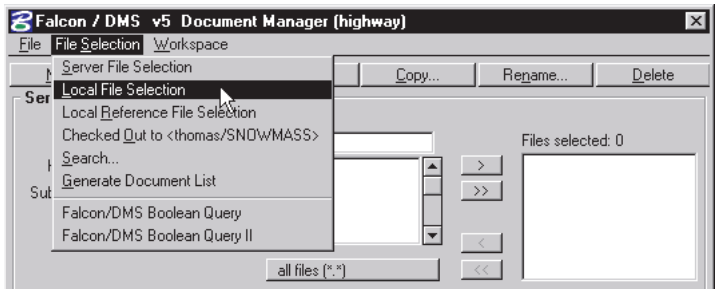
To check in a CAiCE data set:

1. From the Document Manager, press **>>** to select all the files in the current CAiCE project.
2. Press Check In.

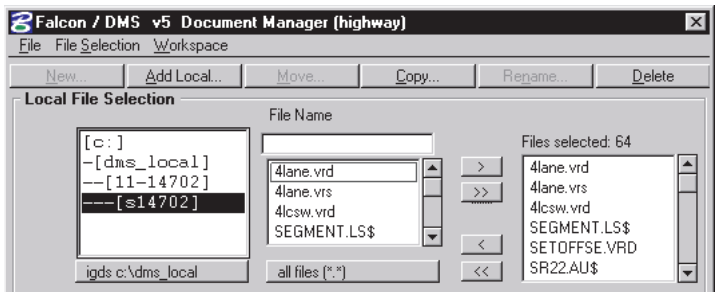


To check in a CAiCE data set that contains newly generated files [without database records]:

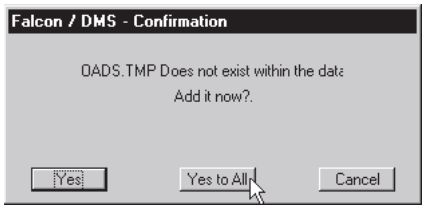
1. From the Document Manager, select File > Selection > Local File Selection.

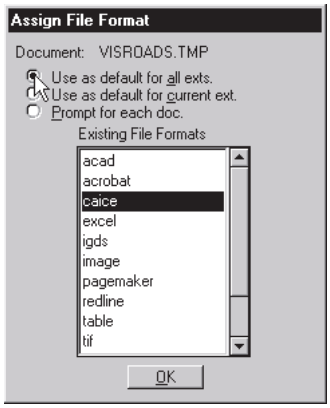


2. From the Local File Selection region, navigate to the CAiCE project directory. Press **>>** to select all the files in the current CAiCE project. This selection will contain files with database records and the new files without database records. Press Check In.



3. When Falcon/DMS encounters a file without a database record a confirmation box appears. The procedure you will follow for CAiCE is to press Yes to All.



4. Because Falcon/DMS requires a file format for every document in the database the Assign File Format dialog box appears. From the 'Existing File Formats' list select 'caice' and enable the 'Use as default for all exts.' radio button. This enables Falcon/DMS to assign the 'caice' file format to all the files it process, regardless of each file's extension.

   Press OK to process the list of new files.