

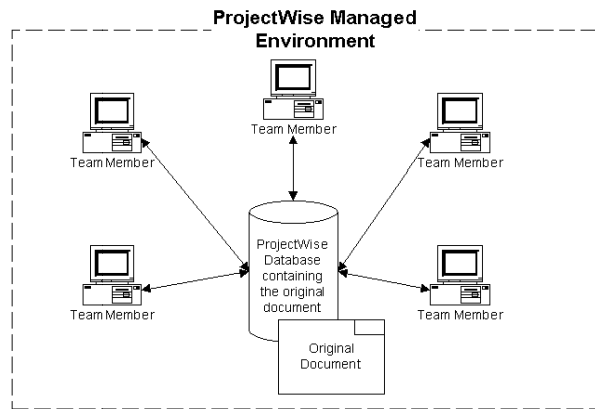
ProjectWise for MoDOT



Section 1

The ProjectWise Managed Environment

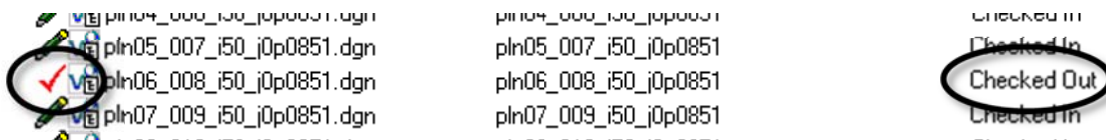
ProjectWise is the document management system that is mainly used for document storage for highway and bridge plans at MoDOT. ProjectWise allows users to access documents from the single database. During projects involving a number of sites, a single instance of a document is available to every member of the project team.



The document is stored in a location accessible to all team members. It can be viewed by all users, but checked out by only one user at any time.

Check out and check in

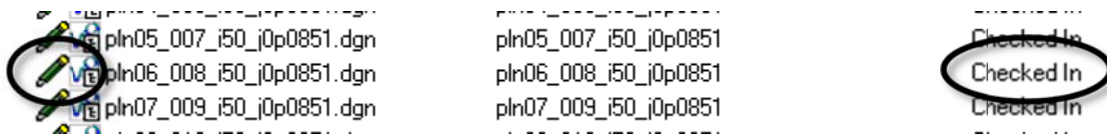
When a team member wants to edit a document, they can check it out simply by opening the document within the ProjectWise Explorer. When they check out a document, it is placed into their local working directory located on their hard-drive and the database record is marked accordingly.



The database has been marked with a red checkmark showing that the document has been checked out.

This places the document at the full disposal of that team member. While the drawing is checked out, other team members can view the document but cannot make any changes to it.

At the end of the workday, when another team member needs access to the file, or when all work is completed, the document is checked in. This makes it available for edit by other team members.



A user can always refresh the server's copy so that other team members can view or reference the latest version. See Chapter 5 *Updating documents in ProjectWise without checking them in*.

Controlled Access

ProjectWise is a controlled access system. Project participants are assigned rights to various documents, and these rights can change at various stages throughout the project.

There are five broad levels of access when using the ProjectWise Explorer.

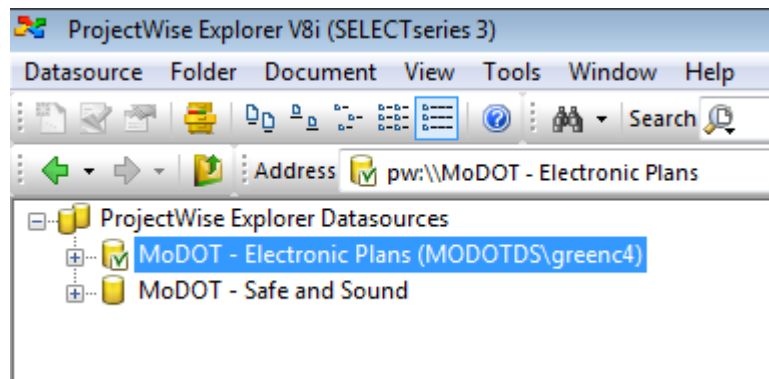
- No access: The folder structure or documents cannot be seen at all.
- Viewing access: The folder structure or document file names and properties can be seen in ProjectWise, but document content cannot be viewed.
- Read access: A document may be opened read-only. No changes can be made to the document.
- Commenting or redlining access: A document can be opened read-only. Comments can be made about the document, but no changes can be made to the content.
- Editing access: A document can be opened and edited.

User settings and access controls are an administrative function of ProjectWise. The administrator will define these settings in advance.

Logging into Projectwise Explorer

ProjectWise allows the use of Windows domain user names and passwords. Here at MoDOT, the single sign on is enabled and configured for a datasource. Therefore it allows Windows domain users to log in to ProjectWise without entering their Windows domain user name and password after the first time. They simply double click on the name of the datasource.

When you log in, ProjectWise verifies your user name and password and determines your access rights. These access rights depend on your user group assignment, the user settings assigned to you by the administrator, the security on a particular folder or document, and possibly the state of a workflow to which a document is currently assigned.



NOTE: As in most Windows applications, there are several ways to issue a command or perform an action. If in doubt, you can always check the Help file or press F1.

Working Directories











ProjectWise copies the files that you work on to your local hard drive. This area is called your working directory. It contains temporary copies of the document files that you checked or copied out from a ProjectWise server. Applications launched from ProjectWise Explorer will use these files automatically.

WARNING: Never directly delete the directories or files created by ProjectWise from Windows Explorer. Deleting these folders or files can cause data loss. To maintain your working directory, use the organizer tool or the check in and purge commands.

IMPORTANT: Always check documents out from ProjectWise. Working on local copies may result in data loss, as others may make changes to the document within ProjectWise and those changes will not be added to your local copy.

The Datasource Tree

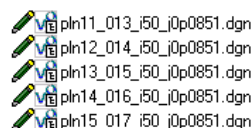
Icons are as follows in the datasource tree.

-  The ProjectWise datasources header. All datasources are listed under this icon.
-  An individual datasource that you are logged into.
-  An active, open datasource. This datasource is the one you are currently working with. There can only be one of these.
-  A datasource that is open but not active. You are logged into this datasource, but the focus is on another datasource.
-  An unavailable datasource.
-  A folder or sub-folder. You will not see folders that you do not have view access to.
-  Saved Searches root level node. There may be one or more search folders below this node.
-  Saved Searches global folder. Only the datasource administrator can amend items in this folder.
-  Saved searches personal folder. Each user has their own personal folder. The ProjectWise administrator may or may not have enabled this feature.
-  Indicates that a personal folder contains a saved search. The ProjectWise administrator may or may not have enabled this feature.

The Documents Window

When you select a folder, its contents are displayed in the documents window. If you do not have the necessary permissions to a document or sub-folder, the document or sub-folder will not appear in the documents window.

Each document has two icons associated with it. The first icon indicates the general permissions and current status for the document. The second icon indicates the document's type and its associated application.



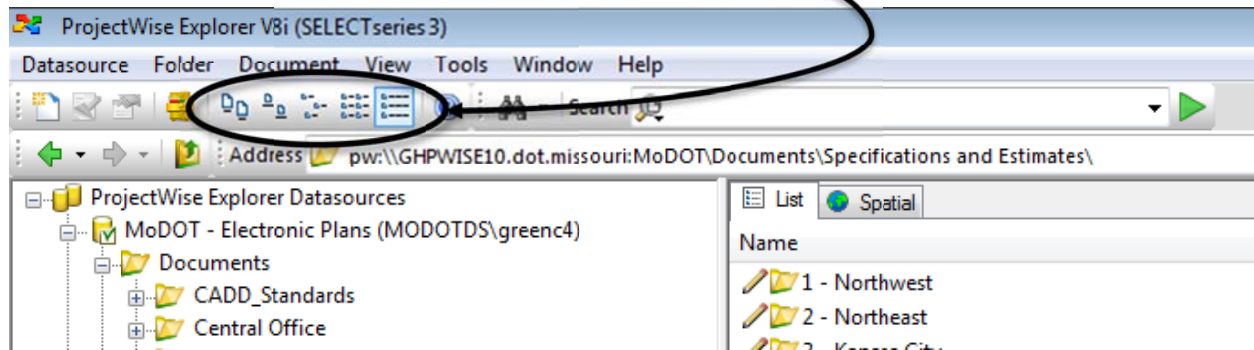
An example of the two icons described above.

Customizing ProjectWise Explorer

You can change the ProjectWise Explorer window to suit your preferences. This makes it easy to manage documents and to view and edit their properties. Each pane is resizable. When the details view is selected, the columns in the documents window are customizable as well. You can also create your own tool bars to hold tools that you use frequently. As with any Windows application, you can maximize, minimize or resize the window, as well as move the bars between the datasource tree, the documents window and the preview pane.

Changing the Documents window view type

You change the way documents are shown in the document pane by selecting different view types, just as you can in Windows Explorer.



This button will invoke the **Thumbnail Image** on the Standard tool bar, which displays thumbnail images for the documents in the selected folder.



This button will invoke the **Large** application icons on the Standard tool bar in horizontal rows, without details.



This button will invoke the **Small** application icons on the Standard tool bar in horizontal rows, without details.



This button will invoke the **List** on the Standard tool bar, which will show the Small application icons in vertical rows, without details.



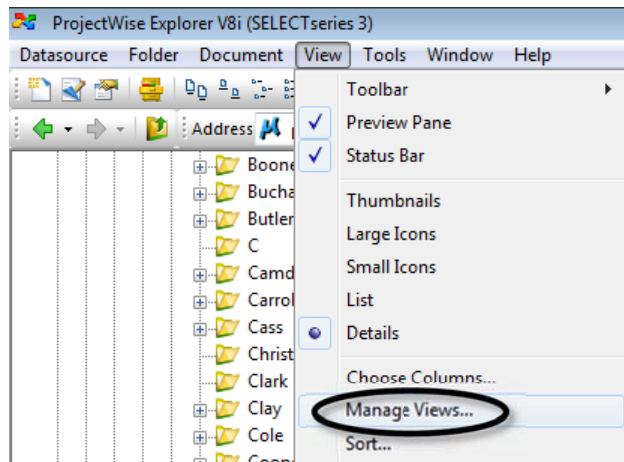
This button will invoke the **Details** on the Standard tool bar, which will show the Small application icons in vertical columns, including Details.

Showing additional information in the details view

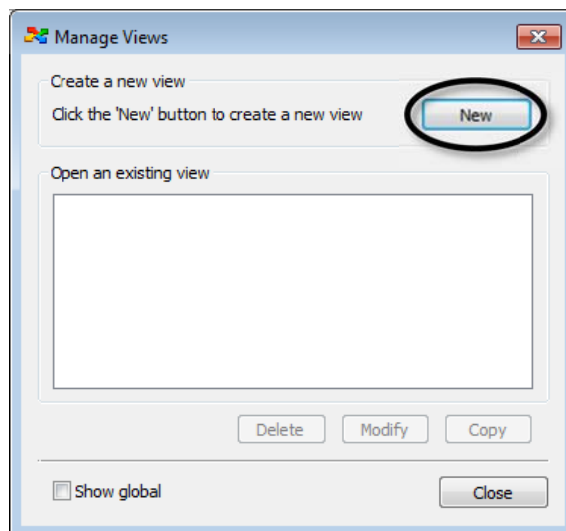
An environment is a collection of custom document attributes that can be defined by the ProjectWise administrator. The environment options in the Managed Views lets you add columns to view this custom information for documents assigned to a specific environment.

To create a **Managed View**:

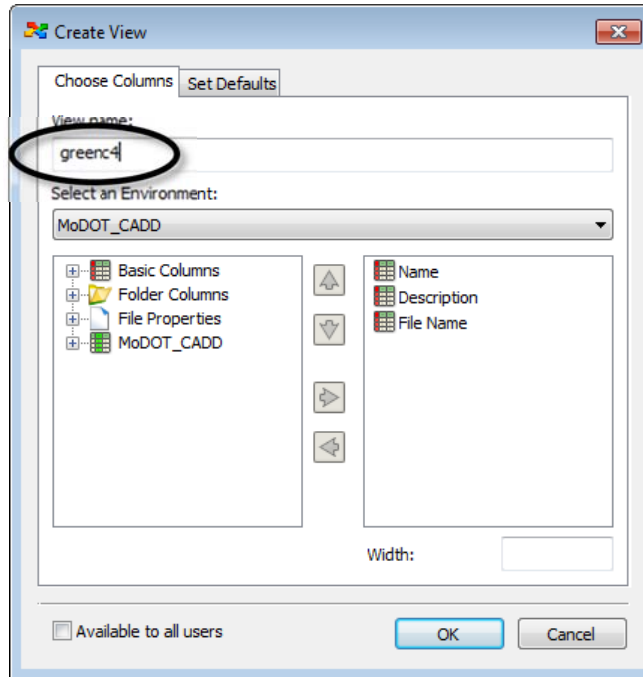
1. Select *View>Manage Views* from the ProjectWise Explorer main menu bar.



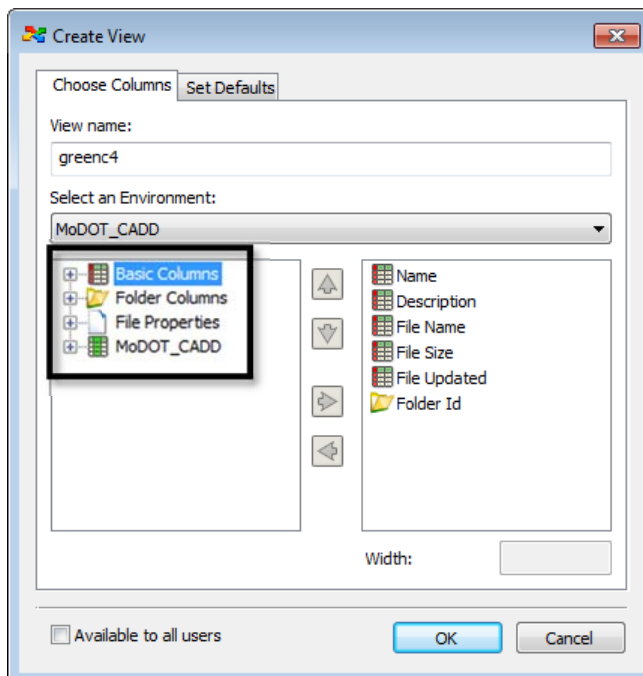
2. Click *New*.



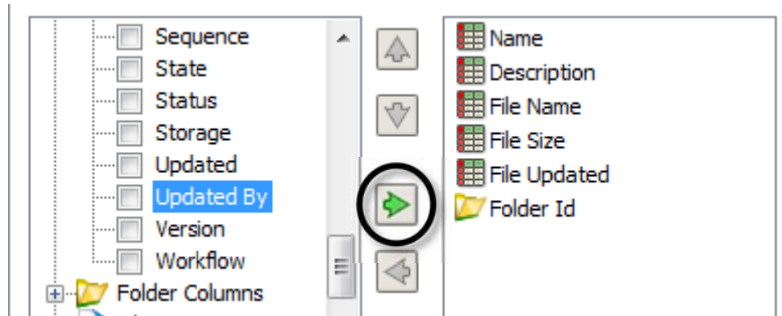
3. The *Create View* dialog box will open. In here, enter the desired name of the *View name* area. (MoDOT is the default view)



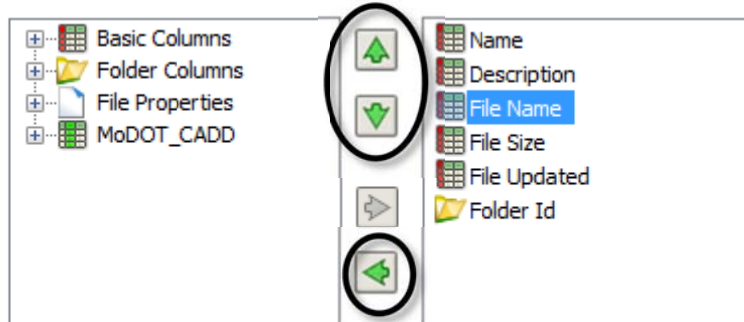
4. In the *Choose Columns* tab, expand one of options by clicking the plus sign.



To add a column, double click the column name or highlight the column name and then click the green arrow pointing to the Show Columns of pane.



To change the order in which the columns will be displayed, use the green up and down arrows. To remove a column, highlight it in the right pane and click the arrow pointing to the Available Columns pane or drag and drop back to the left pane.

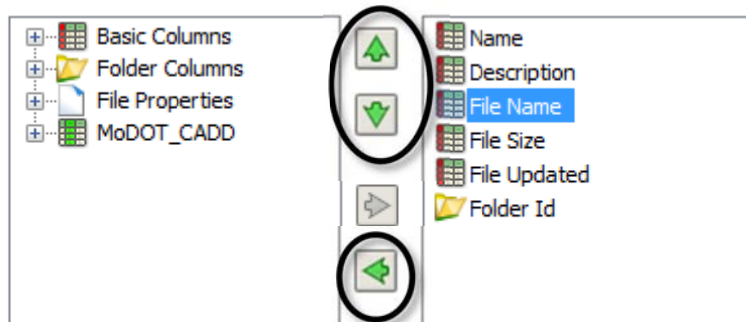


Once established, you can resize the columns by dragging the column headers' edges.

TIP: These defined views are stored locally on your system and will not be available to you on other systems. If you work on more than one system, you must have views defined on each.

5. Add the columns of your choice.
6. When the desired columns have been added, click the *OK* button. Finally *Close* out of the Manage View dialog.

To change the order in which the columns will be displayed, use the green up and down arrows. To remove a column, highlight it in the right pane and click the arrow pointing to the Available Columns pane or drag and drop back to the left pane.

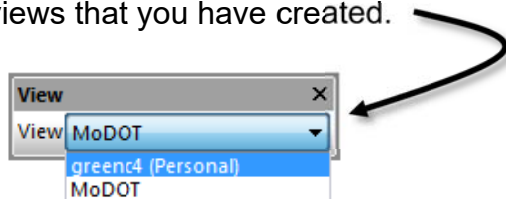


Once established, you can resize the columns by dragging the column headers' edges.

TIP: These defined views are stored locally on your system and will not be available to you on other systems. If you work on more than one system, you must have views defined on each.

IMPORTANT: Here at MoDOT there will be a default view containing the following columns; Name, Out to, State, File Name, Application, File Size, Folder ID, County Name, Route No, Workflow, Folder GUID, Folder Name, and Folder Manager. You choose to use this or create a view of your own.

Clicking the pull down allows you to choose document views that have been predefined by an administrator or custom views that you have created.



Sorting documents in the documents window

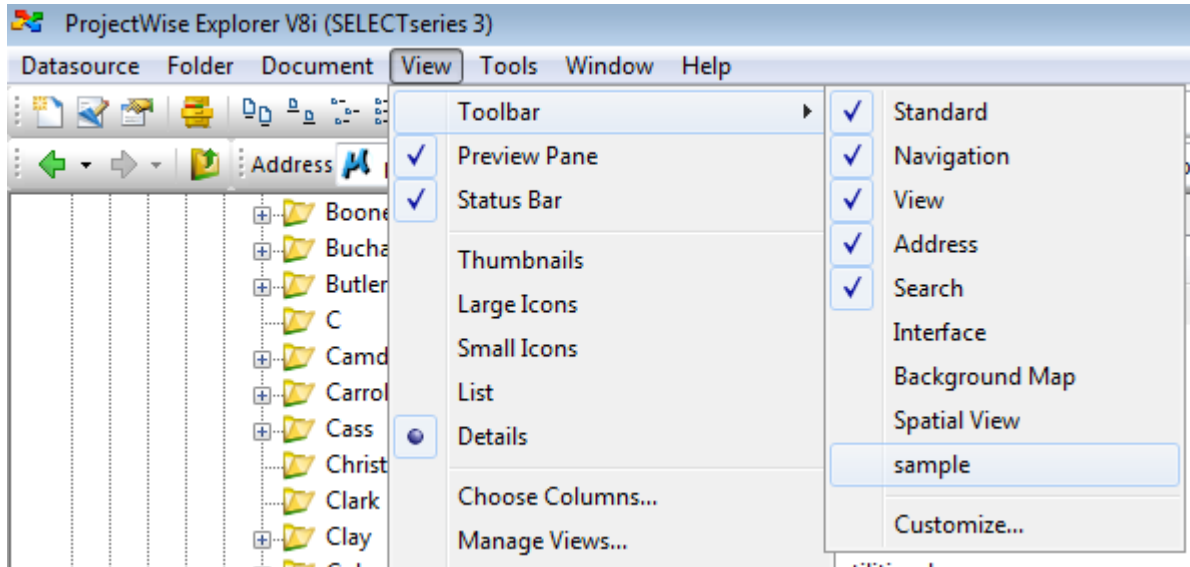
You can sort documents by an individual attribute by *clicking on the column heading*. *Clicking a second time* will reverse the order.



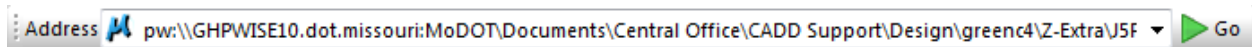
There is also a menu option that allows you to sort the document list based on as many of the displayed columns as you like. For instance, first by document name in ascending order and then by document version in descending order.

Tool and status bar options

You can toggle the display of the tool bars and the status bar by clicking the View pull down and selecting the Toolbar option. This will show the options.



Address toggles the display of the Address bar, which displays the full path to your location in the datasource, including the selected folder and document.

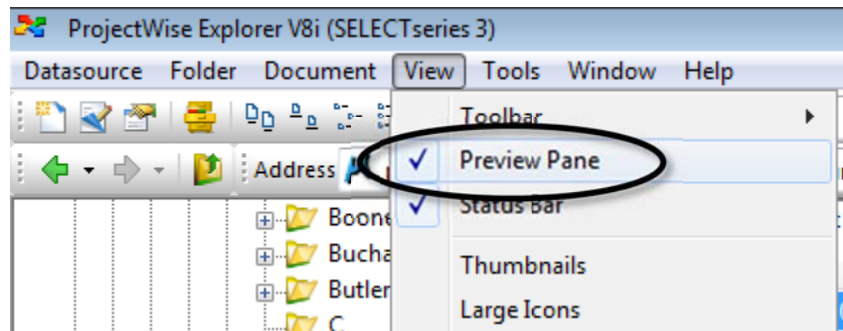


TIP: Text in the address bar can be cut and pasted into E-mail and sent to another ProjectWise user. They can cut and paste the address into their own ProjectWise Explorer address bar.

Using the preview pane

The preview pane gives you attribute information about a file or folder without having to open the Properties dialog box.

Selecting the *View* pull down will show the *Preview Pane* option. This will toggle the *Preview Pane* on/off.



When a folder is selected in the datasource tree, *Folder Properties* and *Access Control* are displayed.

Folder Properties		Access Control	
Property name	Property value	Property name	Property value
Folder Name	Plan	Folder Description	
Environment Name	MoDOT_CADD	Environment Description	MoDOT_CADD
Workspace Profile Name		Workspace Profile Description	
Storage	CO CADD Classroom	Owner	pwadmin
Created By	pwadmin	Creation Time	2/7/2008 7:40:48 AM
Updated By	pwadmin	Update Time	9/23/2009 10:12:08 AM
Workflow		State	
Document Count	8	Disk Usage	981.50 KB (1,005,056 bytes)
Parent Folder	Central Office\CADD Support\...		

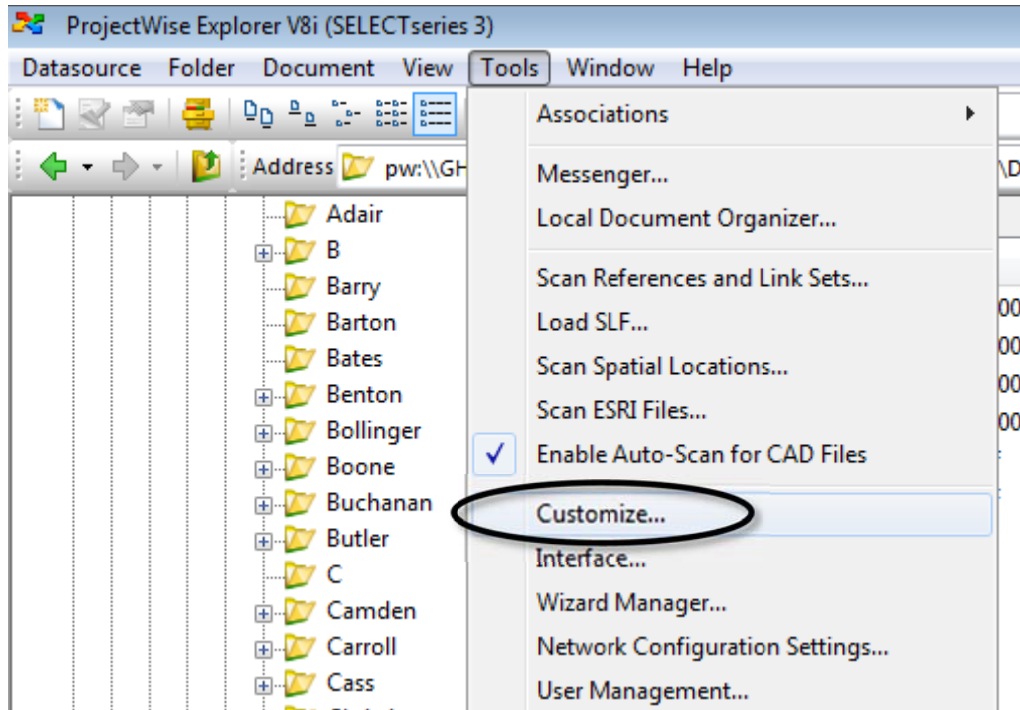
When a document is selected, *Document Properties* and *Photo Review* are also displayed. Switch between document and folder properties by clicking on the appropriate tab.

Document Properties		Folder Properties		Photo Preview		Access Control	
Property name	Property value	Property name	Property value	Property name	Property value	Property name	Property value
Name	004_PP_J5P0243_i100.dgn	Description	004_PP_J5P0243_i100.dgn				
Folder Name	Plan	Folder Description					
Environment	MoDOT_CADD	Storage	CO CADD Classroom				
File Name	004_PP_J5P0243_i100.dgn	File Size	123.50 KB (126,464 bytes)				
Workflow		State					
Created By	pwadmin	Created	2/6/2008 8:22:00 AM				
Updated By	pwadmin	Updated	2/7/2008 11:19:11 AM				
File Updated By	greenc4	File Updated	4/26/2010 1:14:20 PM				
Status	Checked In	Node					
Version		Sequence	0				
File Revision		Conflicts	False				
Local File Revision		Local File Refreshed					
Local File Directory		Local Status					
Shareable		MIME Type	image/vnd.dgn;ver=8				

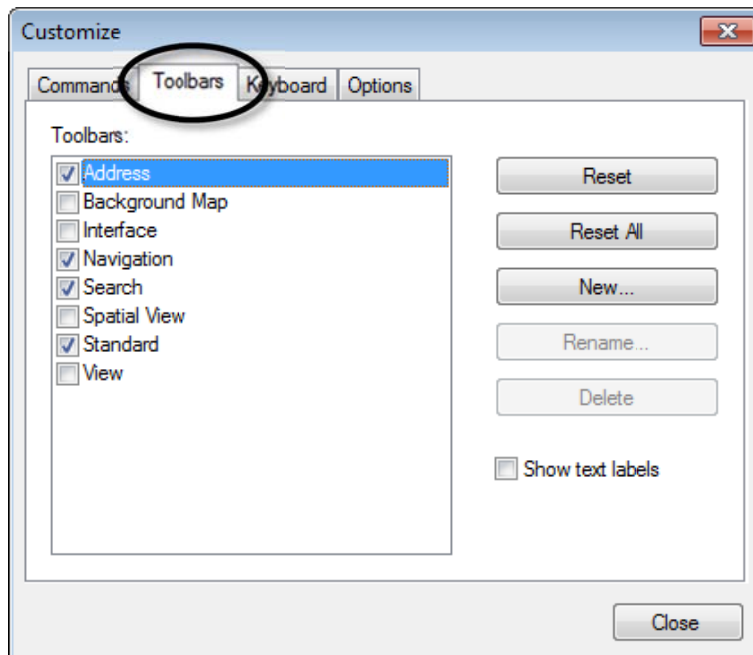
Custom tool bars

You can create additional tool bars for easy access to the commands that you use often.

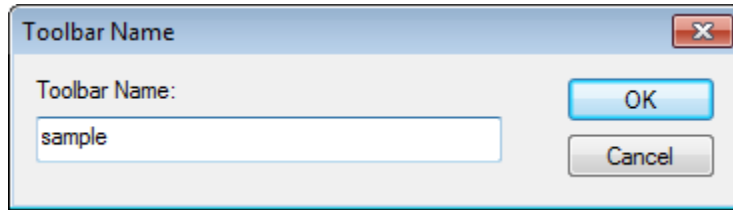
Select the *Tools* pull down and then *Customize*.



This will open the *Customize* dialog box and allow you to select the *Toolbars* tab.

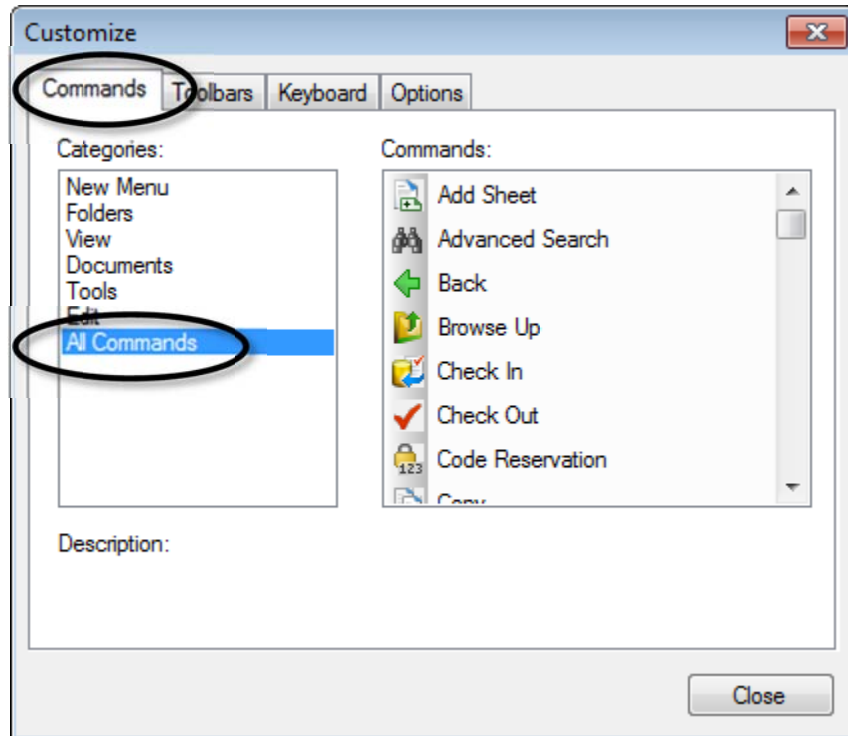


Click the *New* button and add a toolbar name in the input field.



This will bring up an empty tool  bar.

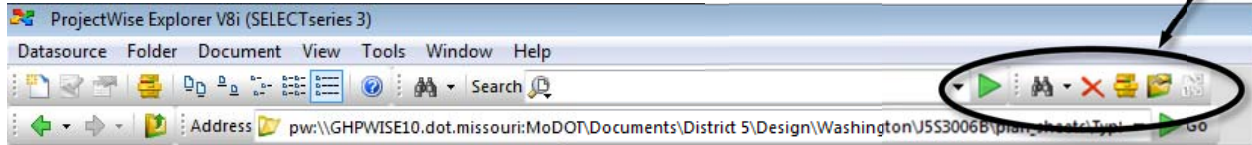
Also, you will have the *Customize* dialog box still out, select the *Commands* tab and click the *All Commands* category.



Now you can scroll down the list of commands and choose one. Click on the desired command(s), drag and drop it on the new tool bar. This will add the tool to the tool box.



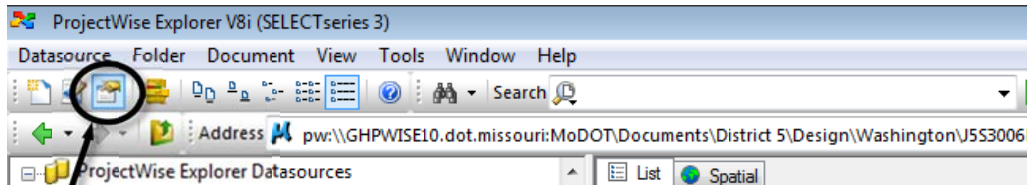
Once you have added as many commands as you want you can dock the tool bar at the top of the ProjectWise Explorer.



Once a tool bar is created you can edit it by opening the customize dialog box and adding or removing commands.

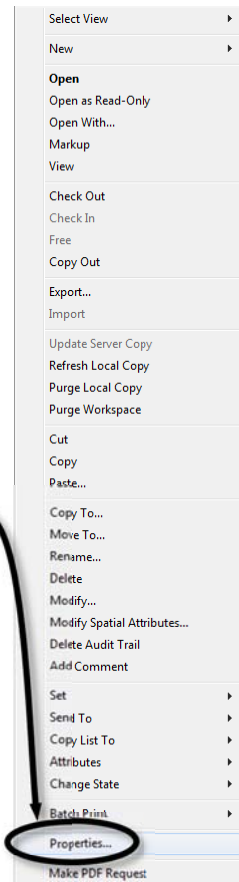
Document Properties

You can access a document's properties in a couple ways; click on the *Document Properties* icon or right click on the document and choose the *Properties* option.



Document Properties by icon

Document Properties by right clicking over the document



TIP: You can select the document and press the space bar to open the Properties dialog box.

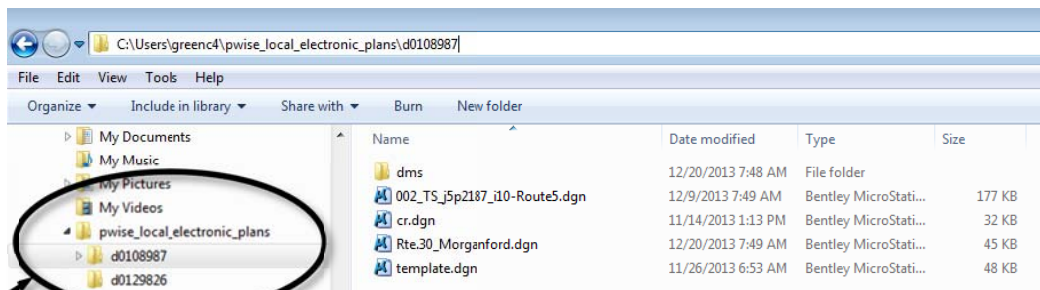
Section 2

Working with folders

Folders are tools for organizing. They are arranged in a hierarchical structure. A parent folder can have an unlimited number of child sub-folders, and each child sub-folder can have an unlimited number of its own child sub-folders.

While Windows users will find ProjectWise folders similar to Windows folders, ProjectWise folders have additional properties and features. Of particular interest:

- The files contained in folders and sub-folders can reside in different physical locations. From a user's perspective, the physical location of the files is of little consequence. Navigating ProjectWise folders is accomplished at a logical level and is not directly related to where contents are physically stored.
- The logical structure, which is displayed in ProjectWise Explorer, is not implemented the same way as the physical storage area structure. You can get an idea of how the physical storage locations are structured by looking at the contents of your working directory in Windows Explorer.



Physical storage for your ProjectWise files as seen through Windows Explorer

The physical storage of the files that YOU have opened or are working on will be located under the folder named *pwise_local_electronic_plans*.

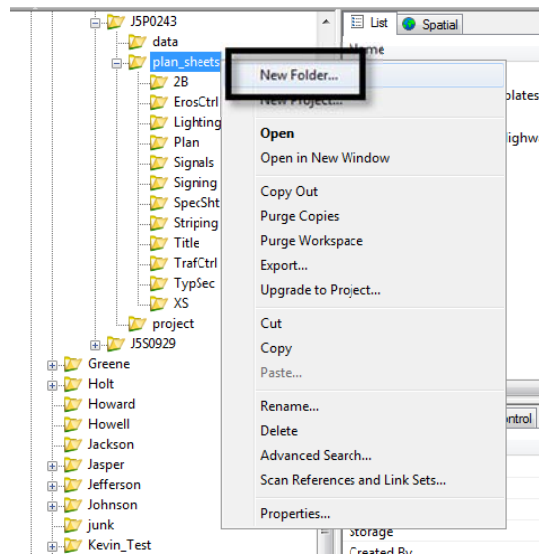
Warning: Only access the files in your working directory through **ProjectWise** otherwise you risk data loss!

NOTE: MoDOT users are able to create and rename folders in ProjectWise, given they have the proper permissions under the parent folder. Users are **NOT** able to **DELETE** or **MOVE** folders in ProjectWise though. This is due to restoration of folders on the server end. If a folder or set of folders need to be deleted or moved to another location, contact CADD Support.

Creating Folders in ProjectWise

There are a few steps when creating a new folder in ProjectWise. Keep in mind that you must have write access to the parent folder that you are creating the new folder under.

- **Right click** over the parent folder and select **New Folder**.



- Fill out the dialog box as needed to create the folder. You should only need to fill in the **Name** and **Description** (optional) fields. The rest of the fields can be left alone. Click **OK** when finished. The new folder will inherit the same permissions as the parent folder it was created under.

 A screenshot of the 'Create Folder' dialog box in ProjectWise. The dialog has a 'General' tab. The 'Name' field contains 'Culvert Sections' and the 'Description' field contains 'Optional'. These two fields are enclosed in a black rectangular box. Below these fields, the 'Parent' is set to 'Central Office\CADD Support\Des' with a 'Change...' button. The 'Environment' is set to 'MoDOT_CADD' in a dropdown menu, with a 'Description' field below it containing 'MoDOT_CADD'. The 'Storage' is set to 'CO CADD Classroom' in a dropdown menu, with a '...' button to its right. The 'Owner' is set to 'MODOTDS\greenc4' with a 'Change...' button. At the bottom of the dialog are 'OK', 'Cancel', and 'Add' buttons.

Folder Properties

The properties associated with folders vary based on whether they are parent folders or subfolders, when they were created, who created them, workspace, securities, and states among many other useful items.

General tab

This tab controls folder name, description, location and ownership, as well as other properties.

Name is the name assigned to the folder.

Description allows the user to place a description of the folder in this input field.

Parent is the folder that contains this folder. If the Parent field is left blank, then the folder is at the root of the Documents folder tree in ProjectWise Explorer.

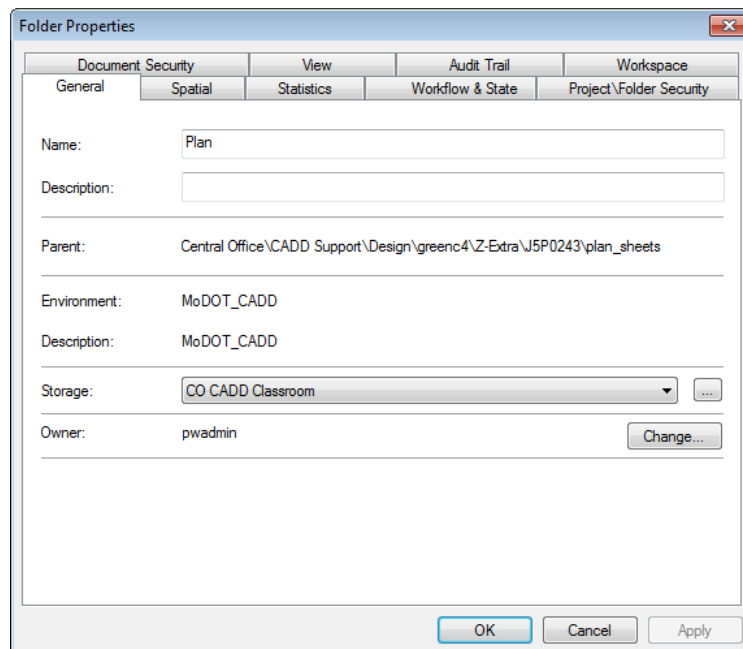
Environment is the environment assigned to the folder.

Description is the environment's description.

Storage is the default storage location for new documents created in this folder.

Owner displays the user who is considered responsible for the management of the folder. By default, the name of the user who created the folder will appear in this field.

Change will allow you to assign an owner to a folder.



Spatial tab

This tab controls what spatial data is applied to the folder, such as an aerial background map, coordinate system and source. MoDOT currently doesn't have spatial database setup for production. This may be done at a later time, if needed.

The screenshot shows the 'Folder Properties' dialog box with the 'Spatial' tab selected. The dialog has a title bar with a close button. Below the title bar are four tabs: 'Document Security', 'View', 'Audit Trail', and 'Workspace'. Under 'View', there are sub-tabs: 'General', 'Spatial', 'Statistics', 'Workflow & State', and 'Project\Folder Security'. The 'Spatial' sub-tab is active. The main area is divided into two panes. The left pane is labeled 'Geometry' and contains three buttons: 'Edit...', 'Load SLF...', and 'Calculate'. Below these are four input fields for 'Lower Left' and 'Upper Right' coordinates, each with 'X' and 'Y' labels and a value of '0.0'. The right pane is labeled 'Spatial Location' and contains a 'Source' dropdown menu set to 'None', a 'Modified' text input field, and a 'Coordinate System' dropdown menu. Below this is a 'Background Map' dropdown menu set to 'Use parent map'. At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons.

Statistics tab

This tab displays creation and modification information about the folder, such as the person who created it, the date and time created, the last person to update its properties and when, and the number of documents in it, along with other information.

Created By lists the user's name that created the folder.

Created displays the date and time that the file was created.

Updated By lists the user's name that last updated the folder.

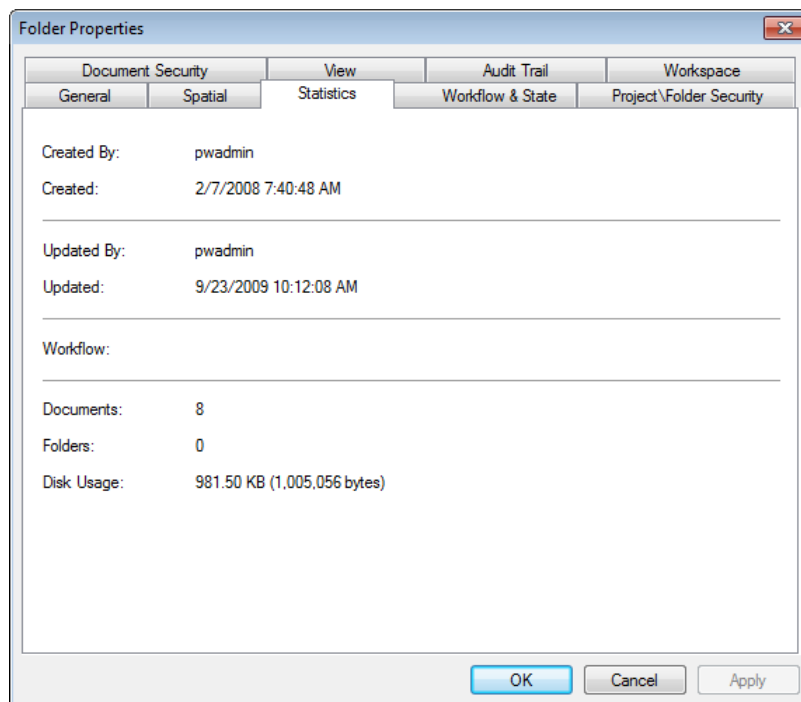
Updated displays the date and time that the file was last updated.

Workflow will display the workflow that is associated with the folder. (Currently not used at MoDOT)

Documents show the total number of documents contained in the selected folder. This does not include documents contained in the sub-folders.

Folders list the number of sub-folders contained in the selected folder.

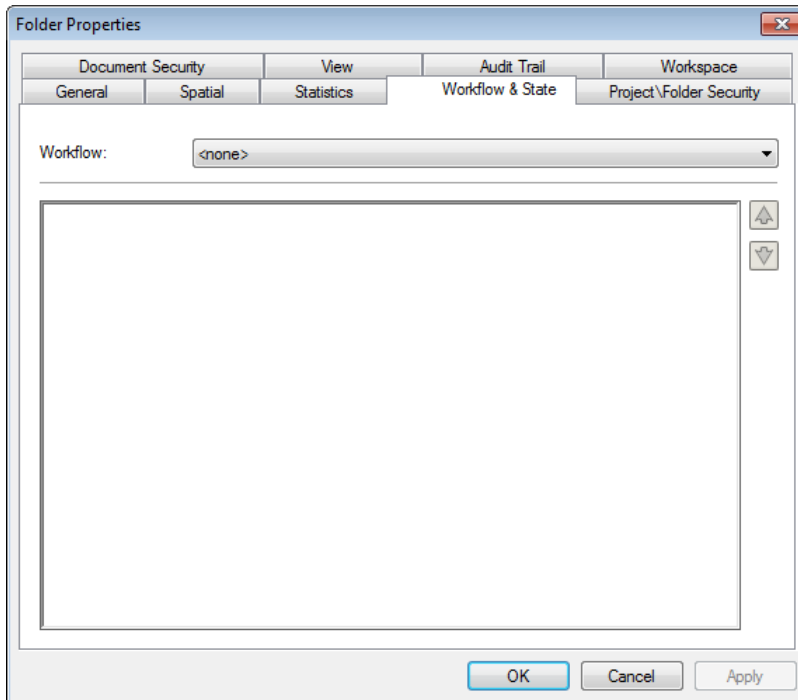
Disk Usage shows the physical size of the selected folder. This does not include documents contained in sub-folders.



Workflow and State tab

This tab contains controls to assign or modify a workflow. If you change the workflow, all the documents in the folder will be moved to the first state in that workflow.

Note: This is mainly used for the Central Office – Bidding and Review section for the final highway and bridge plans that are pdf format.



Project/Folder Security tab

This tab contains controls that set the security options on the folder. Think of Folder security when you see this tab. The controls let the users, groups, and user lists that need to have access to the folder. Users who not granted access to the folder are denied access to the folder.

Note: At MoDOT, folder security can only be assigned or modify by a ProjectWise Administrator.

Security Type shows whether security is for Folder, Workflow, or Real both folder & workflow.

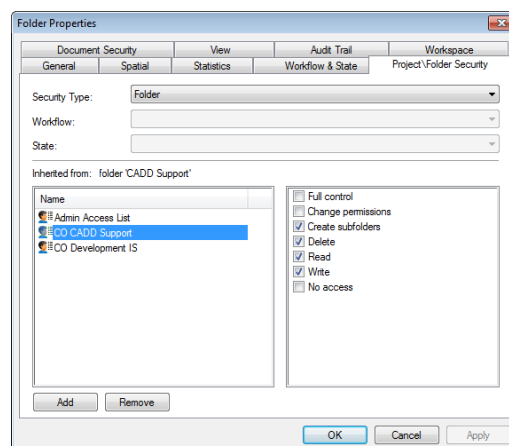
Workflow is available after changing the Security Type to Workflow or Real.

State also becomes available after changing the Security Type to Workflow or Real.

Inherited from shows the folder that the security permissions were inherited from.

The following permissions can be assigned:

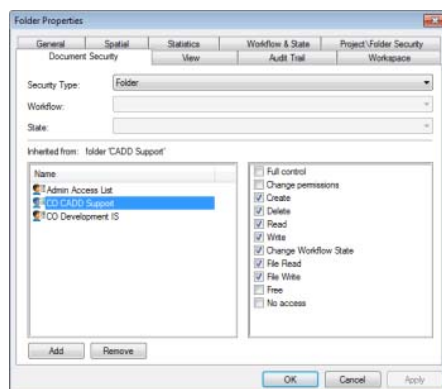
- Full control: You have total access to the folder with all editing facilities (this option will include access to future editing facilities).
- Change permissions: You can change the folder permissions.
- Create sub-folders: You can create sub-folders in this folder (in the ProjectWise Explorer Folder menu, the Create option displays).
- Delete: You can delete folders.
- Read: The folder displays in ProjectWise Explorer and you can view the folder properties (attributes).
- Write: You can modify the folder properties (attributes).
- No access: You have no access to the folder. Once this option is enabled for a user, they will not be able to see the folder in ProjectWise Explorer.



Document Security tab

This tab allows you to set the security options that apply generally to all the documents at the root of the folder.

- **Security Type — Folder** — If selected, the Workflow and State lists are disabled. The list shows the folder's own Security Objects or security inherited from the Object Security hierarchy.
- **Security Type — Workflow** — If selected, the Workflow and State lists become active. The Workflow list displays all the available workflows in the datasource. Selecting a workflow from the list assigns permissions to that folder, which become active when the folder is placed in the selected workflow. The State list displays all the available states within the selected workflow. Selecting a state from the list assigns permissions to that folder, which become active when the folder is placed in the selected state within the workflow.
- **Security Type — Real (Workflow & Folder)** — If selected, the Workflow and State lists become active. This option displays the combination of permissions from both the Folder and Workflow, therefore the selected user's permissions cannot be changed when this option is selected.
- **Workflow** — When Security Type is set to Workflow or Real (Workflow & Folder), this list displays all available workflows in the datasource.
- **State** — When Security Type is set to Workflow or Real (Workflow & Folder), this list displays all states in the workflow selected in the Workflow list.
- **Inherited from** — Displays the name of the item the documents in the folder inherits their rights from. The items can be global datasource, environment, workflow or workflow state. For example, in ProjectWise Administrator, if users are added to folder security at the datasource level, these are displayed in the User, Group, User List window (untitled) in the security tab page when creating a new folder.

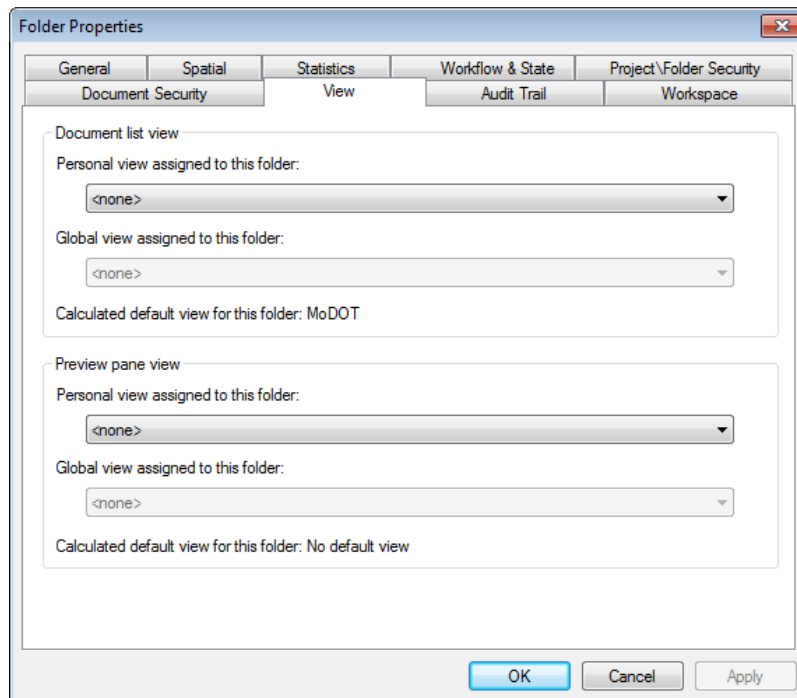


View tab

The tab lets you assign personal and global views to this folder or project. For complete information, see “*Using Views To Display The Properties You Want*” under the ProjectWise help.

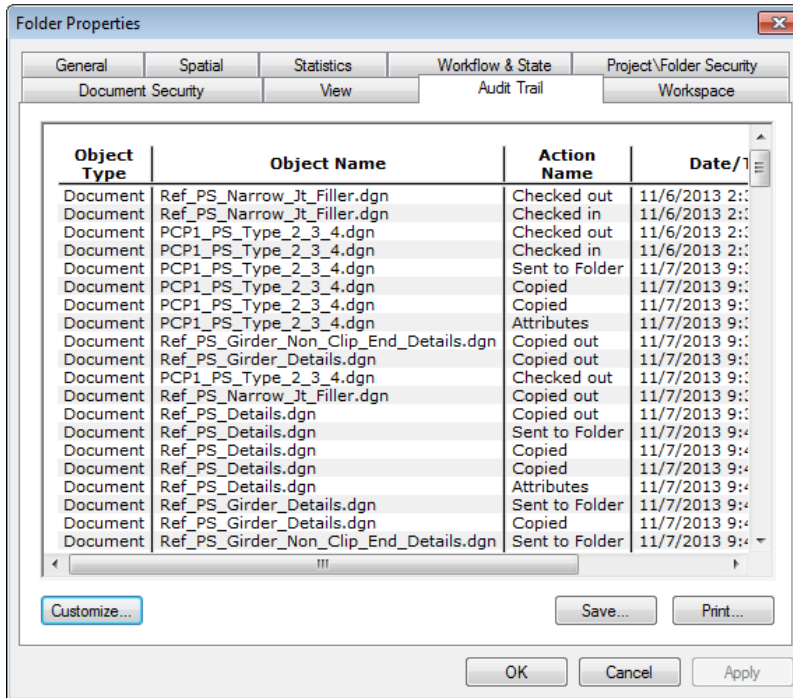
Document list view - In this section you can define which view will be applied to the document list in the documents window when this folder or project is selected. When both a personal view and a global view are assigned in this section, then that personal view will be applied. When neither a personal view nor a global view is assigned in this section, then whatever is set as the default view for the document list for all folders and projects in the datasource is applied.

Preview pane view - In this section you can define which view to apply to the preview pane in the documents window when this folder or project is selected. When both a personal view and a global view are assigned in this section, then that personal view will be applied. When neither a personal view nor a global view is assigned in this section, then whatever is set as the default view for the preview pane for all folders and projects in the datasource is applied.



Audit Trail tab

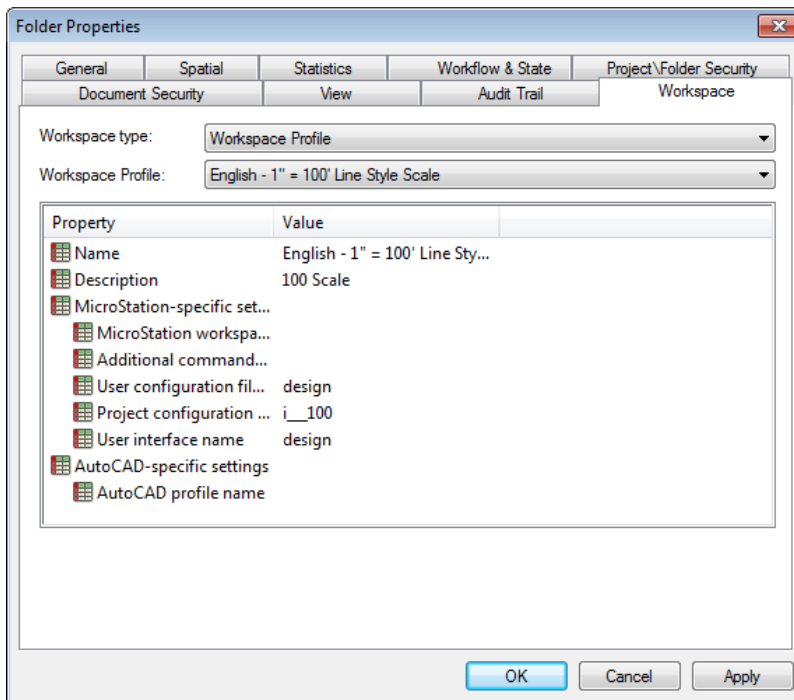
This tab will allow you to view that activity under the folder for the last 3 months. Any activity past 3 months is removed from the database.



Workspace tab

This tab lets you assign a (unmanaged) workspace profile or various managed workspace settings to the folder or project.

- **Workspace type** - Sets the Workspace type as created by the ProjectWise Administrator
- **Workspace Profile** - Lists the MicroStation profiles that can be assigned to the folder so all MicroStation files under the folder will open correctly.



Copying a folder structure to another folder

If you create a folder structure you want to reuse, you can copy and paste the structure to create new folders.

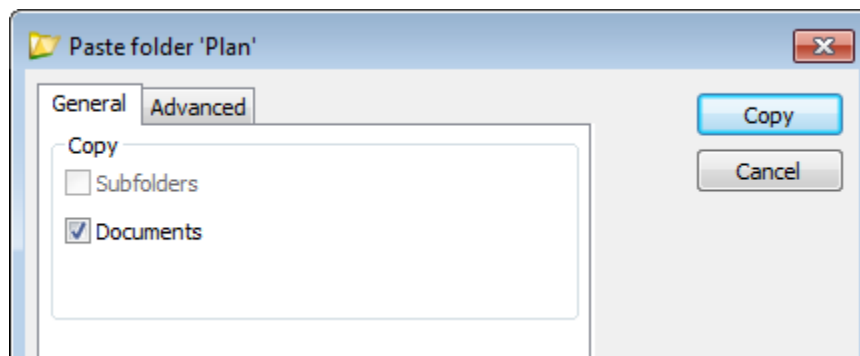
You can drag a folder with the folder structure that you would like to copy to another folder.

Paste folder dialog

The paste folder dialog allows the user to choose options to copy subfolders and copy documents under the General tab. This will also allow the user to change options in the Advanced tab.

General tab

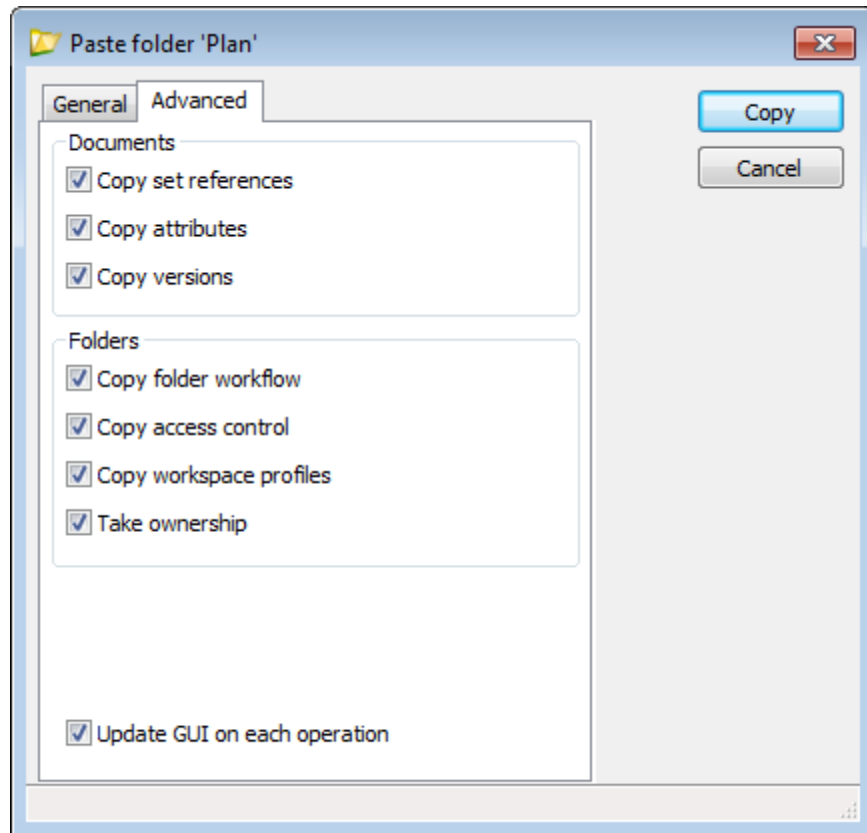
- **Subfolders** - When on, let's you copy the selected source folder and its subfolders into the destination folder. If off, you can only copy the contents of the selected source folder and its folders, but not the folders themselves, into the destination folder.
- **Documents** - When on, let's you copy documents from the source folder into the destination folder. If 'Copy Subfolders' is also on, documents are copied along with their folder into the destination folder.



Advanced tab

- **Copy set references** - When on, set relationships are kept between any master documents included in the copy and their references. If any of a master document's references are in a folder included in the copy, then the new copy of the master document is linked to the new copies of the reference documents. If any of a master document's references are in a folder not included in the copy, then the new copy of the master document remains linked to the original (uncopied) reference documents. When 'Copy set references' is off, any master documents in the selected source folder will no longer be master documents when copied into the destination folder.
- **Copy attributes** - When on, document attributes are copied. If both Copy documents and Copy set references are not turned on, this option is grayed out and unavailable.

- **Copy versions (without reference sets)** - When on, versions are copied into the destination folder; however, if any of the versions are master documents of logical sets, the versions will no longer be master documents.
- **Copy folder workflow** - When on, the selected source folder's workflow is retained in the new copy of the folder. If off, the newly copied folder inherits the workflow of its new parent folder.
- **Copy access control** - When on, the selected source folder's security settings are retained in the new copy of the folder. If off, the newly copied folder inherits the security settings of its new parent folder.
- **Copy workspace profiles** - When on, the selected source folder's workspace settings are retained in the new copy of the folder. If off, the newly copied folder inherits the workspace settings of its new parent folder.
- **Take ownership** - When on, the user performing the copy becomes the owner of the newly copied folder. If off, the user who is the owner of the selected source folder will also be the owner the newly copied folder.
- **Copy saved searches** - When on, any saved searches in the copied project are retained in the new copy of the project.
- **Copy resources** - When on, the resources currently set for the copied project remain the same in the new copy of the project.
- **Update GUI on each operation** - When on, the ProjectWise Explorer window updates after each copy. If off, the ProjectWise Explorer window updates once after all copies are completed.

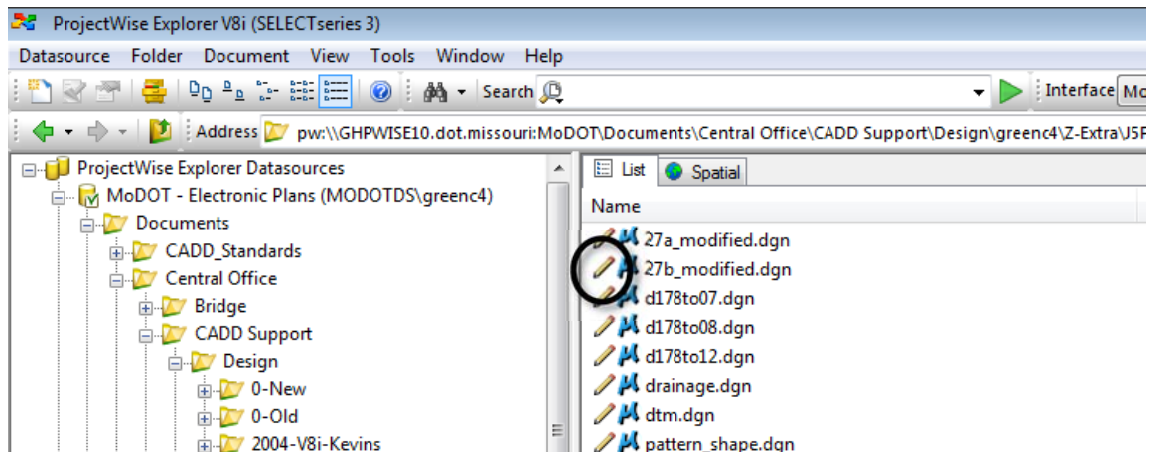


Section 3








Working with documents

Document Icons

Each document in the documents window has two icons associated with it. The first icon indicates the permissions and usage for the document.











Icons that indicate a document's permission and status

Icon	Description
	Pencil icon – Read/Write access.
	Open book – Read access only (either because access control is set to read-only or because the document is not the active version).
	Lock – Document is currently checked out or has been exported by another user.
	Red check mark – Document is checked out by you.
	Exported – Document has been exported by you.
	Exported – Document has been exported by you.
	Exported – Document has been exported by you.

Icons that indicate a document's type and associated application

The second icon next to an entry in the document's window indicates whether it is

- A free standing document (a document not grouped in a set).
- An unassigned document (one which has not been assigned to an application).
- A redline document (one which has been created using the ProjectWise redline feature).
- A flat set (a set of documents at the same level).
- The parent (master) file of a logical set (a nested set of MicroStation reference documents).

Icon	Description
	Default – This icon displays when a document is associated to an application, but the application has no icon associated to it.
	Unassociated – This icon displays next to a document which is not associated to an application.
	Redline – ProjectWise Redline Document.
	Flat Set – Document Group.
	Logical Set (MicroStation) – MicroStation Master file with references attached.
	Logical Set (MicroStation) – MicroStation Master file storing a link set.
	Logical Set (MicroStation) – MicroStation Master file with references attached and storing a link set.
	Logical Set (AutoCad) – AutoCad Master file with references attached.

Checking Out and Opening Documents

Checking out a document locks the document so that no other user can make changes to it while you are working on it. To check out a document, you must have read/write privileges for that document.

You can either check out the document or open it later, or you can check out the document and open it simultaneously. Opening a document to which you have read/write privileges checks the document out (if not already checked out), downloads a copy of the document from the ProjectWise server to your working directory, and then opens the document in the appropriate application.



When a document is checked out, the document's read/write (pencil) icon is replaced by a check mark icon to show that you have checked out the document.



To other users, a lock icon to show that another user has locked the document replaces the read/write icon.

- You can only check out documents for which you have read/write privileges, and
- which are not locked by you or another user.

To check out one or more documents (to be edited later)

1. In the documents window, select one or more checked in documents to which you have write access and from the Document menu, choose Check Out.

To check out and open a document (in its associated application)

1. In the documents window, select a checked in document to which you have write access and from the Document menu, choose Open.
The document is checked out and opened. The program that launches depends on the ProjectWise application associated to the document, and the program defined to open documents associated to that application.

To open a document in a new instance of the document's associated application

1. Open a document from ProjectWise Explorer (Document > Open).
2. After the document opens in its associated application, go back to ProjectWise Explorer and select another document associated to the same application.
3. This time, press the <Shift> key and choose Document > Open.
The second document opens in a new instance of the associated application.

You can also check out and open documents in applications other than their associated application. Opening documents in this way does not change the application's associated executable.

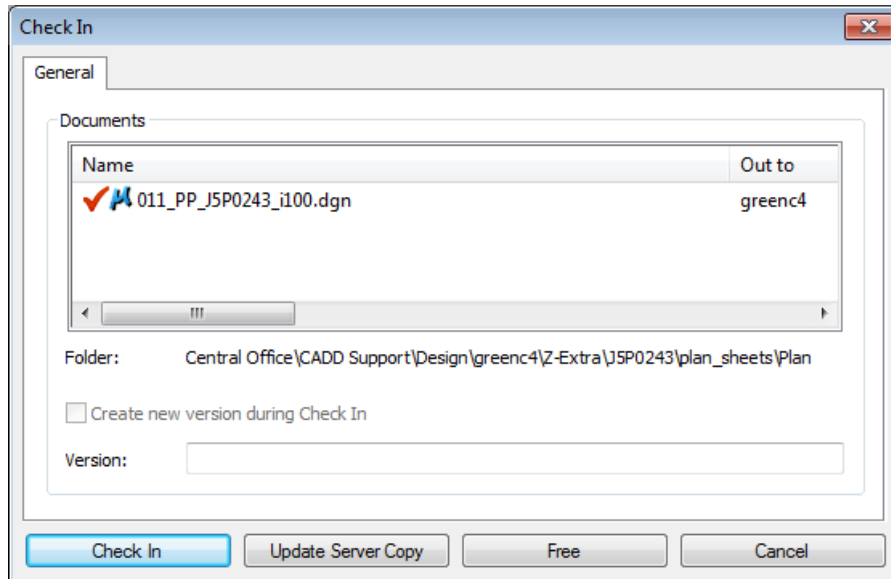
To check out and open a document (in an application other than the associated application)

1. In the documents window, select a document and from the Document menu, choose Open With.
A standard file open dialog box opens, allowing you to search for the program shortcut or executable file for the application in which you want to open the file.
2. Navigate to and select the appropriate executable (.exe) file or program shortcut, then click Open.
The selected document is checked out and is opened in the selected application.

Document Check In

Document “Check In” from the editing application

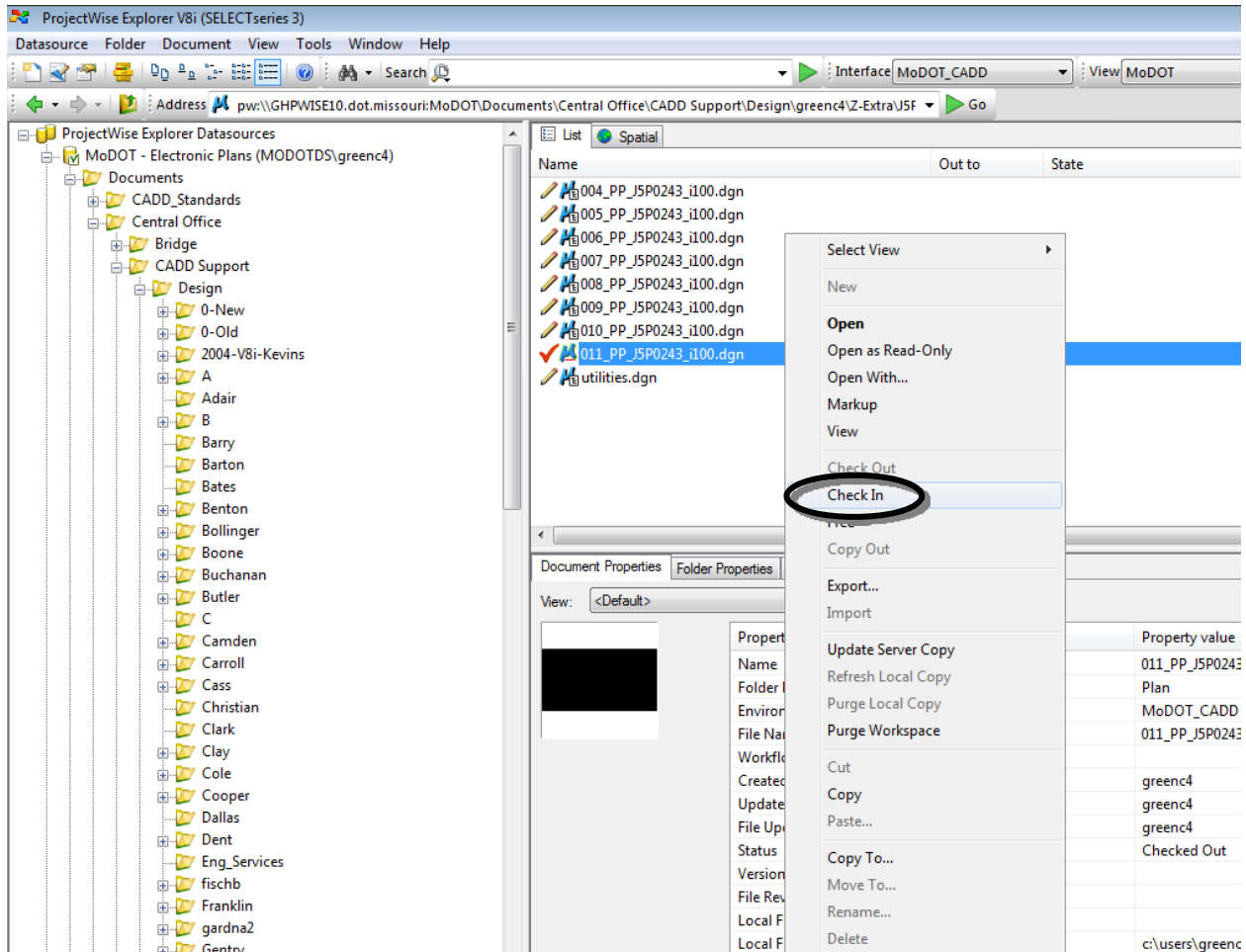
When you close a document that is stored in ProjectWise, you will be prompted to check it back in.



You have options to either *Check In*, *Update Server Copy*, *Free*, or *Cancel*. Normally you will select the **Check In** option, which updates the file back to the server and also checks the document back into ProjectWise so other users can open and modify it. Checking in a document also replaces the document's check mark icon (or to other users, the lock icon) with its read/write (pencil) icon.

- **Check In** – Updates the server copy of the document with changes you made in your local copy and returns the document's status from Checked Out to Checked In.
- **Update Server Copy** – Updates the server copy of the document with changes you made in your local copy and leaves the document's status set to Checked Out.
- **Free** – Returns the document status from Checked Out to Checked In, but does not delete the local copy of the document.
- **Cancel** - Closes the Check In dialog without taking any action on the document. If you later want to check in, update server copy, or free this document, you can do so from ProjectWise Explorer.

Document “Check In” from ProjectWise Explorer

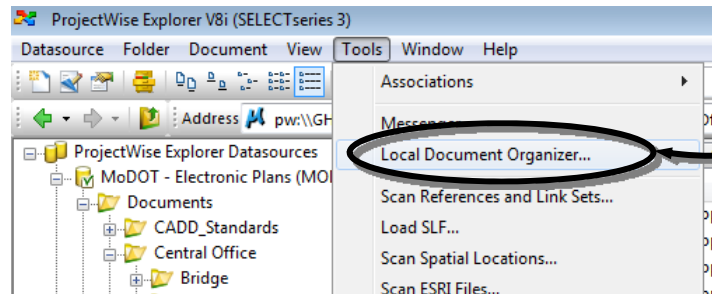


You can also check in a document through ProjectWise Explorer. Simply right click over the checked out document and choose the “Check In” option.

Important: If a checked out document is open in an application and you attempt to “check in” the document from ProjectWise Explorer, you will receive an error message and ProjectWise will not allow you to “check in” the document until you close the document.

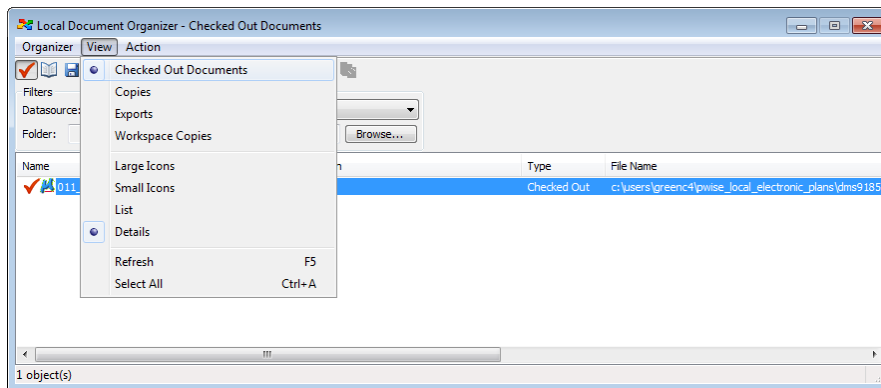
Document “Check In” from the Local Document Organizer

Open the *Local Document Organizer* dialog box by choosing *Local Document Organizer* from the Tools pull down menu.



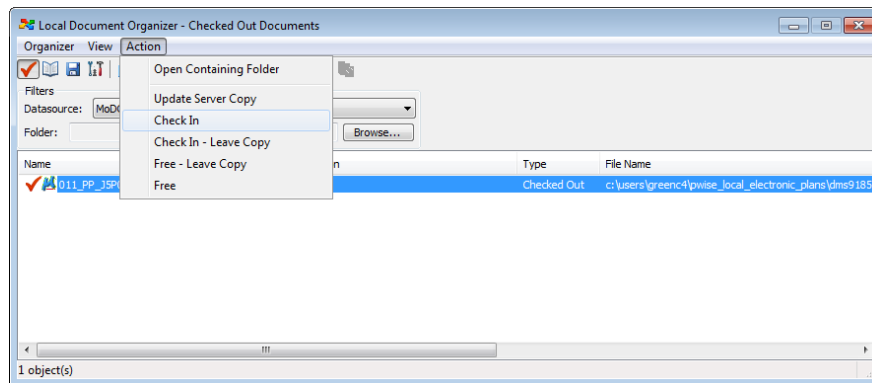
Under the *View* menu, choose *Checked Out Documents*.

All of the documents you currently have checked out will display in the document window.



In the document window, select one or more of the checked out documents.

To check in the documents, simply choose either *Check In* or *Check In – Leave Copy* from the *Action* pull down menu.

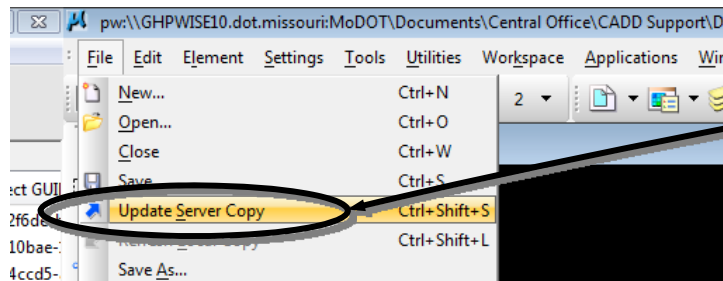


The *Check In* and *Check In – Leave Copy* options do the same action within MoDOT’s configuration.

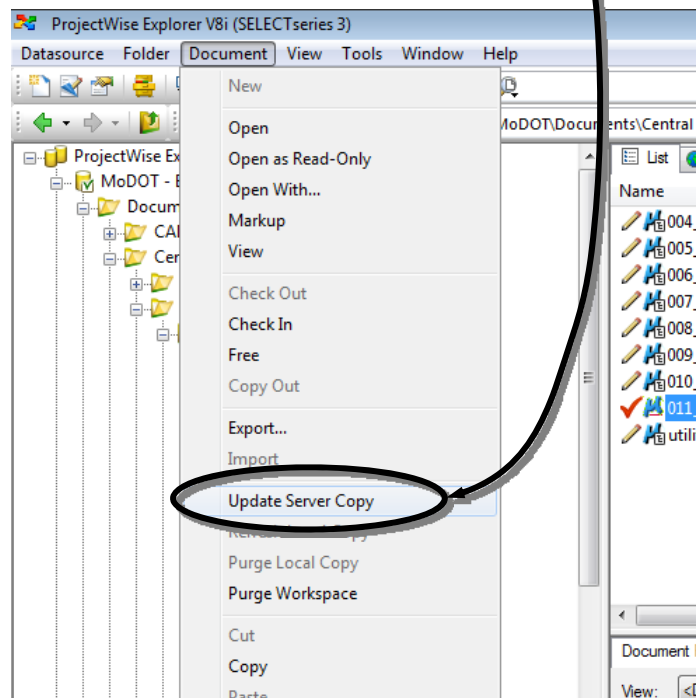
Updating documents in ProjectWise without checking them in

There may be times where ProjectWise users may need to see the most recent changes you have made to a document, while you may not be ready to disrupt your workflow and check in the document. In this scenario, you can use *Update Server Copy* option to replace the server copy of a document by the copy of the document you have checked out, without actually checking in the document, and while maintaining 'checked out' status.

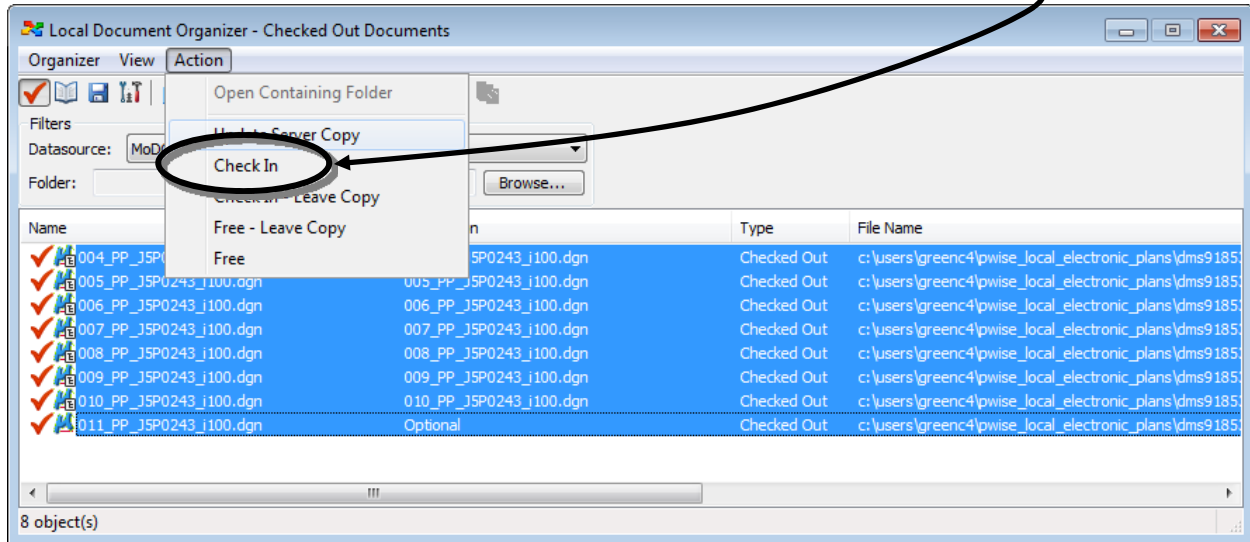
From MicroStation, you can choose the *Update Server Copy* from the *File* pull down menu.



From ProjectWise Explorer, you can choose the *Update Server Copy* from the *Document* pull down menu. Another option in ProjectWise is to right click over the checked out file, then select the *Update Server Copy* option.



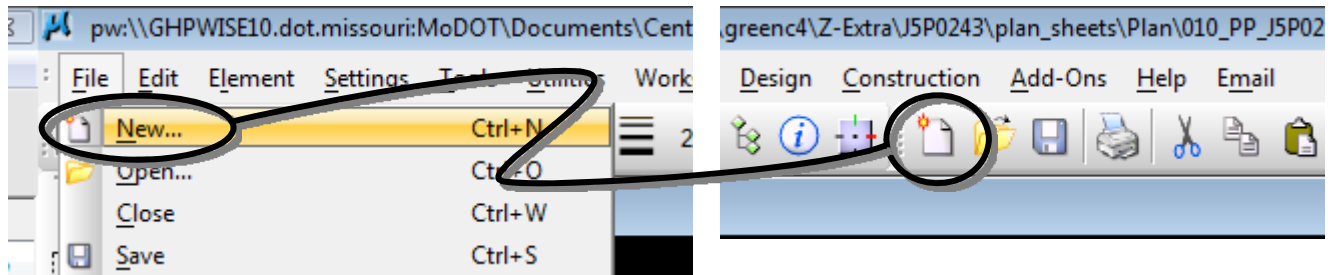
You may also use the *Local Document Organizer* in ProjectWise and select *Update Server Copy* to update a file without closing and checking in the file.



Creating ProjectWise Documents from MicroStation

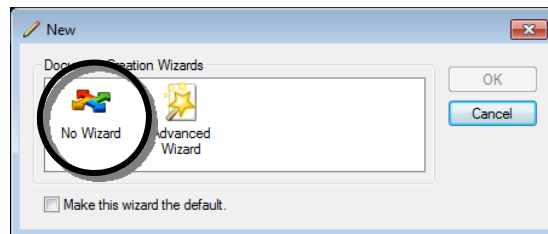
There are two options when you choose to create a new document in MicroStation through ProjectWise, **No Wizard** and **Advanced Wizard**.

The *No Wizard* option is an option that allows the user to create the document file and come back to fill in the attributes after the file has been created. Using the *Advanced Wizard* allows the user to fill out the attributes as part of the creating file routine.

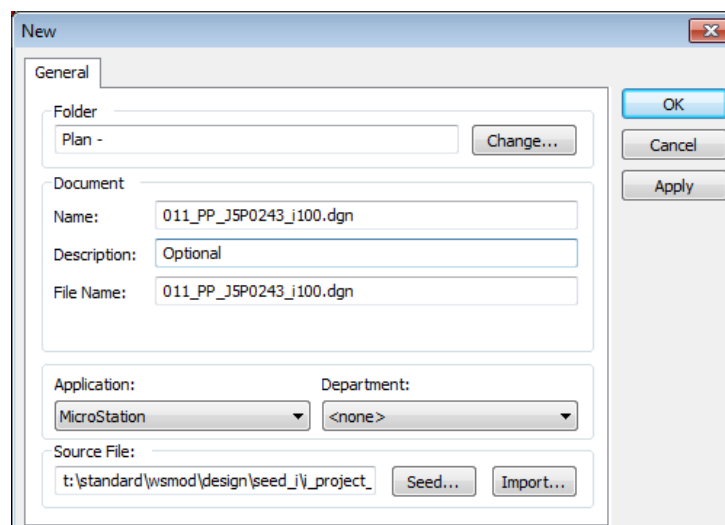


Choosing to create a new file from MicroStation either by the pull down or the icon will open the *New Document Creation Wizards* dialog box.

No Wizard option



We will go through the **No Wizard** option. Selecting the *No Wizard* option opens a *New* dialog box with the General tab.



General Tab

Folder option – Displays the current folder location that the Design file will be created in or choosing the Change button and then choosing the preferred folder location can modify this.

Document options – Name & File Name need to be the same.

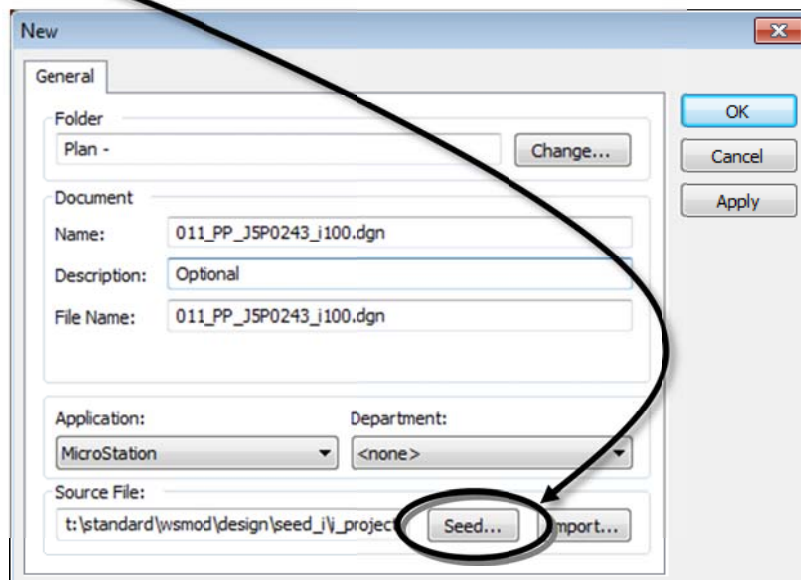
- Name: Name of the document that ProjectWise recognizes as the document placeholder.
- File Name: Name of the file as required through MoDOT's file naming convention criteria.
- Description: (optional)

Application – Allows the user to pick through a list of applications that will be associated with the file.

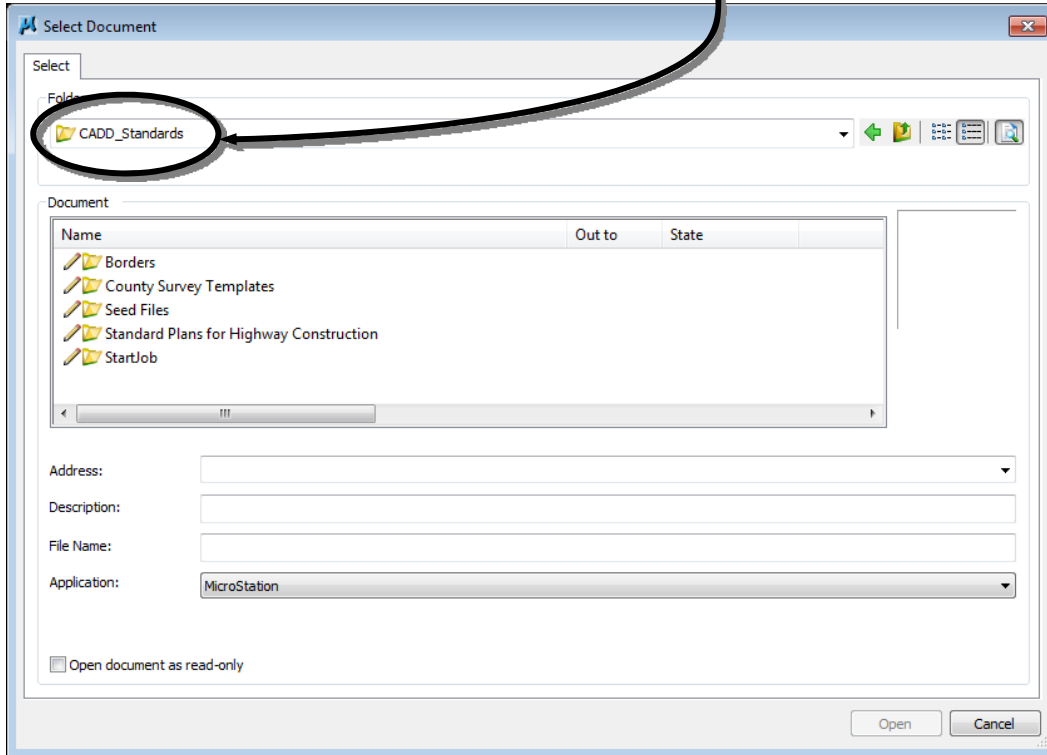
Department – Allows the user to pick from a list of departments that this document will pertain to.

Source File – Allows the user to use a seed file or import a file from outside of ProjectWise.

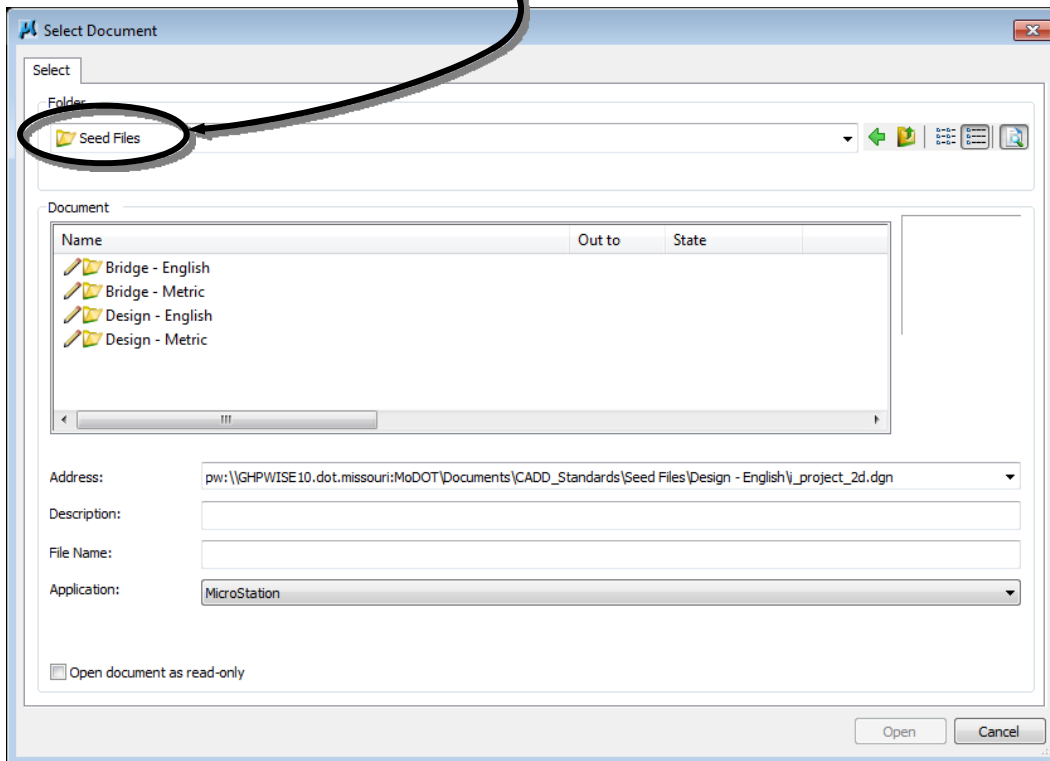
To create a new document based on an existing ProjectWise document's file, click *Seed*.



Navigate to the *CADD_Standards* folder.

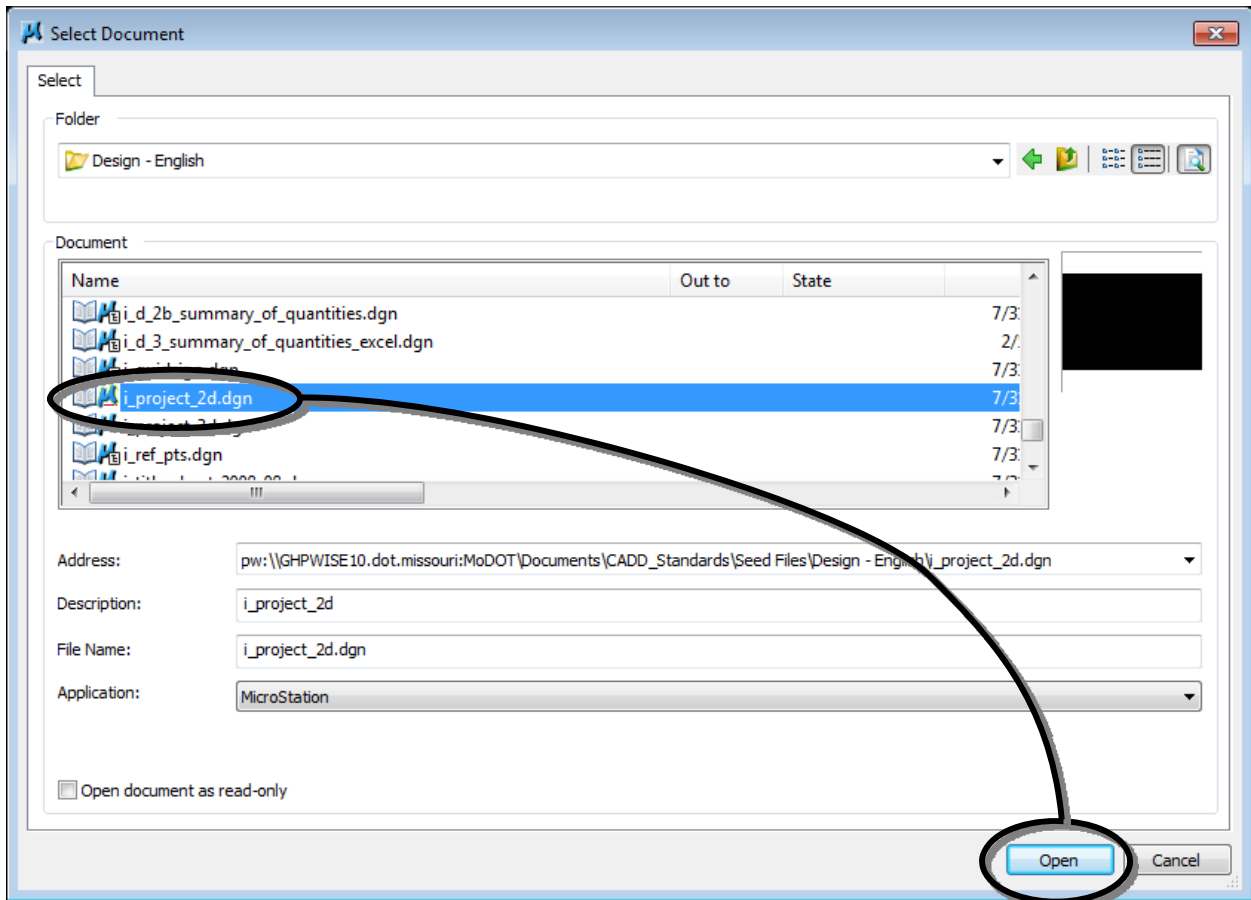


Navigate to the *Seed Files* folder.

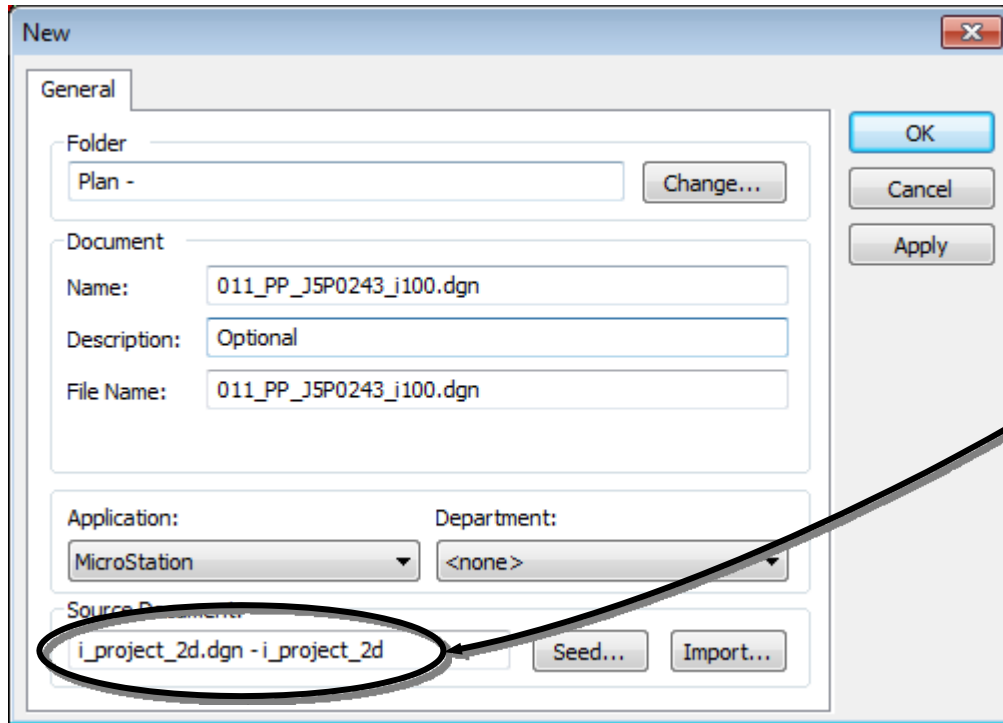


Open the *Design – English* folder.

Select the document to be used as a seed file, and click *Open*.

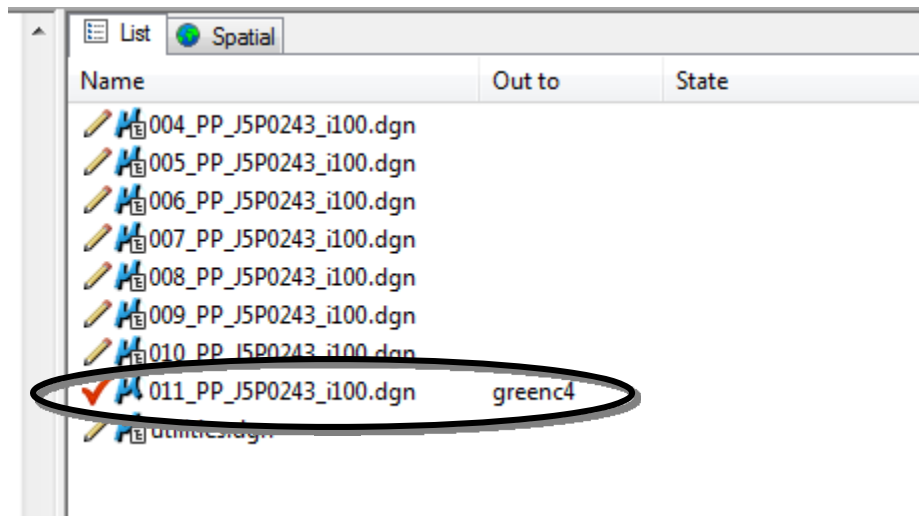


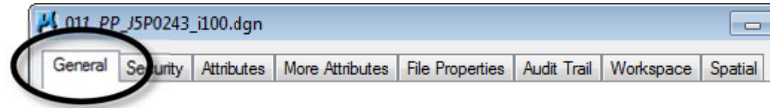
The seed document's name and description display in the *New* dialog box's Source Document section.



Click the *OK* button and MicroStation will open the newly created document.

ProjectWise also now lists the file name and the Out To column shows your userid.

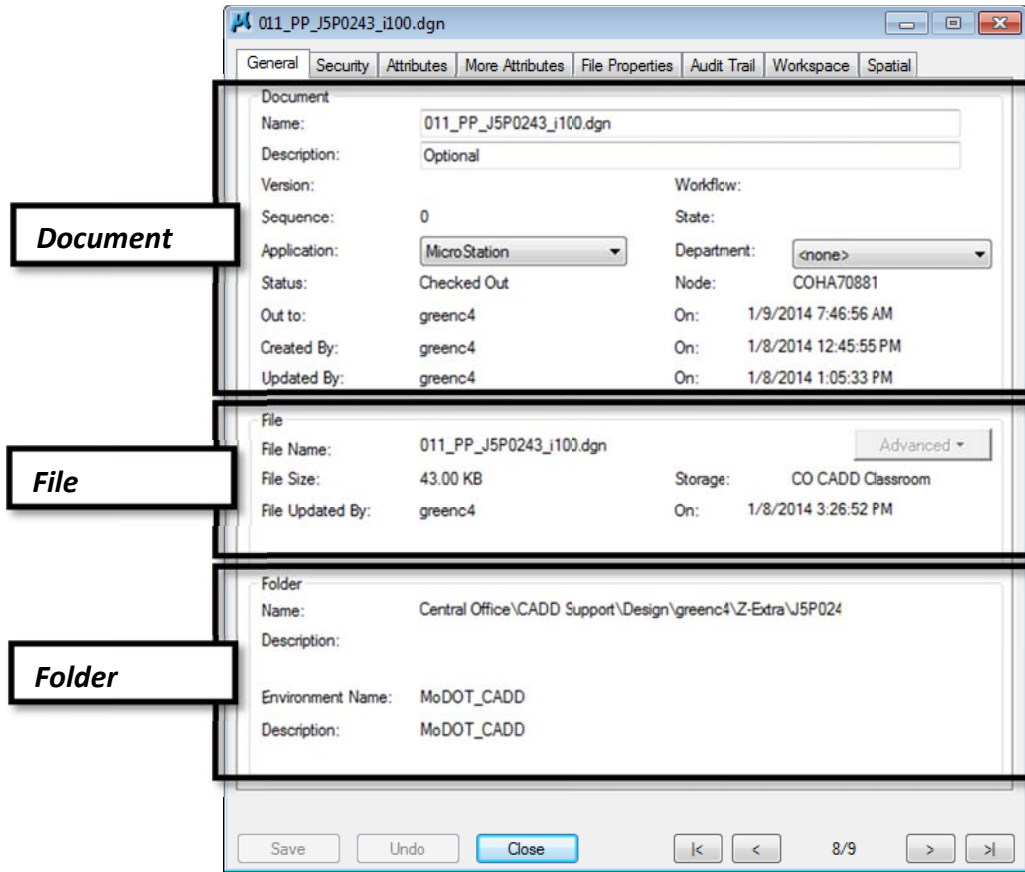


General Tab

This tab displays information about system attributes. These attributes are related to the management of the document. Some of these are editable and some are not.

System Attribute	Editable
Document	-
Name	Yes
Description	Yes
Version	No
Sequence	No
Application	Yes
Status	No
Out to	No
Created/updated by	No
Workflow	No
State	No
Department	Yes
Node	No
File	-
File name and size	No
Updated by	No
Storage	No
Dates	No
Folder	-
Name and description	No
Environment name	No
Environment description	No

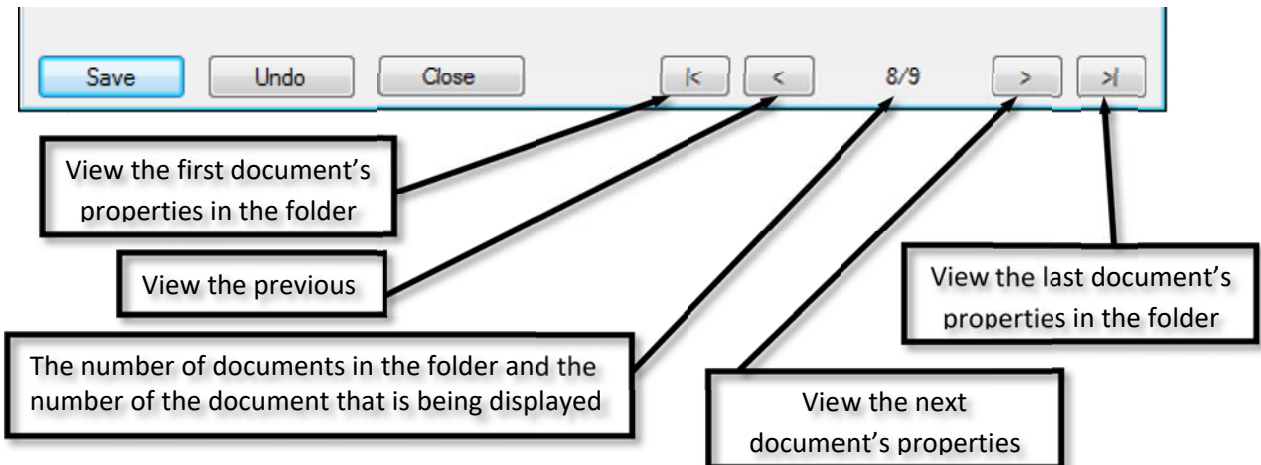
WARNING: If you change the application, the selected application will be used to open the file.



Example of a document's Document Properties

General document properties

The *Document Properties* dialog box has tabs across the top and buttons across the bottom. The buttons across the bottom will allow the user to Save, Undo, Close, view the previous document's properties, view the first document's properties in the folder, view the next document's properties or view the last document's properties in the folder.



Document section

The *Document* is the server “placeholder” name. This is the name that the Oracle server will use and the name that the user will see in the ProjectWise Explorer.

Document			
Name:	011_PP_J5P0243_i100.dgn		
Description:	Optional		
Version:	Workflow:		
Sequence:	0	State:	
Application:	MicroStation	Department:	<none>
Status:	Checked Out	Node:	COHA70881
Out to:	greenc4	On:	1/9/2014 7:46:56 AM
Created By:	greenc4	On:	1/8/2014 12:45:55 PM
Updated By:	greenc4	On:	1/8/2014 1:05:33 PM

Name - Sets the display name for the document. The Name field is limited to 127 characters.

Description - Used to provide an optional description of the document. The Description field is limited to 127 characters.

Version - Displays the version of the selected document. |

Sequence - Displays the number in which the document falls in the sequence of versions.

Application - Sets the application to be associated with the current document.

Workflow - Displays the name of the workflow that is applied to the folder containing the selected document. If no workflow is applied to the folder, this field is blank.

State - Displays the state of the workflow that the selected document is in. If no workflow is applied to the folder, this field is blank.

Department - Sets the department to be associated with the current document.

Status - Displays the status of the selected document (Checked In, Checked Out, Exported, Final, Not Checked In, Not Checked Out, Not Exported, or Not Final). This field is blank before the document is created; immediately after creation, the status of the document is Checked In.

Node - Displays the name of the computer to which the selected document is checked out or exported. This field is blank if the document is in any other status.

Out to/Final by - Displays the user name of the user who has checked out, exported, or set final status on the selected document.

On (Status last changed) - The On field to the right of the Out to/Final by field displays the time and date the document's status was last changed.

Created By - Displays the name of the user who created the document.

On (Created) - The On field to the right of the Created By field displays the time and date the document was created.

Updated By - Displays the name of the user who last modified the selected document. If the document has not been modified since it was created, this field displays the user name of the user who created the document.

On (Updated) - The On field to the right of the Updated By field displays the time and date the document was modified. If the document has not been modified since it was created, this field also displays the time and date the document was created.

File section

File			
File Name:	011_PP_J5P0243_100.dgn		Advanced ▾
File Size:	43.00 KB	Storage:	CO CADD Classroom
File Updated By:	greenc4	On:	1/8/2014 3:26:52 PM

File Name - Displays the name of the file attached to the selected document. If no file is attached to the selected document, this field is blank.

File Size - Displays the amount of disk space the attached file occupies.

File Updated By - Displays the user name of the user who last modified the file attached to the selected document.

Storage - Displays the selected document's folder's storage area. Every folder is associated to a storage area, which determines where the server copies of the ProjectWise files are stored.

On (File Updated) - The On field to the right of the File Updated By field displays the time and date the file attached to the selected document was last updated.

Folder section

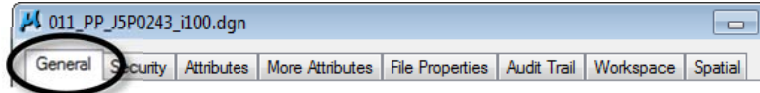
Folder	
Name:	Central Office\CADD Support\Design\greenc4\Z-Extra\J5P024
Description:	
Environment Name:	MoDOT_CADD
Description:	MoDOT_CADD

Name — Displays the name of the folder the selected document is in, or the folder you are in when you create a new document. If you are viewing the properties of an existing document, the Change button is disabled. If you are creating a new document, clicking the Change button allows you to select a different folder in which to create the document.

Description — Displays the description of the containing folder, if one exists.

Environment Name — Displays the name of the environment that is applied to the folder containing the selected document. The environment determines which attributes display on the Attributes and More Attributes tabs.

Description (Environment) — Displays the description of the folder's environment. This field is blank if no description exists.

Security tab

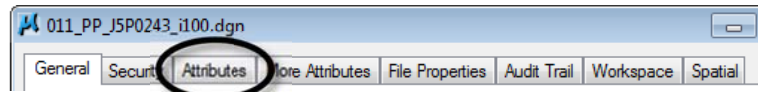
The document security type and properties can be viewed or changed on the security tab. If no security is set, then everyone has complete access to the document. If there is at least one access control set on the document, then any individual or group that is not given explicit access is denied access to a document.

Permissions are assigned as follows.

Permission	Document Rights
Full control	You can perform every document function
Change permissions	You can change document permissions
Delete	You can delete documents
Read	The document is visible in Documents window, you can view the document's properties and attributes
Write	You can modify document properties and attributes
Change Workflow State	You can change the workflow state of the document
File Read	You can open the document's file in Read-only. You can copy out the document, but not check it out
File Write	You can modify the document's file. You can check out the document, make changes and check it back in
Free	You can free the document, even if someone else has the document checked out or export out in there name.
No Access	You have no access to the document

Whether you can change these settings depends on the rights granted by your administrator and possibly by the owner, or Manager, of the document.

Attributes tab



The *Attributes* tab allows the user to plug in values that pertain to a specific project.

Entering the project data in the *Title Block Exchange* section will allow the PDF file for contract plans to generate properly and to the correct location.

 A screenshot of the 'Attributes' tab in the software. It is divided into two main sections: 'Title Block Information' and 'Project Information'. The 'Title Block Information' section includes fields for District Name (Central), Job Number (5P0243), Scale (1"=100'), Route (7), Sheet #, Contract ID, Project Manager, Project Number, County (Camden), Bridge Number or Project Stages, and District # (4). The 'Project Information' section includes fields for Project Surveyor, Grid to Ground Factor, Length of Project (2.80000), Begin Township, Range, and Section. A note at the bottom states '* Required Fields For Contract Plans'.

Project Information

- * **District** allows a user to choose the project's District.
- * **Job Number** allows a user to select the job number from a pull down list.

Route information is automatically populated after choosing the *Job Number*.

Sheet # will fill in the title block sheet number when the user plugs in that number.

Contract ID can be filled out in this input field and will also show on the plan sheet title block.

Project Number can be filled out in this input field and will also show on the plan sheet title block.

County is automatically populated after choosing the Job Number.

- ** **Bridge Number** needs to be filled out for Bridge Plans.

Title Block Information

* District Name	* Job Number
Central	5P0243
Route	Sheet #
7	
Contract ID	
Project Number	
County	
Camden	
Bridge Number or Project Stages	

* **Scale** applies the English or Metric scale of the project. This field is a required input field for producing the Adobe Acrobat PDF Contract Plans.

* Scale

* **PDF Create A or B** allows the user to create and Adobe Acrobat PDF in an A size (8 ½” x 11”) or a B size (11” x 17”).

* PDF Create A, A - Portrait or D

Project Manager

Project Manager is automatically populated with the Project Manager’s name after choosing the *Job Number*.

* Indicates a field that is required to be filled in for creation of Contract Plan PDF files.

** Indicates an additional field to be filled in by the Bridge division for creation of Contract Plan PDF files.

Project Information

Project Information

Project Surveyor <input type="text"/>	Grid to Ground Factor <input type="text"/>	Length of Project <input type="text" value="2.800000"/>
Begin Township <input type="text"/>	Range <input type="text"/>	Section <input type="text"/>

Project Surveyor allows the input of the name of the Surveyor for the project.

Grid to Ground Factor

Length of Project will populate the value if the value has been entered into the Oracle database.

Begin Township allows the input of the beginning Township that the project is located.

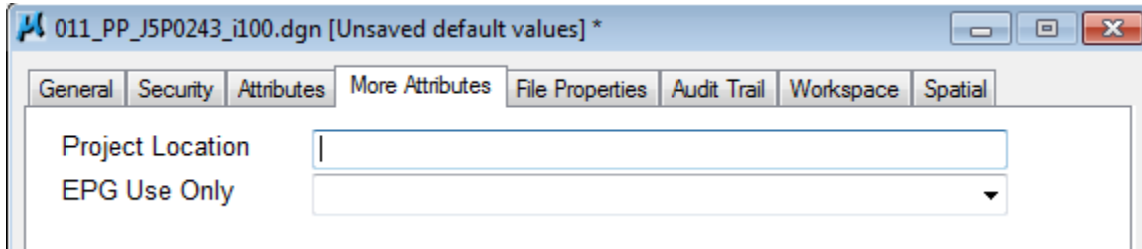
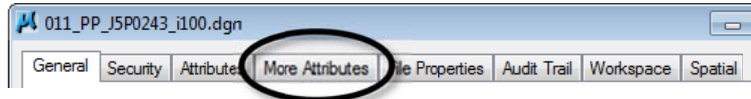
Range allows the input of the Range.

Section allows the input of the Section.

NOTE: The Attribute tab is explained in more detail in Section 4 – PDF Generation Process for Final Contract Plans, Preliminary Plans and R/W Plans for purposes at MoDOT.

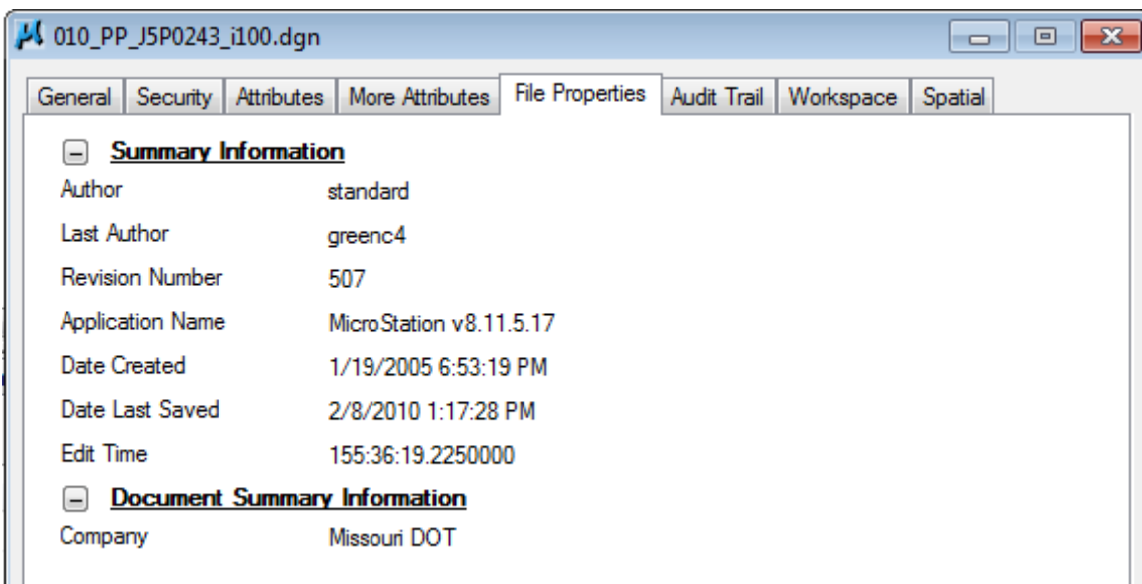
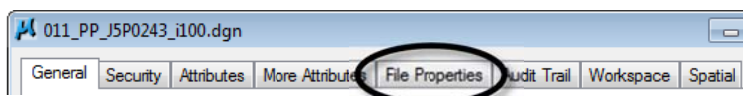
More Attributes tab

This tab will allow for additional attributes to be added in the future.

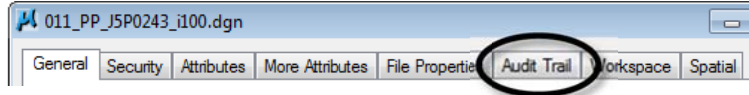


File Properties tab

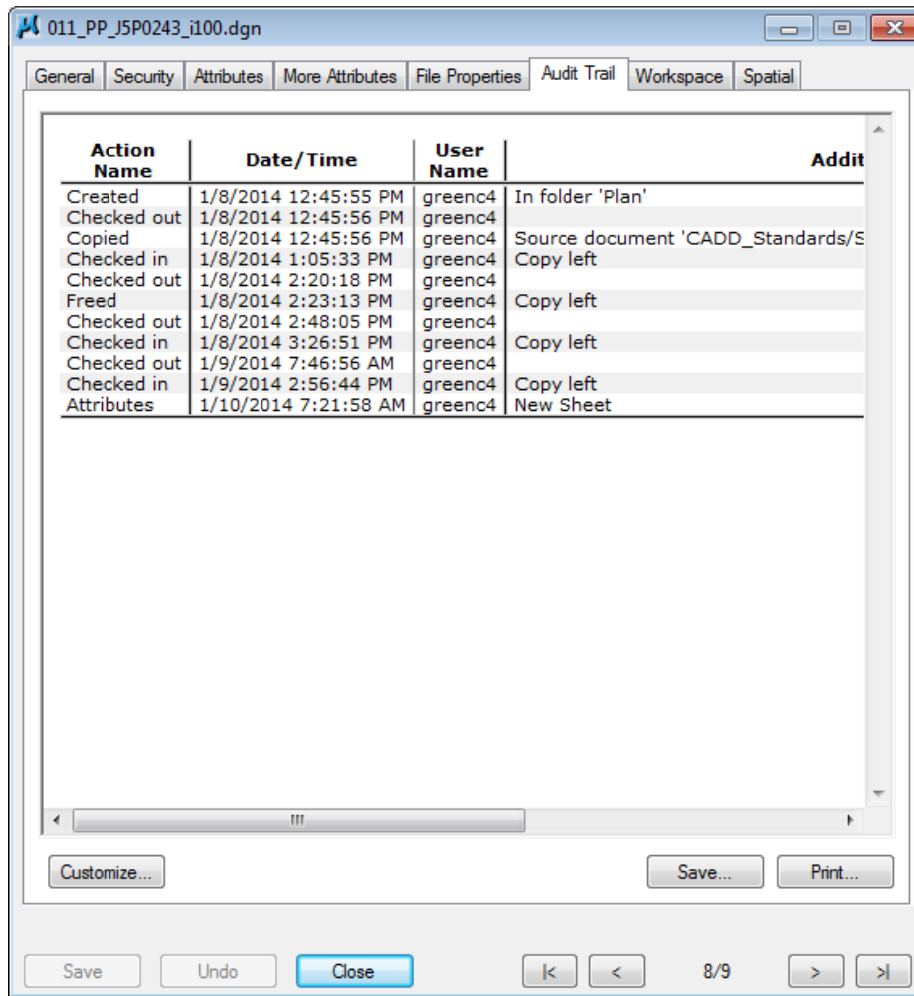
This tab lends information about the particulars of a file.



Audit Trail tab

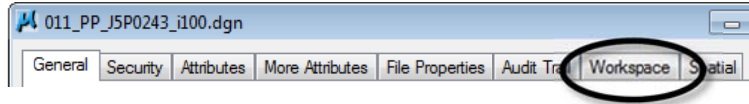


A document's audit trail provides you with a list of all activities that have taken place for the document. An audit trail record is created as an action or activity takes place.

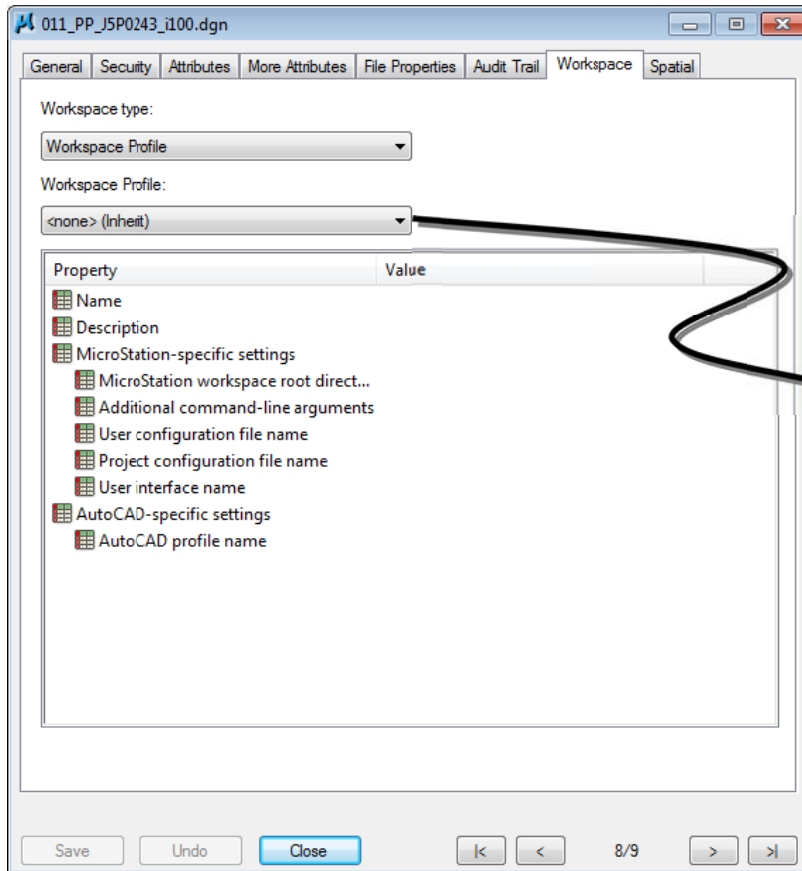


Workspace tab

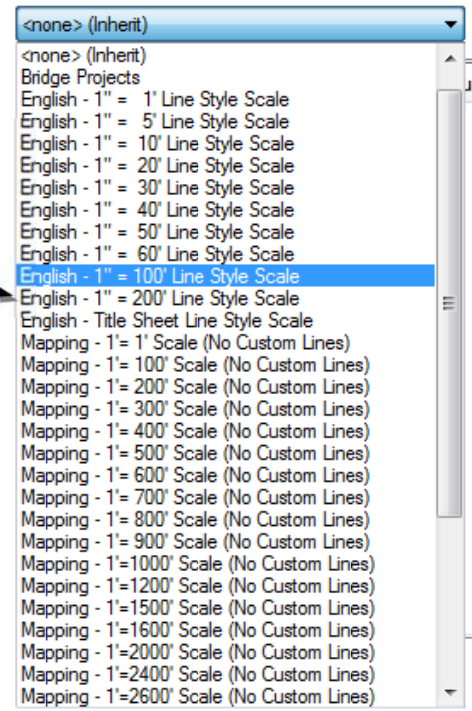
This tab lets you assign a workspace profile to the folder or project.



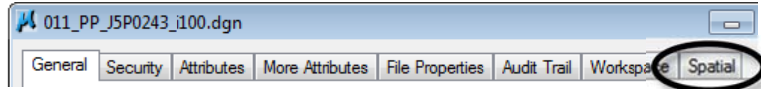
- **Workspace type** - Sets the Workspace type as created by the ProjectWise Administrator
- **Workspace Profile** - Lists the MicroStation profiles that can be assigned to the document so the documents will open with the correct linestyle resource files.



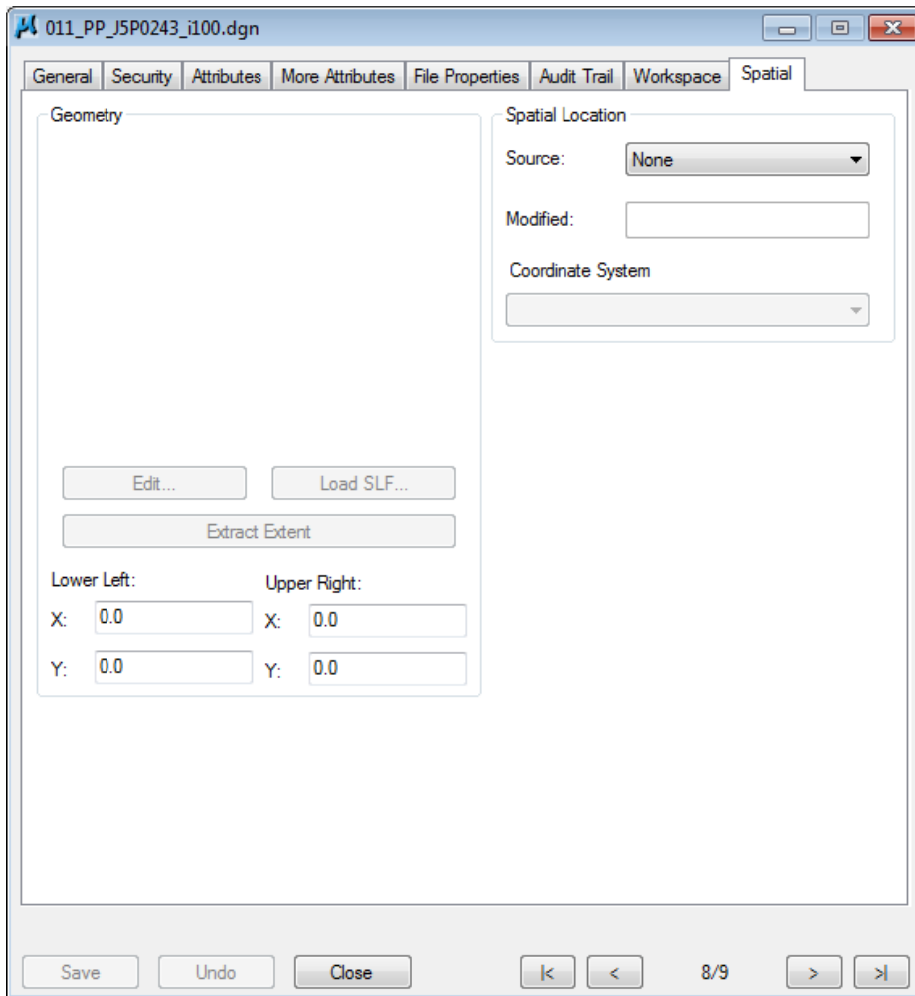
Workspace Profile:



Spatial tab



This tab controls what spatial data is applied to the document, such as an aerial background map, coordinate system and source. MoDOT currently doesn't have spatial database setup for production.



Section 4

PDF Generation Process for Final Contract Plans, Preliminary Plans and R/W Plans

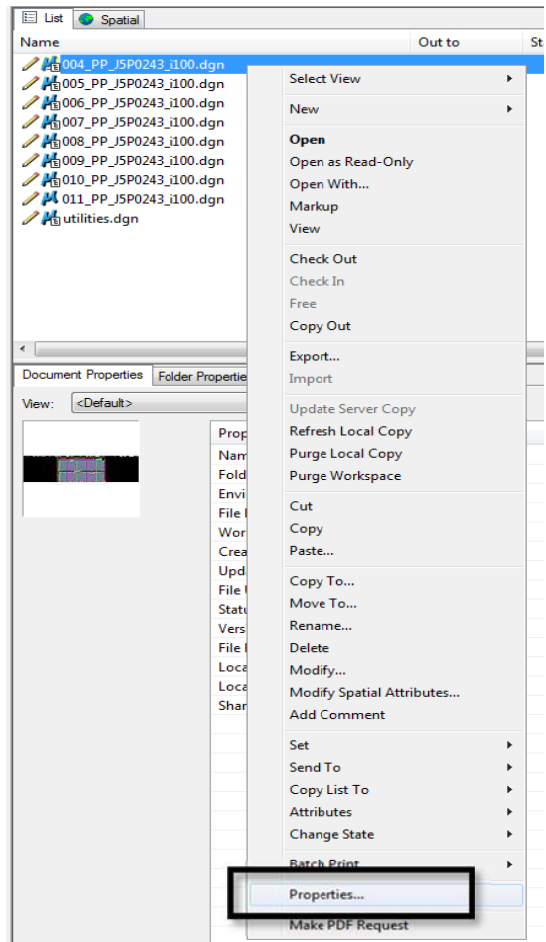
MoDOT uses a process through ProjectWise to generate the contract plan PDF files from the MicroStation files for the Project Manager, Structural Project Manager, District Land Surveyor, etc. to sign and seal. These electronically signed PDF files will be reviewed and then posted on the MoDOT online Plans Room website. Once the signed PDF files are on the site, contractors can download the PDF files to estimate and bid on the projects.

In order for the PDF files to generate properly, proper steps need to be done to the MicroStation files. The instructions below will demonstrate what needs to be done for the PDF files to generate properly and to the correct location.

Step 1 – Assigning Attributes for the MicroStation Contract Plans Files

The Attributes will need to be assigned to the MicroStation contract plan files so the PDF creation of the contract plan will work properly. The PDF documents will not be created if the attributes are not filled out properly for the contract plan drawings.

- **Right click** over one of the MicroStation contract plan files and select the **Properties** option.



Select the **Attributes** tab. In here, you will need to fill out the **District and Job Number** for ProjectWise to create the PDF file properly.

The *Project Manager*, *County*, *Length of Project* and *Route* will automatically fill out once the *Job Number* has been filled out. That information is pulled from the TMS Database from the job number that is selected. For Bridge plans fill out the Bridge Number to create the folder in the Contract Plans.

The screenshot shows a software window titled "i_project_2d_PowerGEOPAK [Unsaved default values] *". The "Attributes" tab is selected. The "Title Block Information" section is highlighted with a red box and contains the following fields:

* District Name	* Job Number	Project Manager
Kansas City	3P3108	HUFFMD
Route	Sheet #	Contract ID
13		
County		Project Number
RAY		
Bridge Number		

The "Project Information" section contains the following fields:

Project Surveyor	Grid to Ground Factor	Length of Project
		18.628000
Begin Township	Range	Section

* Required Fields For Contract Plans

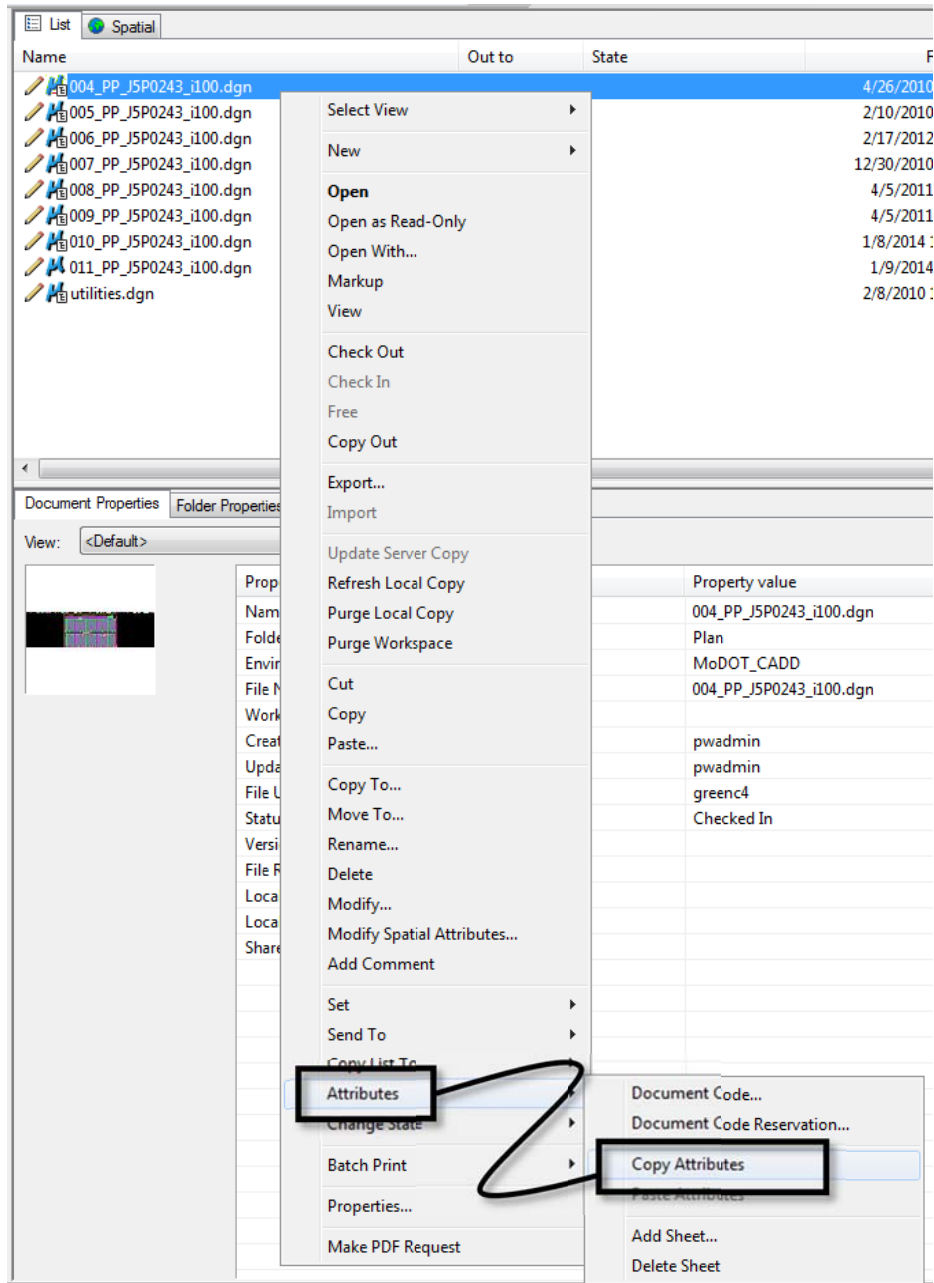
At the bottom, the "Save" button is highlighted in blue.

- Finally click the **Save** button at the bottom of the dialog box to save the attributes to the document.

Step 2 – Coping the Attributes to Multiple MicroStation Drawings

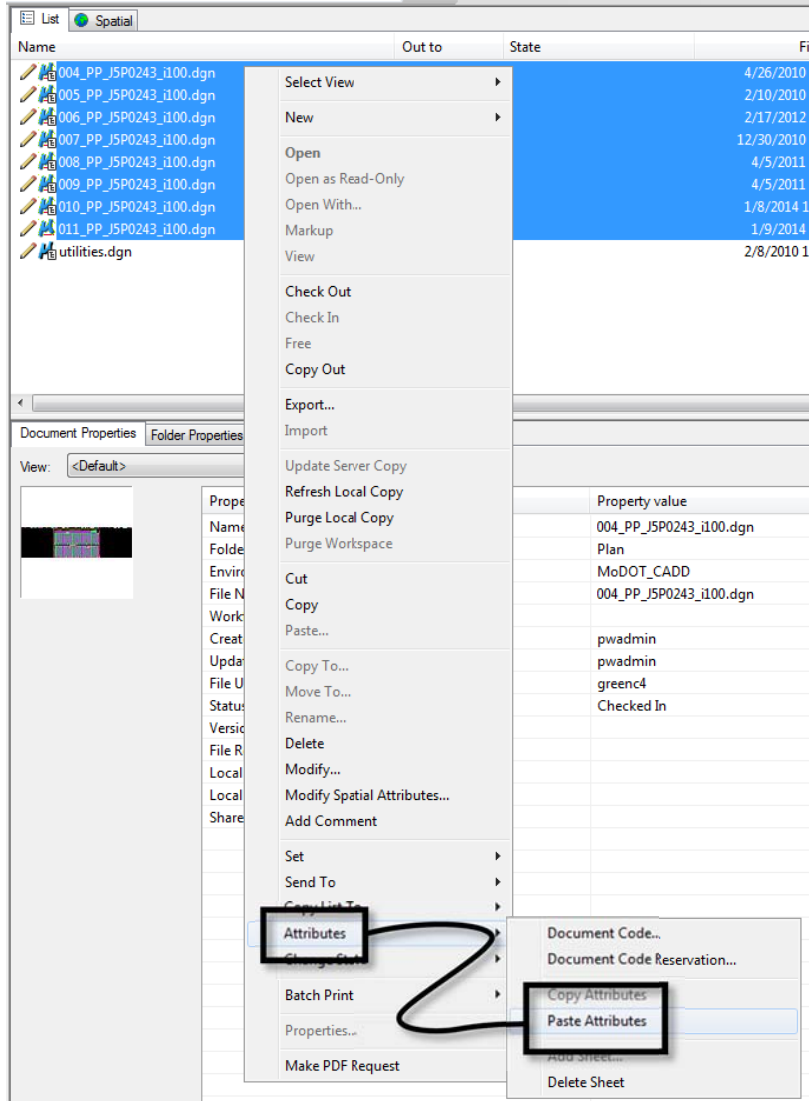
Once you have applied attributes to one of the MicroStation files, you can copy those attributes to multiple MicroStation files for that project.

- **Right click** over the document that has attributes assigned to it and select **Attributes - Copy Attributes** option.



- Next select the files that need to have attributes assigned to them.

- Finally, **right click** over the selected documents and select **Attributes - Paste Attributes** option. You will be prompted asking *"Do you want to override existing attributes?"*. That is when you will want to select **Yes to All** to paste the attributes to all the MicroStation contract plan files you had selected.

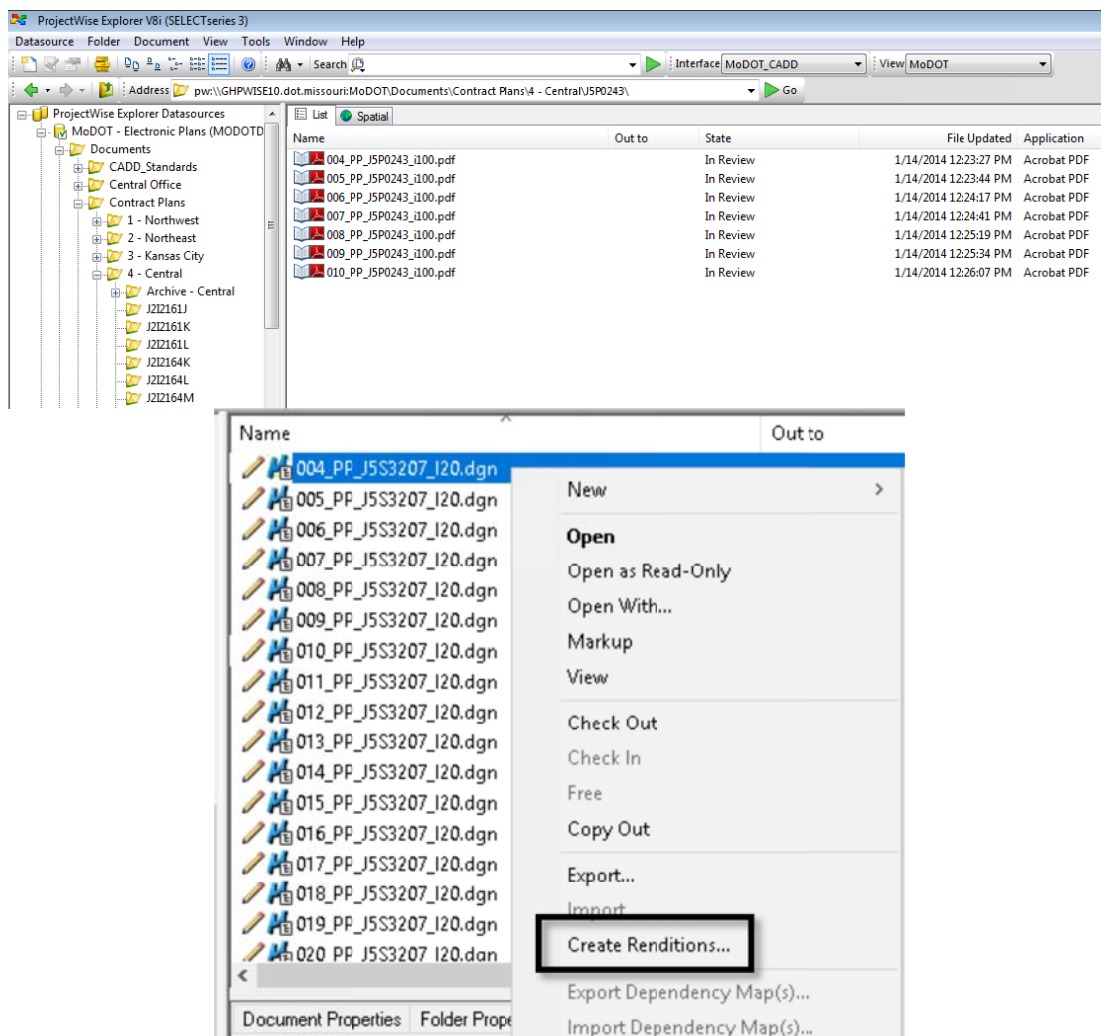


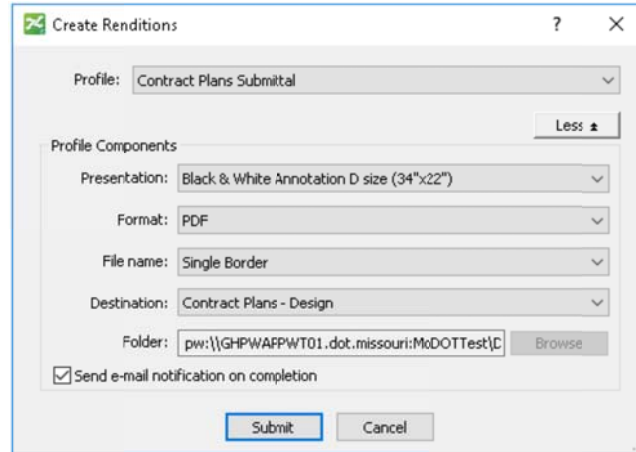
Step 3 – Creating Renditions

Once the MicroStation files for the job are completed and the attributes for the files are filled out in ProjectWise, you will need to use **Create Renditions** to create the PDF documents for the Project Manager to seal. The PDF documents for the job will be created under the **Contract Plans - District XX** and then the **job number** for the project. The Project Manager will then seal the PDF documents electronically, which then the Reviewer for the job will review the sealed PDF documents.

Remember that the **Attributes** will need to be assigned to the MicroStation contract plan files for the PDF creation to work.

- Select the MicroStation files that need to be processed into PDF files, **right click** over the selected files and select the option named **Create Renditions**.
- When Creating Renditions you cannot mix single border files with multiple border files. If you do only the first border of multiple border file will be created.





Here's some additional information about the **Create Renditions** dialog.

Profile – Controls which components are available to the users when submitting a rendition. Currently there is only one profile, but there will more in the future. Components will change depending on the profile.

Presentation – Controls the appearance of the PDF file in regards to size, color and line and text scale.

Format – Currently we are only outputting to a PDF file.

File name – There are two options to choose from based off the number of borders in the selected file and will control how the PDF file gets named.

Single Border – The PDF file will be name exactly like the dgn file. [*filename.pdf*]

Multiple Borders – Quantity / Cross-Sections sheets with more than one border in the file. The PDF files will be named *filename_1.pdf*, *filename_2.pdf*, *filename_3.pdf* and so on.

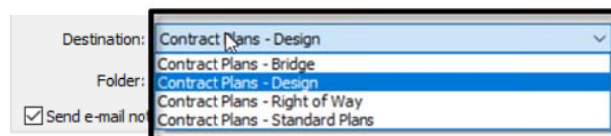
Destination – There are Four options to choose from base on which division.

Contract Plans – Bridge –PDF files will be located within a Bridge number below the project.

Contract Plans – Design – PDF files will be located at the root level of the project number.

Contract Plans – Right of Way –PDF files will be located within an Approved RW Plans Folder below the Project

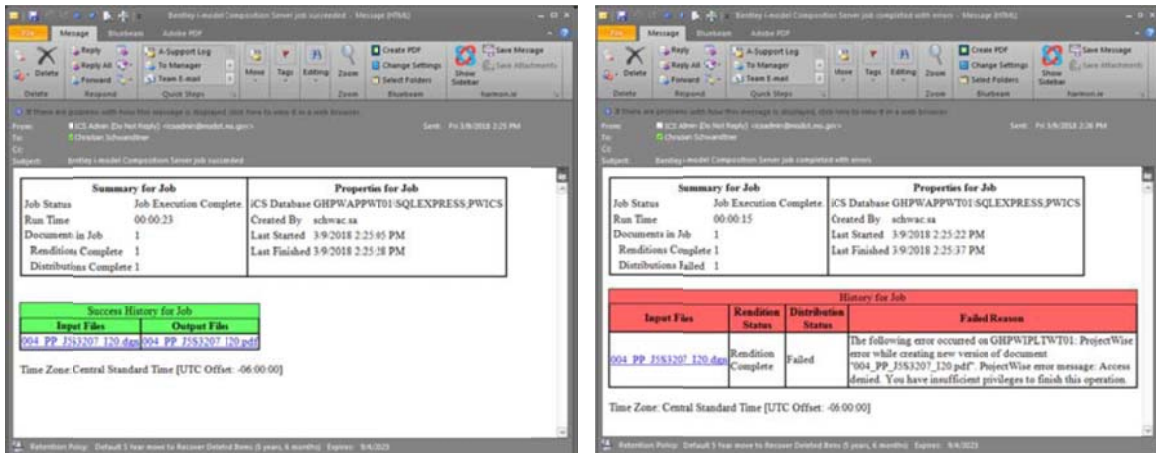
Contract Plans – Standard Plans –PDF files will be located within the Standard Plan Folder.



Folder – This is the location where the file will be placed.

Send e-mail notification on completion – you will get notified via email when the submittal is complete.

The email you receive will give you some information and links to the input and output files. If your email is green, that's a good thing. If it's red, that's a bad thing. The error could mean that the file already exists or the attributes dialog isn't filled out correctly.



- It may take a few minutes for your PDF files to generate, depending on how many requests are in the queue. Go to the **Contract Plans - District XX - Job Number** folder and you will eventually see the generated PDF files from the MicroStation files. The Project Manager can now review and seal those PDF files.

Step 4 – Making a Revised PDF File

Once the Project Manager reviews the generated PDF files to seal, there may need to be revisions done to the plans before he seals the PDF files. This is when you will make the revisions to the MicroStation files that the Project Manager is requesting and then generate new PDF files for the Project Manager.

- PDF files can now only be submitted once with the original name. If you have to resubmit the file again you will have to delete the existing PDF file before submitting. Users have access to delete files within the contract plans location in the review state if resubmittal is required.
- Once this has been done and the MicroStation files have been edited accordingly, you will do the instructions exactly like in **Step 3** to process the new PDF files.
- When the PDF files get generated, you will see the new PDF files under the **Contract Plans - District XX - Job Number** folder.

Making a Revised PDF File after the Project has been posted to the MoDOT Online Plans Room

Once the Project Manager reviews the Contract Plan PDF files and seals them, they are placed on the MoDOT online Plans Room web site for contractors to bid and estimate off the plans for constructing the project. But you may run into a situation where you need to make addendums or revisions to sheets if they find an error in the project plans. This will show you what needs to be done for those addendum or revision sheets for those sheets that needed to be corrected.

- A **Save As** will need to be done to the original dgn file with the name reflecting the proper file naming convention for Addendums as defined in the EPG. This ensures the PDF file corresponds to an actual dgn file. The link below will guide you on that format.
- The Designer or Technician will make the corrections in the MicroStation files or make additional sheets as need for the project revisions.
- Once this has been done and the MicroStation files have been corrected or added accordingly, you will do the instructions exactly like in **Step 3** to process the new PDF files.

NOTE: Use the link below to see more information on what needs to be added or done to the MicroStation files when you are making an addendum or revisions sheets.

<http://caddnet/index.php?title=Guidelines for Addendum or Revision Sheets>

The screenshot shows a web browser window with the address bar displaying "ProjectWise Support Training - CADD Wiki". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The browser's address bar shows "http://caddnet/index.php?title=Guidelines for Addendum or Revision Sheets". The browser's status bar shows "ProjectWise Support Training - CADD Wiki".

The main content area of the page is titled "CADD Support ProjectWise Support Material". Below this title is a "Support Documentation" section with a "Contents" link. The "Documentation by Topic" section is titled "Contract Plans" and contains a list of links:

- PDF Generation Process for Final Contract Plans, Approved R/W and Certified R/W Plans
- Issue With Logical Name In Border Files
- How to Properly Prepare Files for Contract Plans
- Questions and Answers on Electronic Plans
- Export a Completed Project For Construction
- Guidelines for Addendum or Revision Sheets**
- File Naming Convention for Contract Plan Drawings

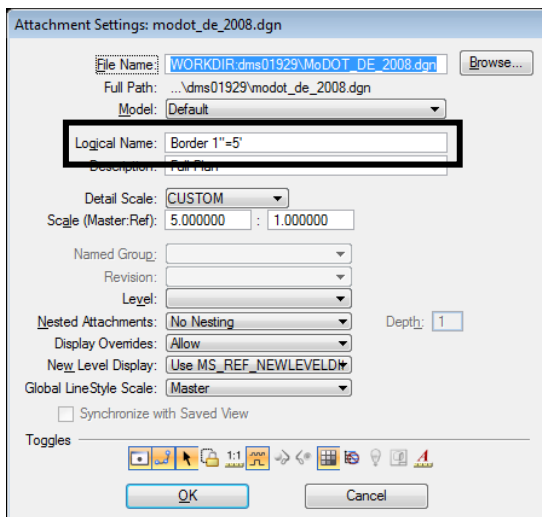
The link "Guidelines for Addendum or Revision Sheets" is highlighted with a black box. The left sidebar contains a "navigation" menu with links to "Main Page", "Project Wise", "MicroStation", "GEOPAK Road", "GEOPAK Site", "GEOPAK Survey", "GIS Information", "GPS Information", "Drainage Apps", "Other Design Apps", "PC 'How To's'", "Training", "Electronic Plans", and "Construction". There is also a "links" section with a link to "CADD Staff".

Proper preparation of MicroStation files prior to making PDF files for signing

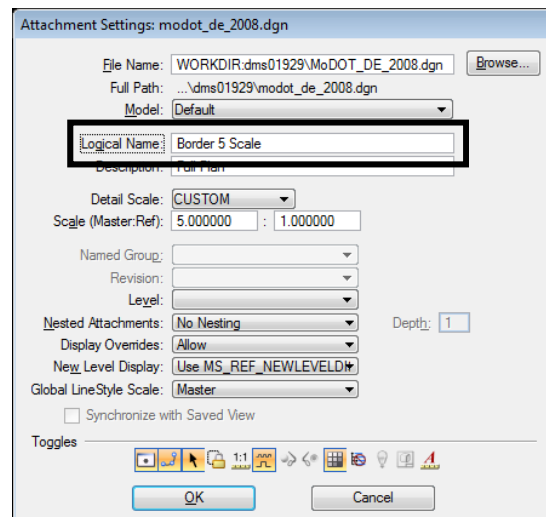
There are a few items that need to be reviewed on the MicroStation files prior to going through with the “Make PDF Request” process. This will insure that the PDF files are created properly, created in the correct location, and help avoid possible delays that may cause your files not to process or even lock the system down to where no one can process files.

- Make sure **Attributes** are filled out properly in Projectwise for the MicroStation files being processed into PDF files (as stated in the beginning of the section).
- When working with Cross Section sheets, there is a **maximum** 50 border sheets for the “Create Renditions” routine. Anything that exceeds 50 border sheets shall be split onto another cross section sheet file.
- Any blank border files (whether they are displayed or not) will be created into a PDF files when using the “Create Renditions” routine in ProjectWise. Please **delete** any border sheets **not used** (like in cross section sheets) in the project. This will allow the PDF generation process to just process the sheets that are needed for the project and also eliminates the Project Manager to manually delete all unused border sheets.
- Detach all unused reference files and unused raster images attached to the MicroStation files prior to running the “Make PDF Request” routine. The performance of the “Make PDF Request” process drastically slows down and takes longer to process the PDF files when there are unused reference files or raster images attached to the files. This is because the “Make PDF Request” routine downloads all the files attached to the file that is being processed.
- When attaching a border to the MicroStation file, do not have the symbols of ‘ and “ (feet and inches) in the **Logical Name** field. This will cause the PDF file not to generate from the MicroStation file.

INCORRECT



CORRECT



Section 5

Best Practices in the MoDOT Environment

Topics

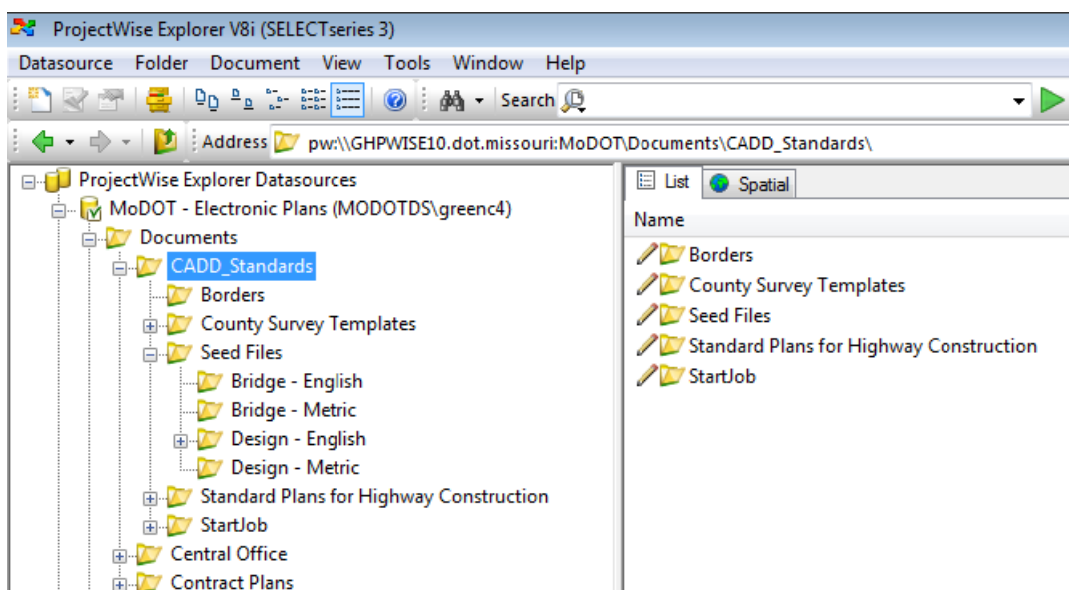
- MoDOT's Folder Structure
- Importing Folders and Files into ProjectWise
- Exporting Folders and Files out of ProjectWise
- Sets for MicroStation Files
- Clean Up Procedures
- Changing Application Associations

MoDOT's Folder Structure in ProjectWise

The folder structure here at MoDOT for ProjectWise has been broken out into many subfolders to make management and security of the folders and files easier to maintain. It also makes assigning permissions to folders easier for the ProjectWise Administrator.

CADD Standards

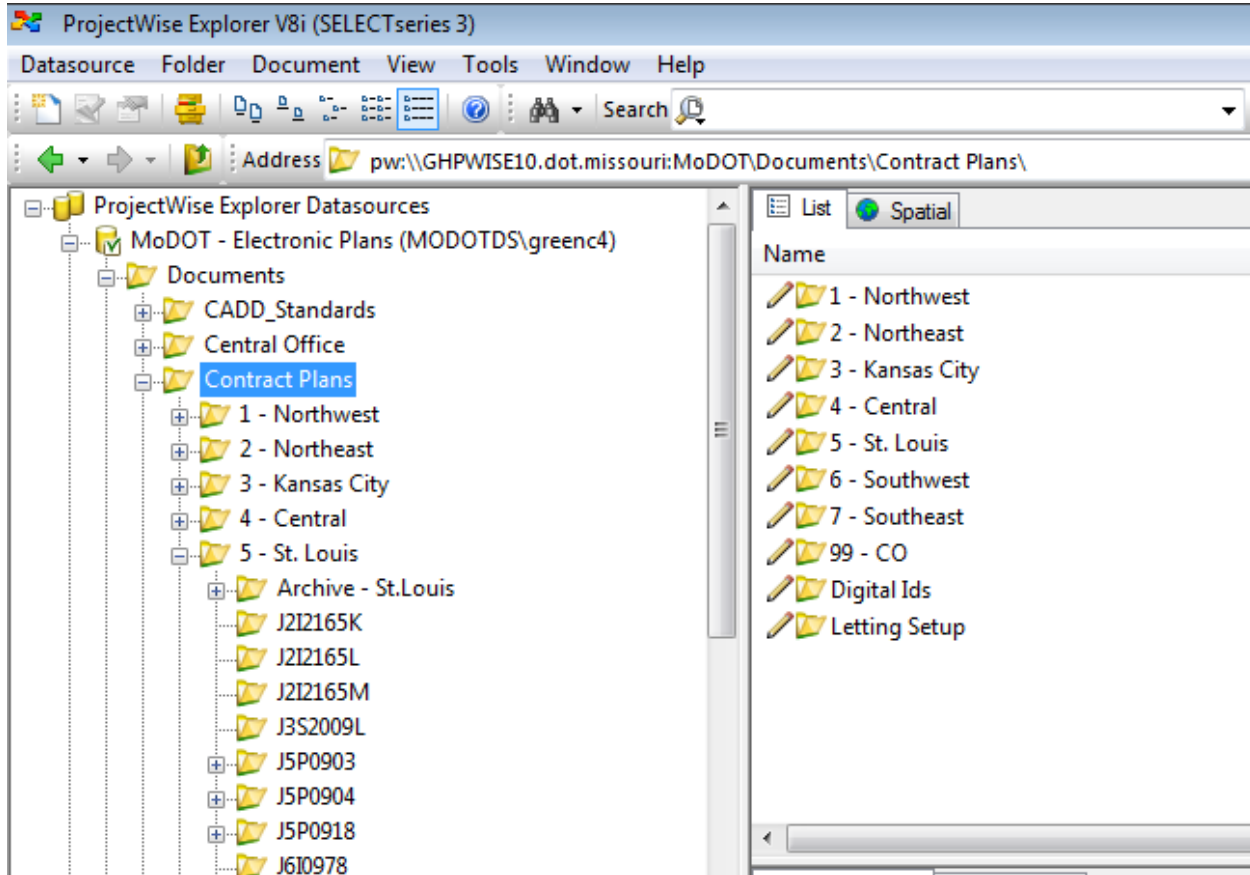
CADD Standards folder contains all the standard files like the border file used in MicroStation, seed files used in MicroStation, standard plans for highway construction, etc. that can be used in the plans or used as a reference to gather information about a certain object or procedure. All the files and folders under the *CADD Standards* folder and subfolders are read-only for everyone. This insures the files are kept the same for everyone to use at MoDOT.



Contract Plans

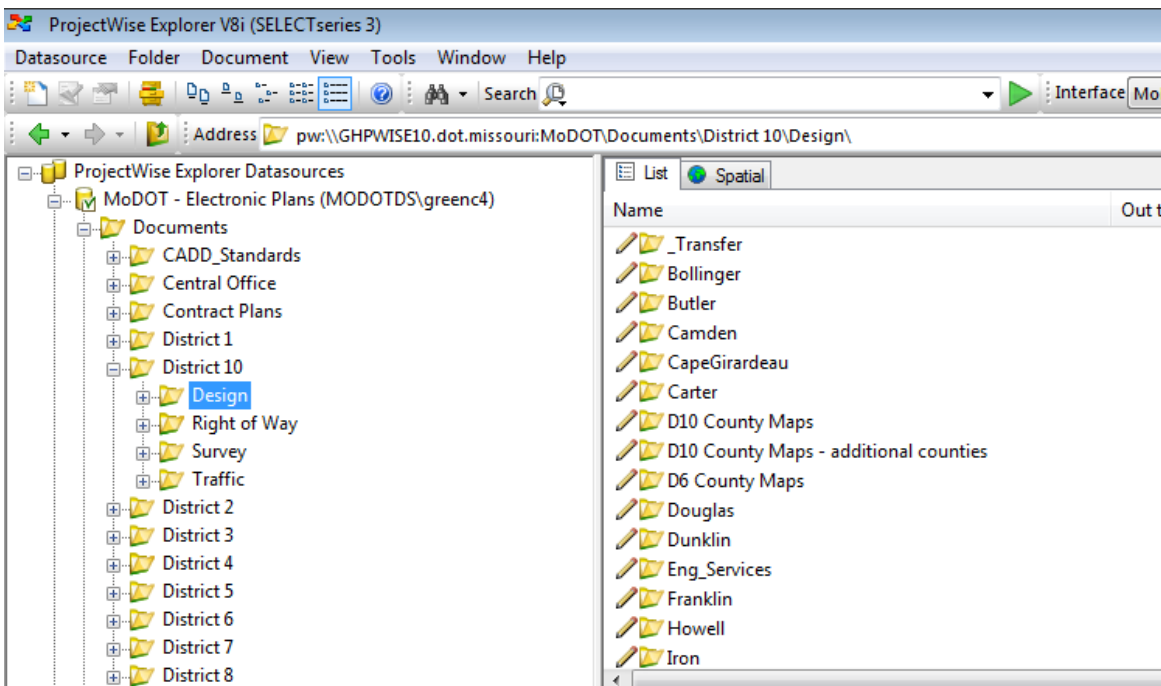
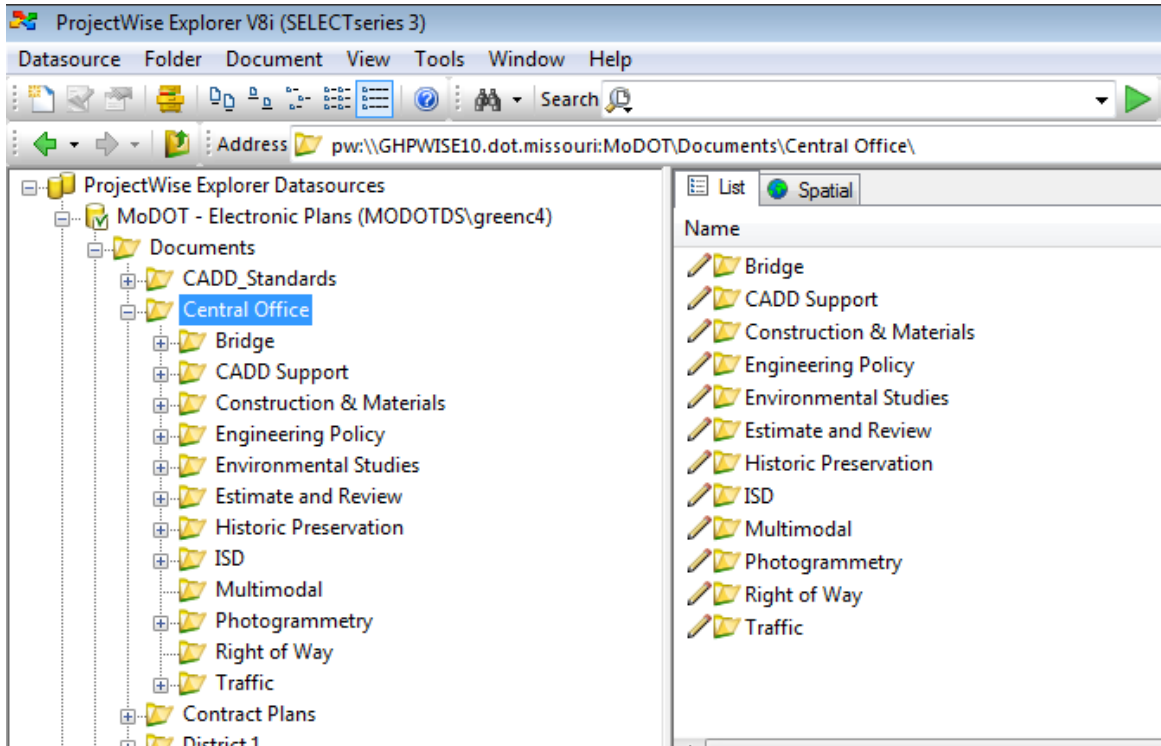
Contract Plans folder contains all the PDF files that are created from the MicroStation files for highway plans and bridge plans. Other PDF files like the JSP (Job Special Provisions), Bid Book, etc. may also be placed under the job number under the *Contract Plans* location. The *Contract Plans* folder is normally read-only for everyone at MoDOT, except individuals that need to sign and seal the PDF files or need to review the sealed PDF files.

Note: Refer to [Section 4](#) for details on how the PDF files get created from the MicroStation files.



Central Office & District XX

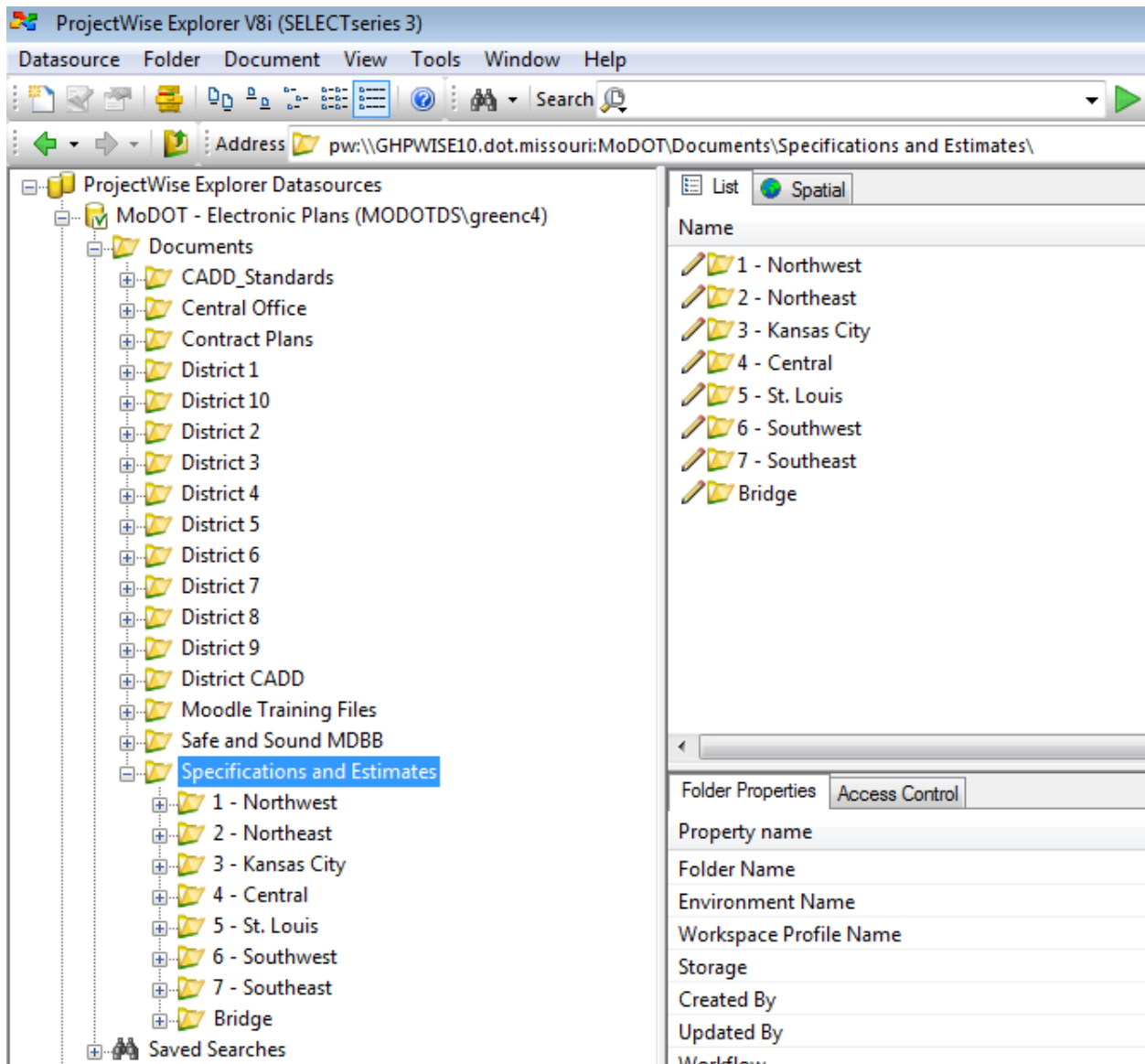
Central Office and District XX folders are the locations where you will store the files for the project or job you are working on. You are given read-only access or write access to certain locations, depending on what locations need access to. These folders will also be broken down into subfolders (divisions, counties, job numbers, etc.) to make management and security of the folder/files easier to maintain.



Specifications and Estimate

Specifications and Estimate folder structure is for the storage of job related files that will be used for the bidding and estimate of the project. Example of files that are stored here are design exceptions, transmittal memo, asbestos reports, work day study reports, conflict of interest, D12 Checklist, and many other documents that pertain to the particular project. This folder structure will also be broken down into subfolders (district, job numbers, etc.).

Only ProjectWise users that have the ability to sign and seal PDF files will have access to create job folders in this location. Once the job folder has been created though, all users have write access to create or place job related documents in this location.

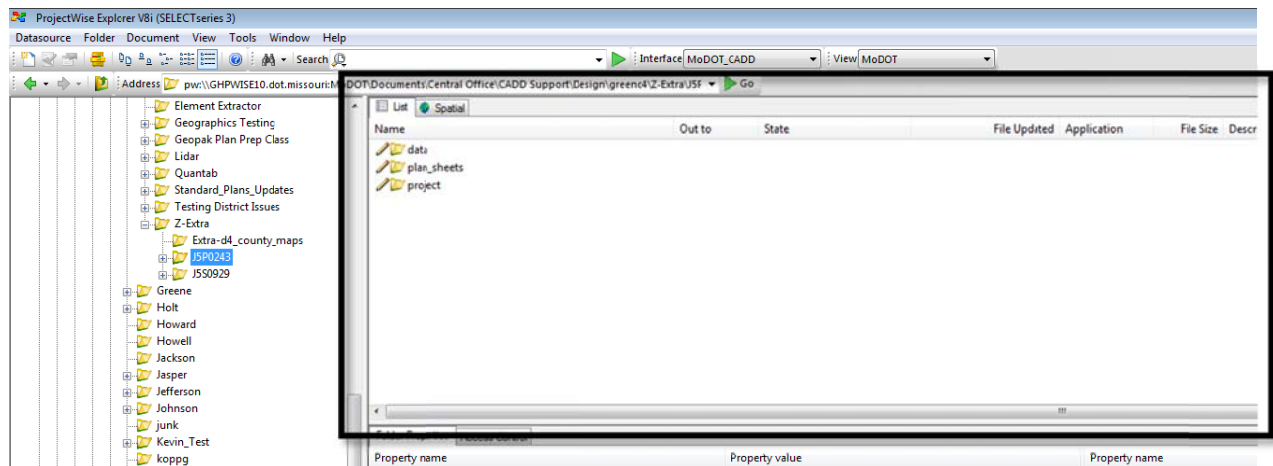


Importing Folders & Files into ProjectWise

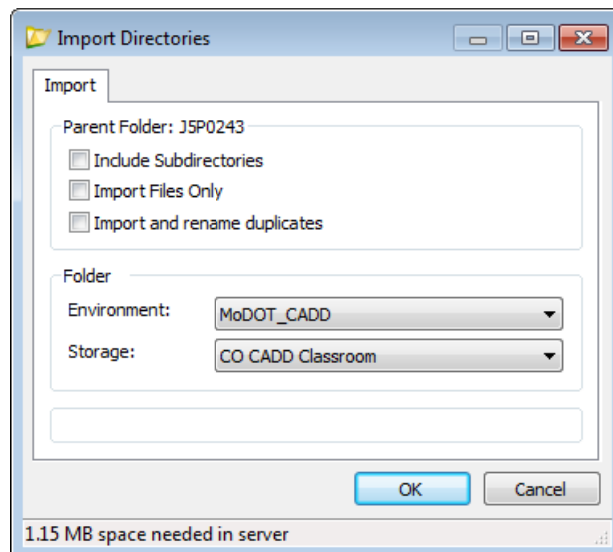
Folders and files that are located on a network drive, local hard drive, or external hard drive can be brought into a ProjectWise location that you have write access to.

Importing Folders

- Select the folder in ProjectWise that you wish to place the folder that is outside of ProjectWise into.
- Open Windows Explorer and select the folder that you want to place into ProjectWise. It may be helpful to get your monitor setup to see both ProjectWise Explorer and Windows Explorer.
- **Drag** the folder from Windows Explorer into the storage area (highlighted below) from the previously selected folder in ProjectWise.

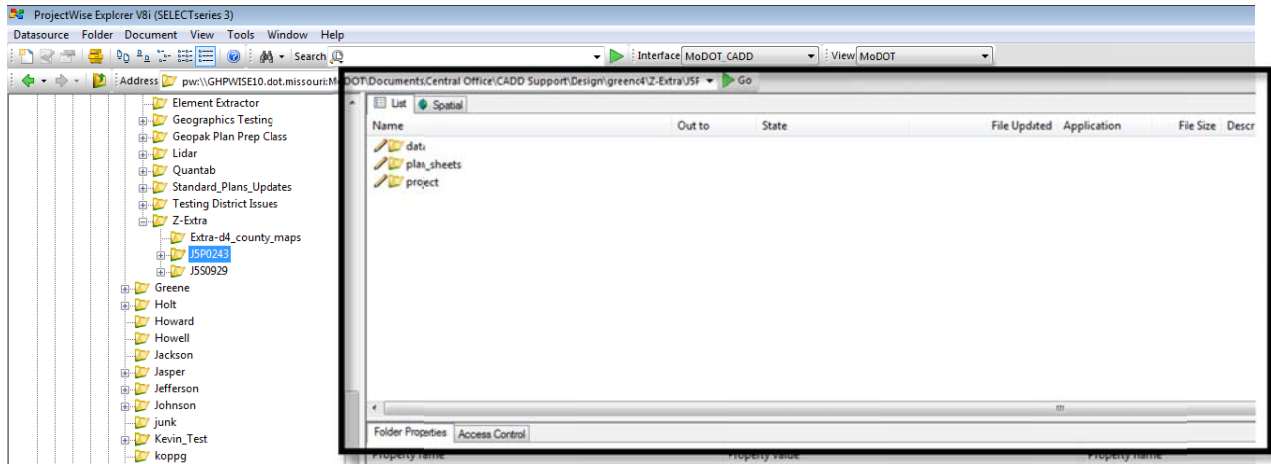


- Toggle the options off/on as needed in the *Import Directories* dialog box. Select **OK** to import the folder into ProjectWise.



Importing Files

- Select the folder in ProjectWise that you wish to place the files that is outside of ProjectWise into.
- Open Windows Explorer and select the files that you want to place into ProjectWise. It may be helpful to get your monitor setup to see both ProjectWise Explorer and Windows Explorer.
- **Drag** the files from Windows Explorer into the storage area (highlighted below) from the previously selected folder in ProjectWise.



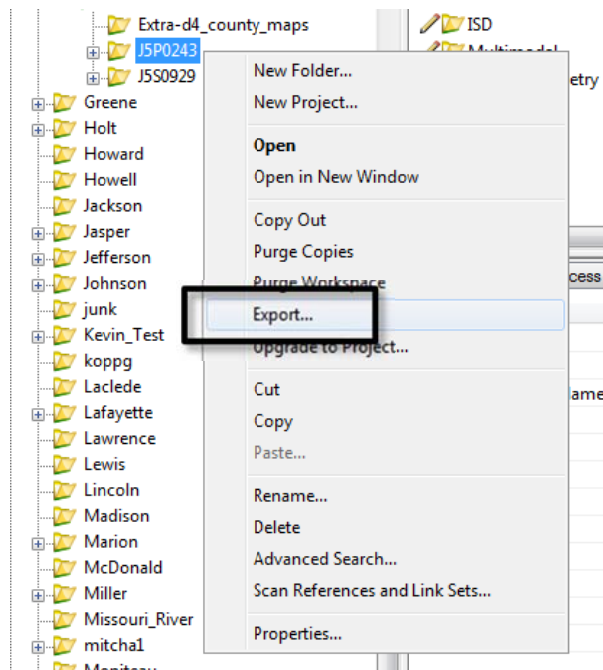
- The files will then be copied from the Windows Explorer location into the ProjectWise location.

Exporting Folders & Files out of ProjectWise

Folders and files stored in ProjectWise can be exported out to a network drive, local hard drive, or external hard drive. This is done when someone doesn't have access to ProjectWise and they need access to files stored in ProjectWise to look at. This will also be done when the design and detailing process of the project has been completed and the project information needs to be placed out to the MoDOT Project Office that is handling the project, since they are not connected to ProjectWise.

Exporting Folders

- **Right click** over the folder in ProjectWise that you need to export out and select **Export**.

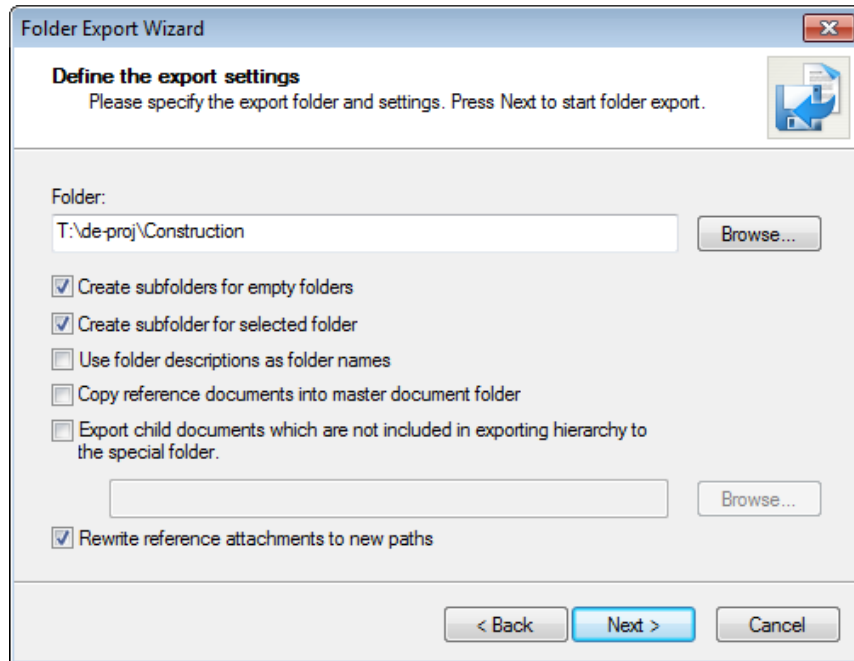


- You will have the options to *Export* or *Send to Folder*. Select the **Send to Folder** option and select **Next**.



- Browse to the network location that you need to export the folder to and also toggle off/on the options as needed so the folder gets exported properly. Click **Next** to export the folder.

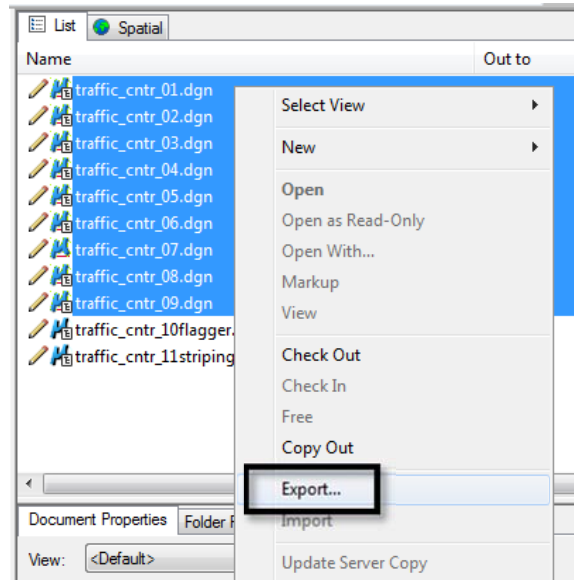
NOTE: For Design projects that need to be exported out of ProjectWise to be placed on the Project Office's T:/drive, fill out the dialog box exactly as shown below. This will insure that everything gets exported properly and all reference files will be attached when they open the files outside of ProjectWise.



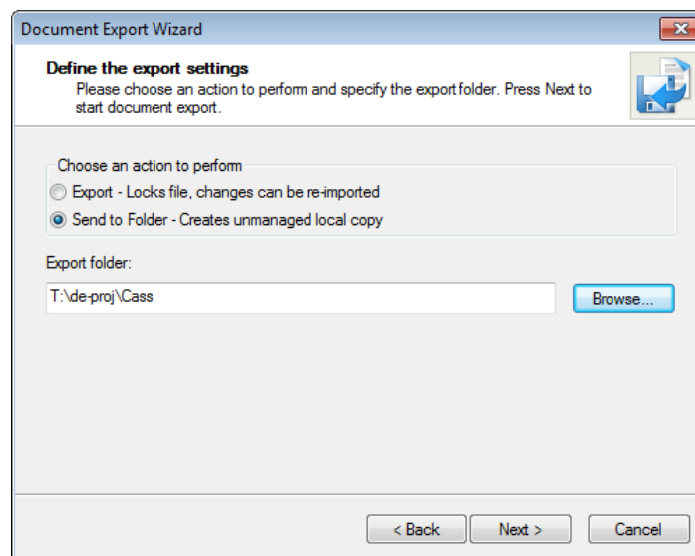
- Click **Finish** after the export has completed.

Exporting Files

- **Right click** over the selected files in ProjectWise that you need to export out and select **Export**.



- Select **Next** in the *Document Export Wizard* dialog box.
- You will have the options to *Export* or *Send to Folder*. Toggle on the **Send to Folder** option. Browse to the location of which you desire to export the files out to. Select **Next** to export the files



- Finally select **Finish** once the export has been completed. The files are now copied from ProjectWise to the designated network location.

Logical Sets for MicroStation Files

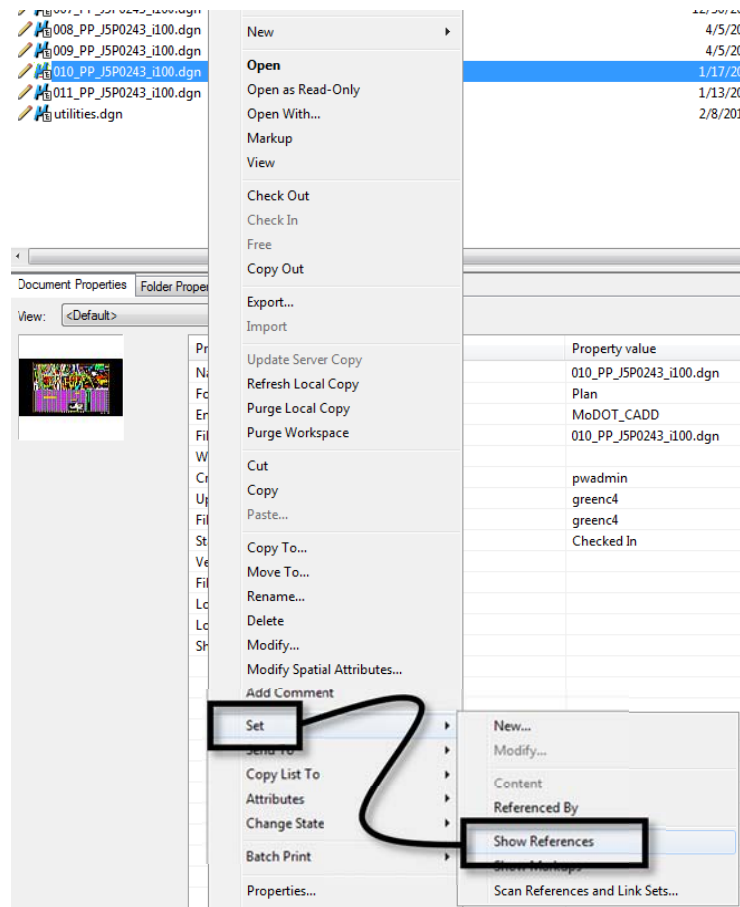
A **logical set** is any document, but particularly DGN and DWG documents, which has other documents attached to it. These attachments are referred to in MicroStation as **references**. The document to which other documents are attached is also referred to as the master document of a logical set. The document icon for a master document will have a hierarchical tree symbol in the lower right corner of the icon.

The actual referencing of one file into another is performed in your editing application, such as MicroStation or AutoCAD. For example, when you open a DGN or DWG document from ProjectWise and then attach other ProjectWise documents to it in MicroStation or AutoCAD, checking in your changes to the master document automatically creates the logical set in ProjectWise.

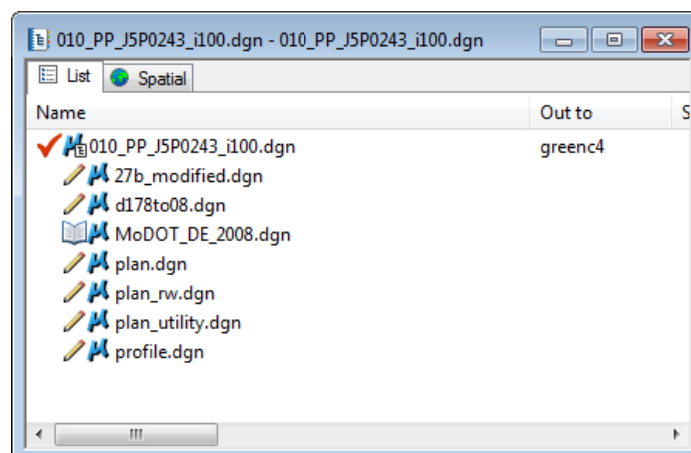
When you are in integrated MicroStation and you attach a shapefile to your DGN, ProjectWise will create two sets upon check in of the master DGN — one for the relationship between the master DGN and the attached shapefile, and one for the relationship between the shapefile and its own related files. Similarly, when you attach a raster file to your DGN, and that raster file has its own related files (whether a world file or some other file(s)), ProjectWise again will create two sets upon check in of the master DGN — one for the relationship between the master DGN and the attached raster file, and one for the relationship between the raster file and its own related file(s).

Viewing attached reference files to a MicroStation file

- Right click over the MicroStation file and select **Set >> Show References**.

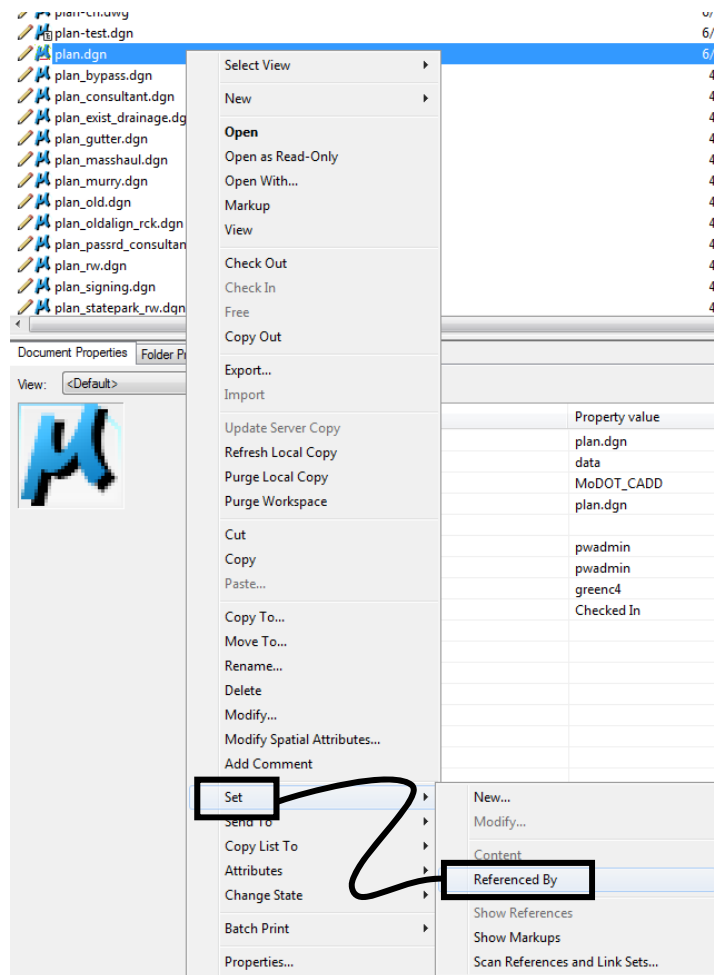


- You will now see the reference files that are attached to the master file, given that the reference files are stored within ProjectWise. If there are reference files attached to the master file that are not stored in ProjectWise, those files will not show up in the listing.

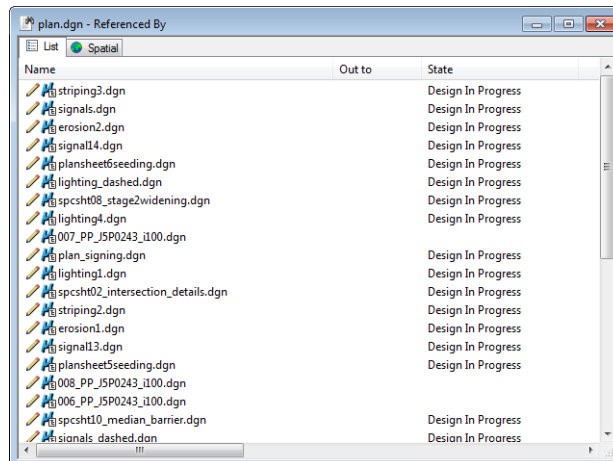


Viewing what files are using a MicroStation file as a reference file

- Right click over the MicroStation file and select **Set >> Reference By**



- You will now see the files that are using this MicroStation file as a reference file within it.

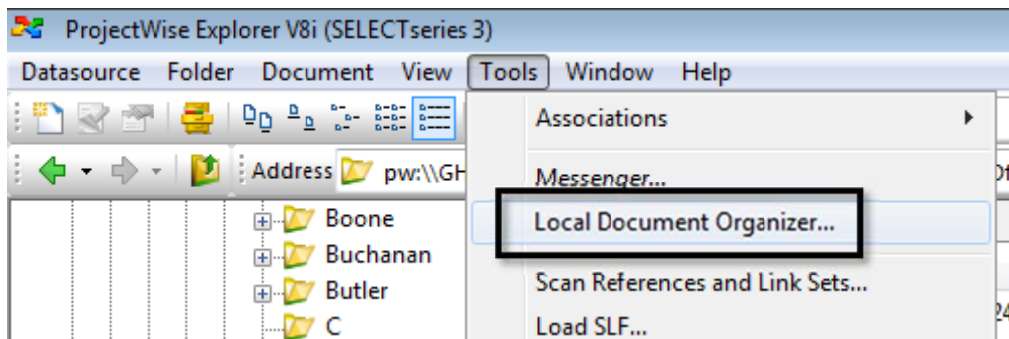


Clean Up Procedures

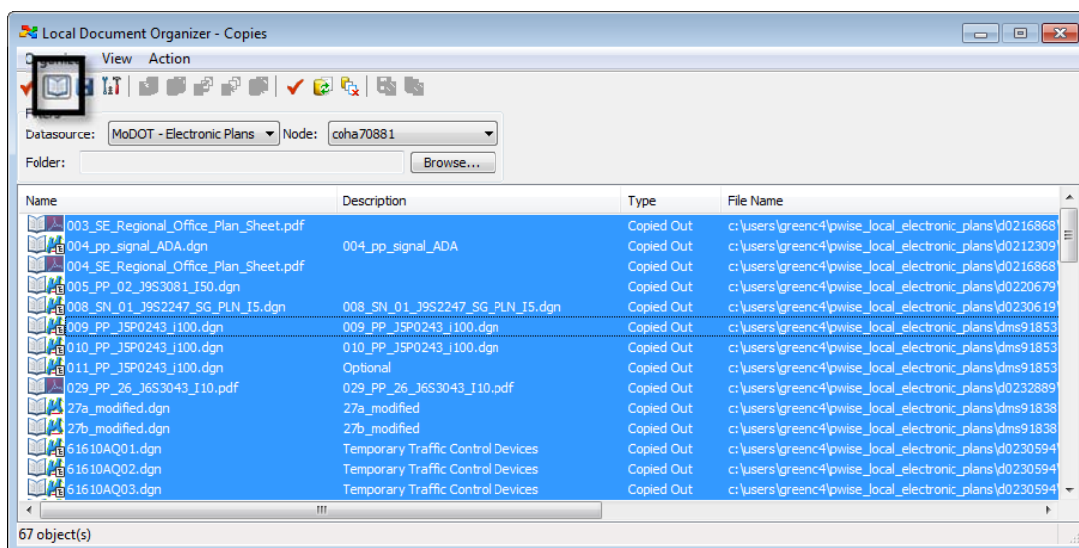
A good habit to do in ProjectWise is to occasionally clean up the local copies on the computer and deleted the local folders that are created when opening files in ProjectWise on the computer. This can be done at any time and should also be done if you are having issues with ProjectWise not opening up the files properly. The Local Document Organizer will allow you to purge (delete) the local copies on the computer, but you will need to use Windows Explorer to remove the folders that are created when opening files through ProjectWise on your computer.

Using “Local Document Organizer”

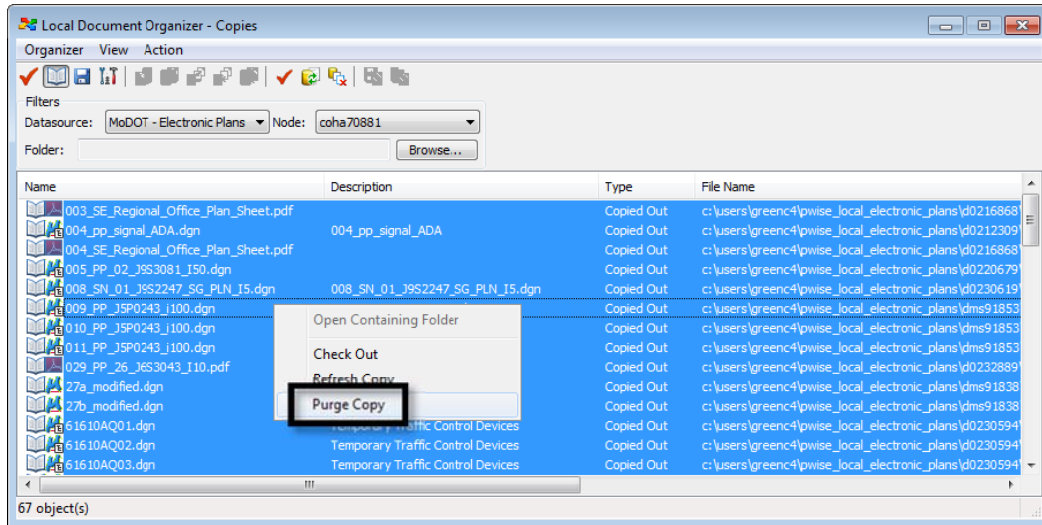
- **Make sure you don’t have any files open in ProjectWise and check in all files that previously had been opened or checked out. This will help prevent accidental loss of data with the files in ProjectWise.**
- From the **Tools** pulldown in ProjectWise, select **Local Document Organizer**.



- Select the **Copies** icon in the dialog box. In the area where you see all the files that are copied out to your local machine, you will need to select all the files in that area (select one file and then click Ctrl-A on the keyboard).



- **Right click** over the selected files and choose the **Purge Copy** option. This will now go through and purge the local copies off of your machine.



Deleting Local Directory Folders on Local Computer

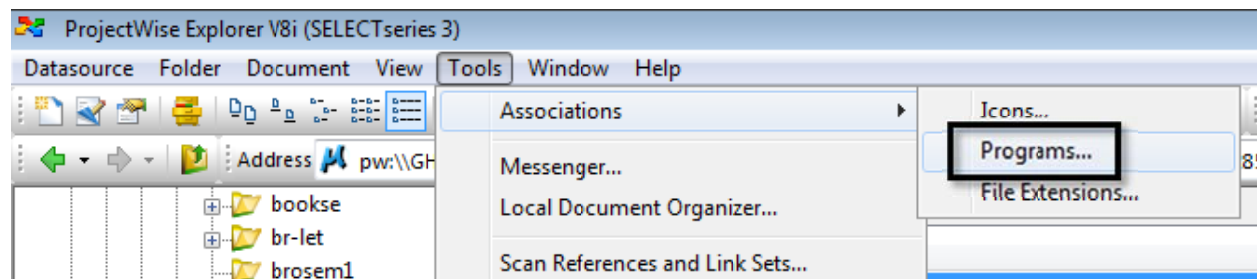
- Open **Windows Explorer** and navigate to this location:
 - **C:\Users*Your Userid*\pwise_local_electronic_plans**
- Select all the folders under the **pwise_local_electronic_plans** folder and delete those folders.

Changing Application Associations

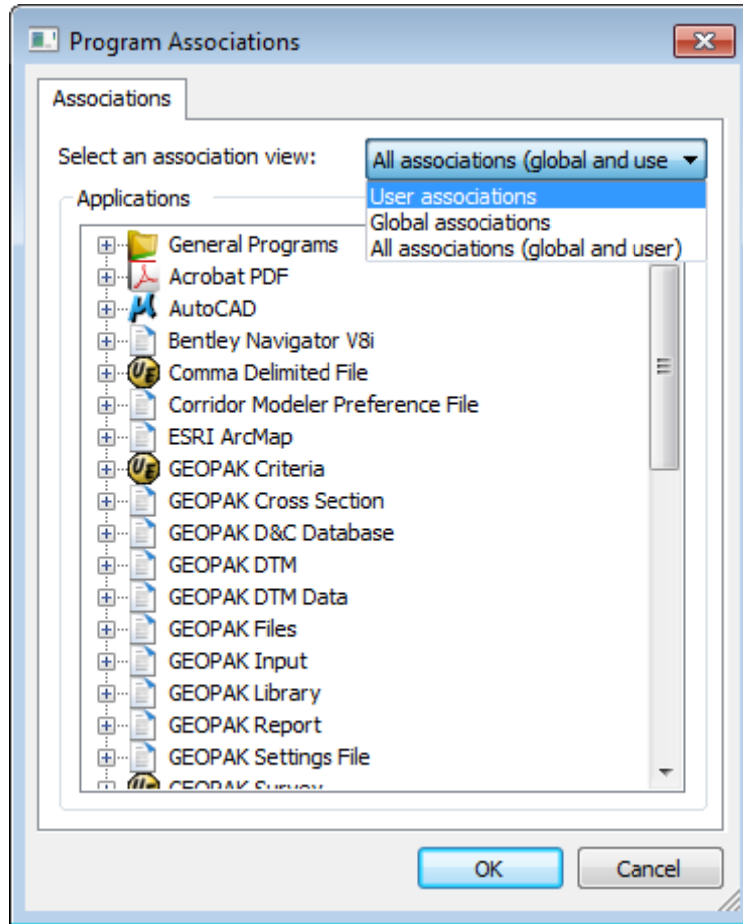
The files stored in ProjectWise are opened by the program that is assigned to the application as defined by the ProjectWise Administrator. But there are situations where you want the files to open up using a different program. This is where you can define a user association to override the global association that is defined by the ProjectWise Administrator.

Changing the Association

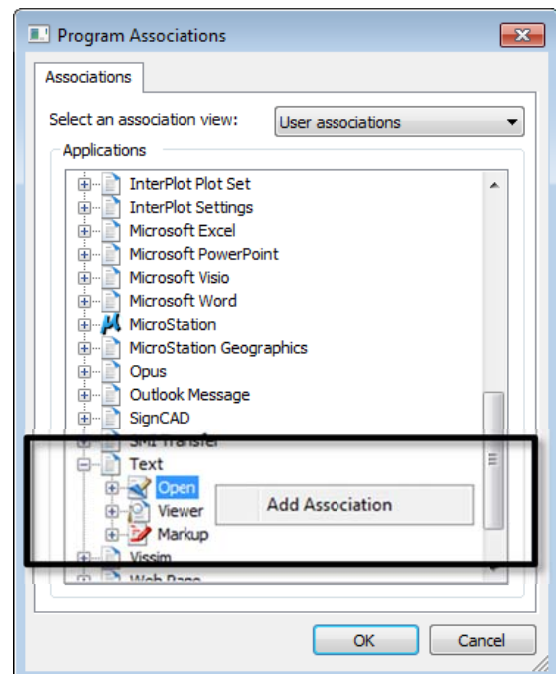
- In ProjectWise, navigate to the **Tools>>Association>>Programs**.



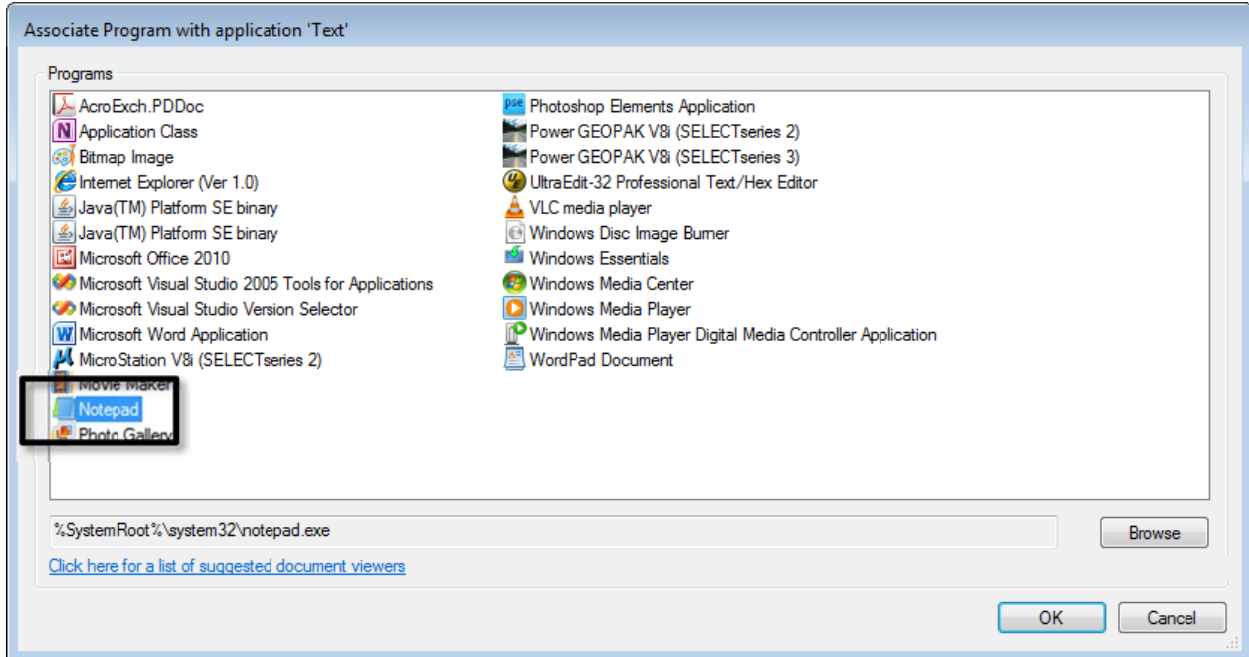
- Change the association view to **User associations**.



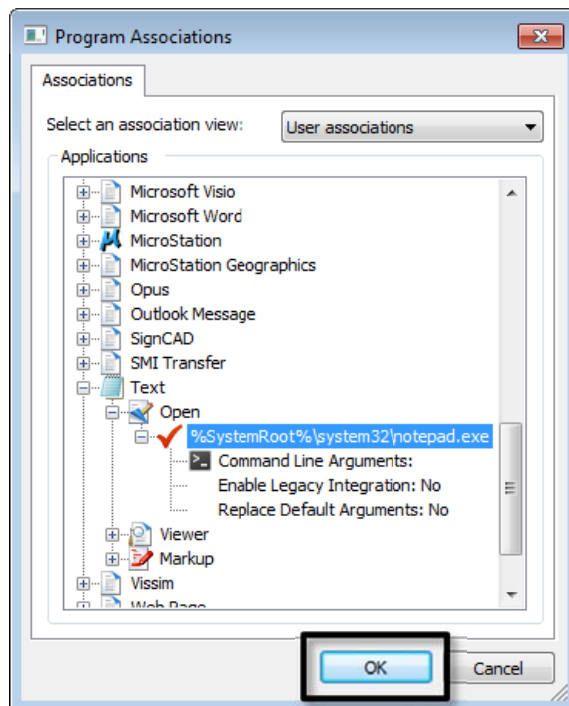
- Scroll through the list of applications and select the one you wish to change (we will use **Text** for this example).
- Expand the application (**Text**) by clicking on the “+” symbol.
- **Right click** over the **Open** option and click on **Add Association**.



- Select the program that you need to association to the application. If the program is not listed, you can browse for the program by clicking the **Browse** button and navigating to the location of that program. Once the program has been selected, click **OK**.

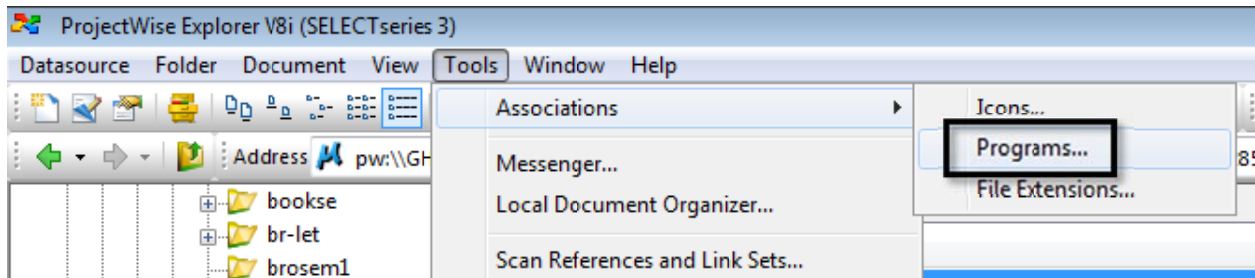


- The Program that you selected will now be associated the application that you defined. Click **OK** to accept the changes.



Removing an User Association

- In ProjectWise, navigate to the **Tools>>Association>>Programs**.



- Change the association view to **User associations**.
- Scroll through the list of applications and select the one you wish to change (we will use **Text** for this example).
- Expand the application (**Text**) by clicking on the “+” symbol.
- Expand the **Open** option by clicking on the “+” symbol.
- **Right click** over the program associated to the application and select **Unassociate** to remove the user association for that application.

