# Using MicroStation with ProjectWise

There are a few changes to how MicroStation operates when used in the ProjectWise environment. When MicroStation is integrated with ProjectWise, file operations such as *File > Save As*, *File > Open*, and a *File > New* will default to the folder structure on the ProjectWise server. Click on the *Cancel* button in the ProjectWise environment dialog box and the regular Windows system dialog box will appear allowing you to use files located on your local or network drives.

This chapter will cover the following additional MicroStation features that operate differently when integrated with ProjectWise:

♦ Creating a New MicroStation file

♦ Integrated Title Blocks

♦ Attaching Reference Files

♦ Linking Word and Excel files to MicroStation

## Creating a New MicroStation File

There are several methods to create a new drawing file, each with their respective advantages and disadvantages. The easiest method is illustrated in the video **Creating a New MicroStation File**.

*Note:* It is a common mistake to try and use the *New>Document* command from the ProjectWise *Document* pull-down menu. *Do not use this method*. All this will do is create a place holder for a future file and does not actually create a file that can be used by MicroStation.

In addition to the method shown in the video, you can also use the *File>New* command from the MicroStation pull down menu. Using this method will require you to:

♦ Choose a seed file

♦ Choose the folder in which to create the new file

♦ Once the file is created, use the *Attributes* tab in the *Properties* dialog box to populate the attributes for the file

## Integrated Title Blocks

Prior to ProjectWise, all the information in the title block of a drawing had to be entered by hand. The video **Editing Title Block Attributes in ProjectWise** illustrates how to update much of the title block information automatically using ProjectWise.

In order to use title block integration, you must use special title blocks containing MicroStation tags that are linked to ProjectWise attributes. These title blocks are located in the *\Documents\Seed_Files* folder under the following names:

♦ *PW-Plan-Sheet.dgn*

♦ *PW-PnP-Sheet.dgn*

♦ *PW-Title-Sheet.dgn*

By using these seed files, your drawing will be created to be used as shown in the video and the title block will be automatically populated with the project data.

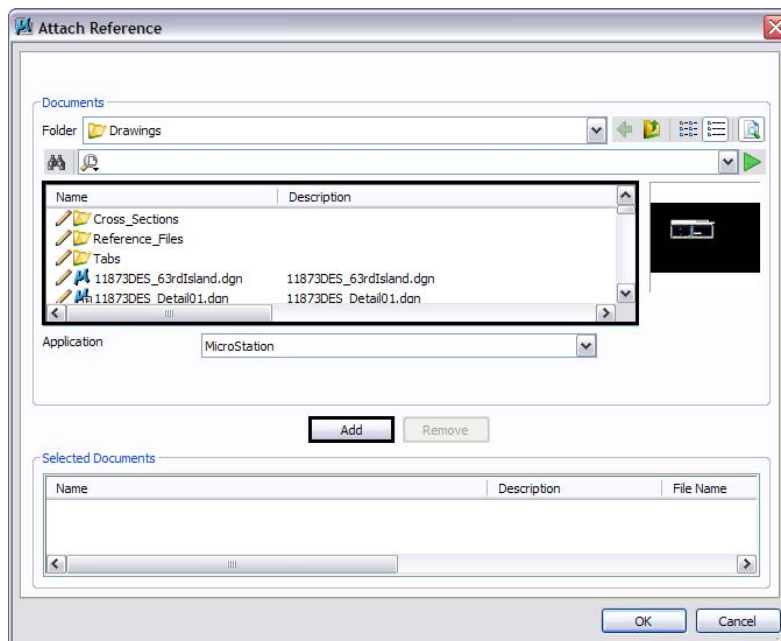# Reference Files

## *Attaching Reference Files*

Attaching a reference file in MicroStation using ProjectWise is not much different than the method you are already used to. However, you will notice a few differences.

To attach a reference file to a drawing using ProjectWise:

1.  Open a drawing you wish to attach a reference to.

2.  Go to **File > Reference** or click on the *References* button [icon] ▼ to open up the *References* dialog box.

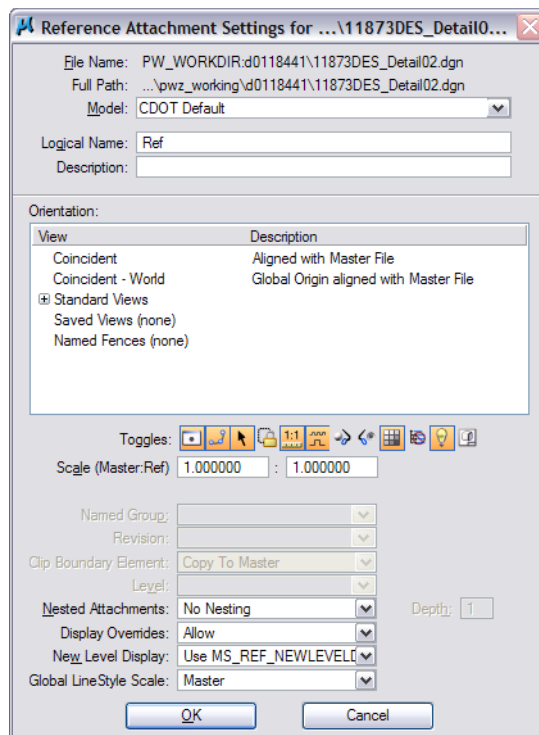3.  From the *References* dialog box choose **Tools > Attach** or select the *Attach References* button [icon].

The first difference is that when attaching a reference file the *Attach Reference* dialog box will default to look for files on the ProjectWise server.

4.  Browse to the location of the reference file and select the file(s) you wish to attach.

5.  Click the **Add** button to add the file(s) to the list of selected documents at the bottom of the dialog box.
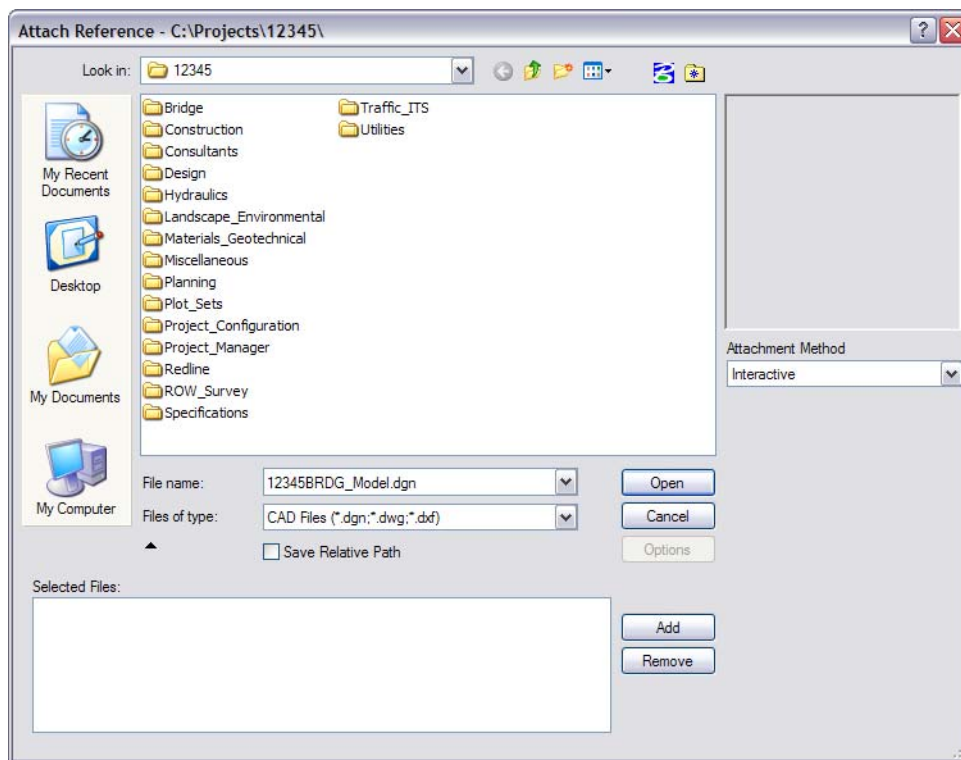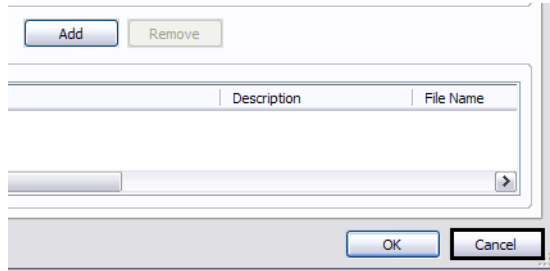


6.  Click **OK** in the *Attach Reference* dialog box.

7.  The normal MicroStation reference attachment window will display as shown below to allow you to modify the reference attachment settings as desired.

8.  If you click the *Cancel* button when the Attach Reference dialog box first appears, a second dialog box will display allowing you to attach a reference file from a local or network drive.
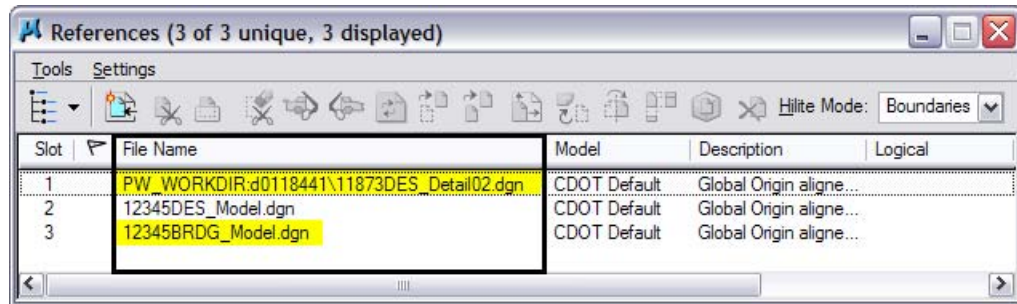




**Note:** In general, reference files should be attached from a ProjectWise folder. However, ProjectWise allows you to attach reference files from ProjectWise and a local or network drive to the same master file.
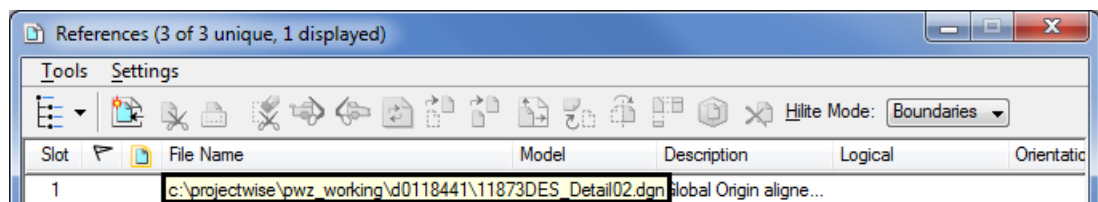
The second difference is how reference files are listed in the References dialog box. Once a reference file is attached to a drawing, there are a couple of ways to tell where a file is being referenced from.

9.  If a file is being referenced from a ProjectWise folder the information in the *File Name* column will begin with the prefix *PW_WORKDIR:* followed by the working directory (a folder ID that is assigned by ProjectWise) and finally the filename.

10. If a file is being referenced from a folder on a local or network drive the information in the *File Name* column will only consist of the filename.

An examples of these reference types are shown below.

In addition to how the files are listed in the dialog box, hovering over a file will display the full location and path of the file as shown below.

### Opening Files with References Attached

When you attempt to open a file that contains references, the *Select Reference Documents* dialog box will display. There are three areas to be aware of in this dialog box.

- ♦ *Read Only toggle* - Toggle this option on if you only want read permissions to the reference file(s) attached to the file you are accessing. When this option is toggled on, Check Out and Copy Out will be disabled.

- ♦ *Check Out/Copy Out* - The Check Out option will make the reference file read only to other users while the Copy Out option will allow other users write access to the reference file

- ♦ *Status* - The Status column indicates whether a reference file stored on your local machine is up-to-date or needs refreshing

The information shown when hovering over a file attached from the ProjectWise server is the location where the reference file is copied to your local machine.

Another benefit of referencing files from within ProjectWise it that ProjectWise keeps track of files using a file ID. This functionality allows you to move a reference file from one ProjectWise folder to another without loosing the reference file attachment.
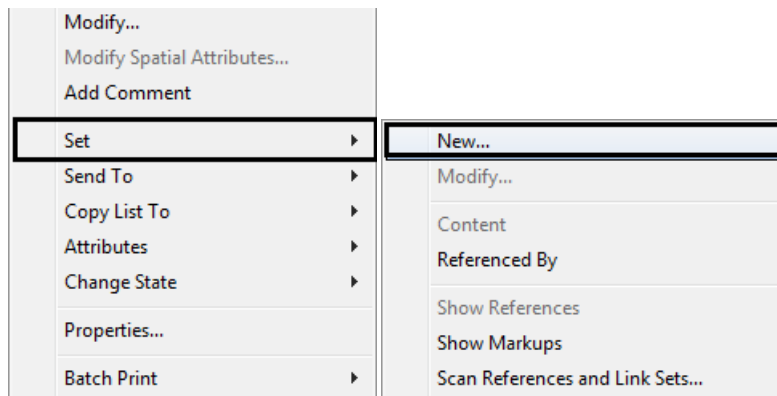
> *Note:* This is only valid for reference files attached from a folder on the ProjectWise server. If you move a reference file that is located on a local or network drive, that reference file will need to be reattached.

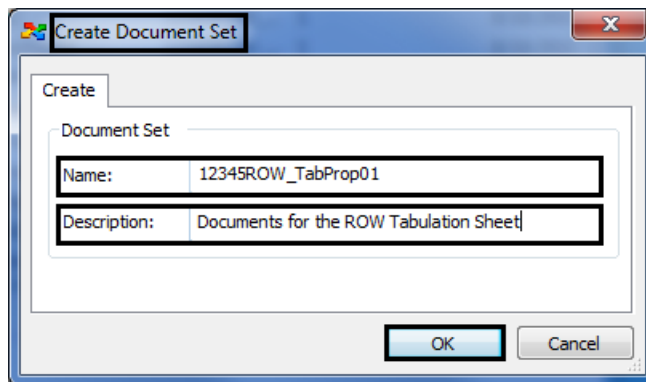# Linking Word and Excel Files to MicroStation

Linking a ProjectWise document to a MicroStation drawing allows you to change the document and have those changes automatically reflected in the MicroStation drawing. This is a two stage process. The first step is to create a logical set of documents called a *Document Set*. The second step is to use the set to link the documents with the MicroStation drawing.
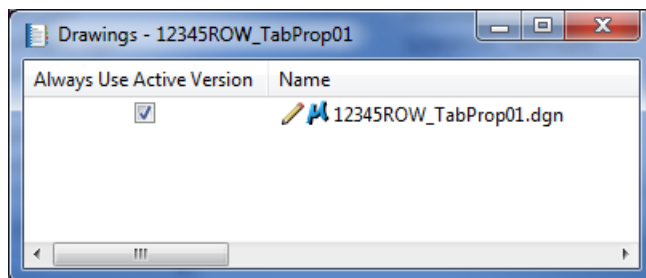
### Creating a Document Set

1. In the ProjectWise Explorer select the folder where the parent drawing is located. This will usually be the *\Drawings* folder of the specialty group.

2. **Right-click** on the parent drawing file and select **Set > New** from the right click menu. This will display the *Create Document Set* dialog box.
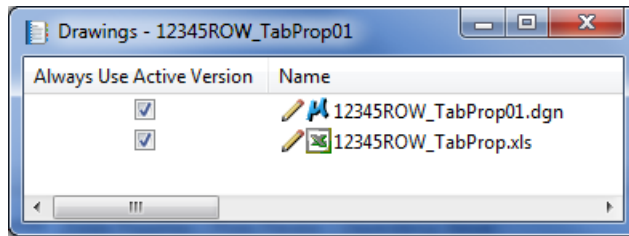
3. Enter a *Name:* and *Description:* for the new document set. Consider using the name of the MicroStation file as the *Name:* of the new document set. This will help with knowing which document set is associated with a drawing. Click **OK**.

The *Document Set* window will appear with the parent drawing listed in the window.

4.  Next, **Drag and drop** any Excel or Word documents that will be referenced to the parent drawing into the document set window.



*Note:*  Although documents can be added to the Document Set from any folder within the active ProjectWise datasource, ideally they would be added from folders within the same project.

5.  Once all of the desired documents are added to the document set, close the document set window. The Document Set will appear in the ProjectWise Explorer window as indicated by the ![icon] icon. Notice how the document set has a Name but no FileName as shown below.



*Note:*  A document set is not a file and therefore cannot exist outside of ProjectWise.
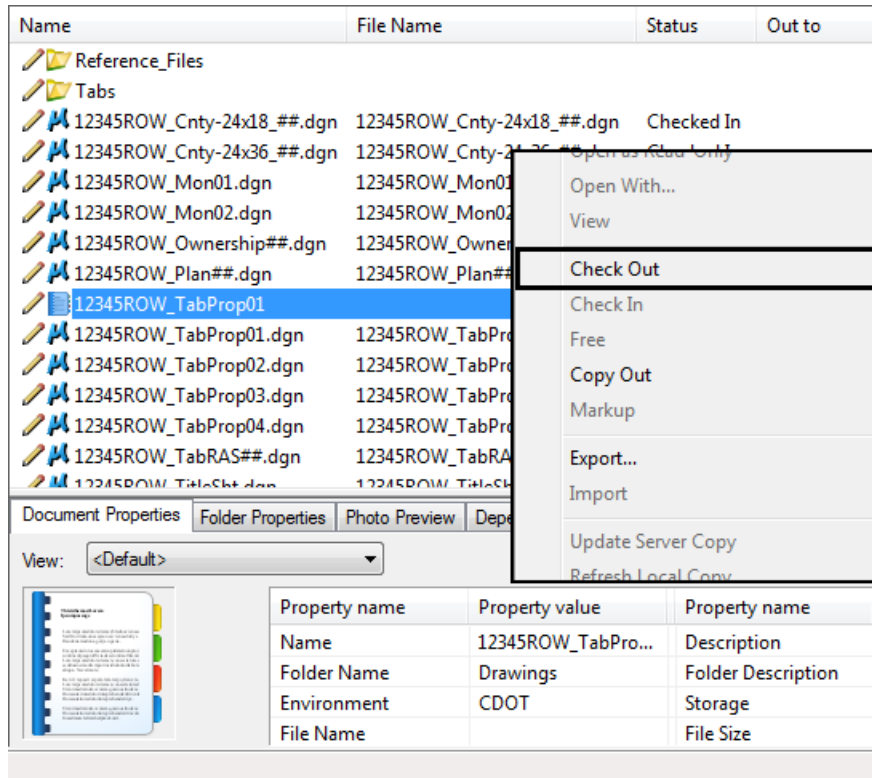
Using the document set, all files associated with the drawing file can be checked in/out as a complete set. Using the document set to check in/out files ensures that the correct files are being used in the linked document and are available to other team members when changes are made to the base files.
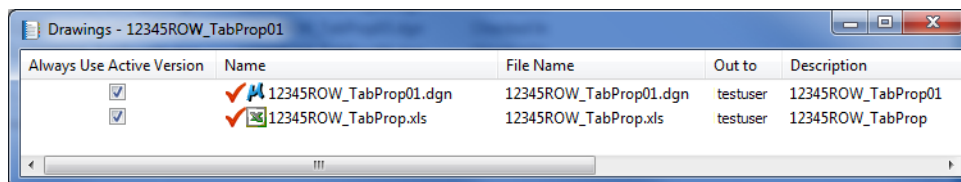
### Linking Documents to a Drawing File

The following steps illustrate how to link Excel and Word documents to a MicroStation drawing file using document sets. Since ProjectWise copies a document to a local folder upon checkout and these files are not always deleted when the document is checked in, this method of linking provides for the most reliable results when working in a team environment.

To link an Excel or Word document to a MicroStation file:

1.  **Right-click** the document set in the ProjectWise Explorer window and select **Check Out**. This copies all the files in the document set to the ProjectWise working folder on your computer and locks the files in ProjectWise from being edited by someone else.



2.  **Double-click** on the document set to open the document set window. You will use this window to verify the status of documents as you use them in the following steps.
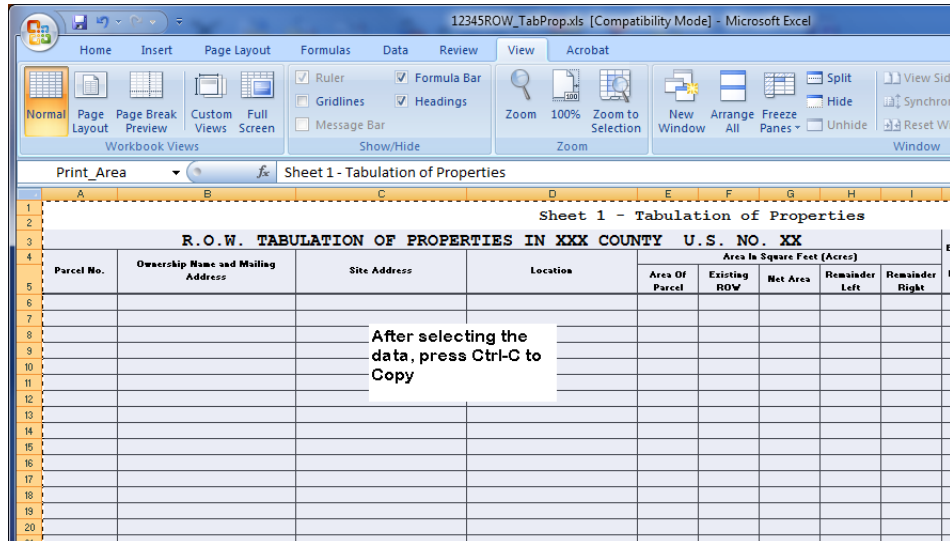


    Notice that because the document set was checked out, all associated files are checked out as well.
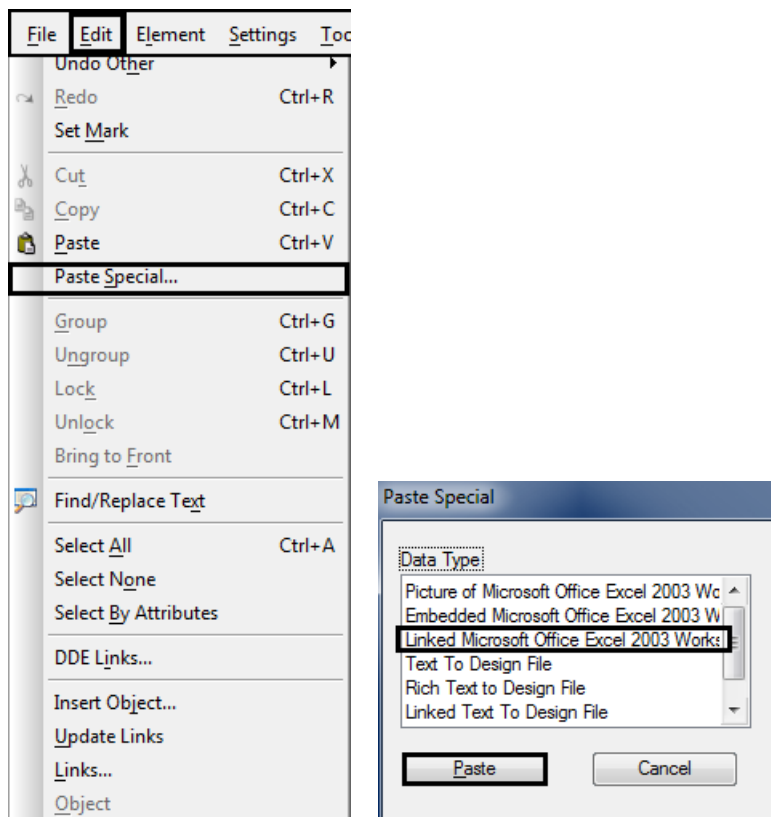
3.  Open the MicroStation drawing and any documents that will be linked to the drawing file.

4.  Select the data in the document that you want to link to the drawing. This method will work for text in a Word document, rows and columns in an Excel spreadsheet, or other data. The following example is an Excel document.

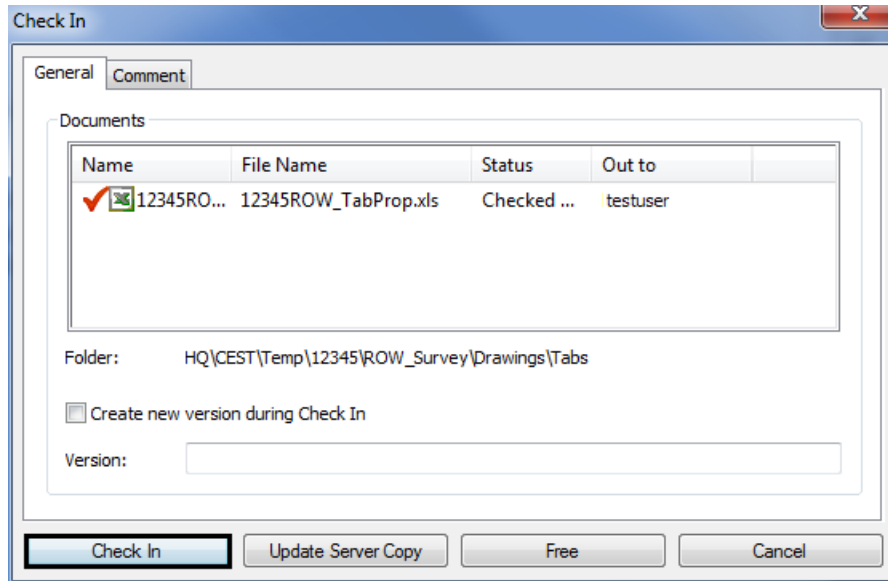5.  Press **Ctrl-C** to copy the data to the clipboard.



6.  Switch over to the MicroStation application.

7.  From the MicroStation *Edit* menu select **Paste Special < Linked Microsoft Office Excel Worksheet**, then click on **Paste**.
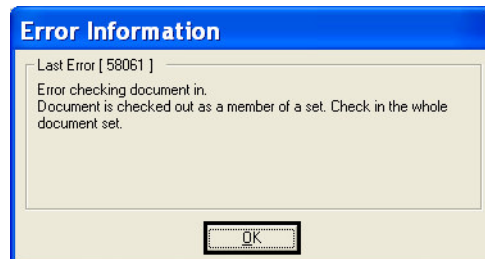


8.  Set the position and size of the data in the MicroStation drawing.

9.  Repeat the steps 4-8 for any additional documents to be included.

10. When you close either MicroStation or the documents associated application, you will be asked to check in the document. Click the **Check In** button. This will update the server copy of the document.
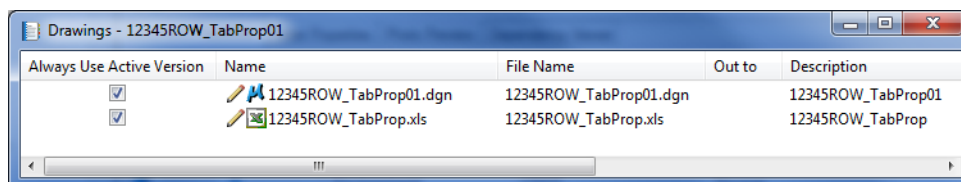


*Note:* You may also get the following error message. This message occurs because the documents were all checked out as a set and need to be checked in as a set. If this error message appears, click the **OK** button and proceed to the next step.



11. The final step is to check in the document set. Right-click on the document set in the ProjectWise Explorer window and select **Check In**. This will check in all documents associated with the document set and update the server copy of those documents.

    Looking at the document set window you will notice that since the document set was checked in, all associated documents are checked in as well.
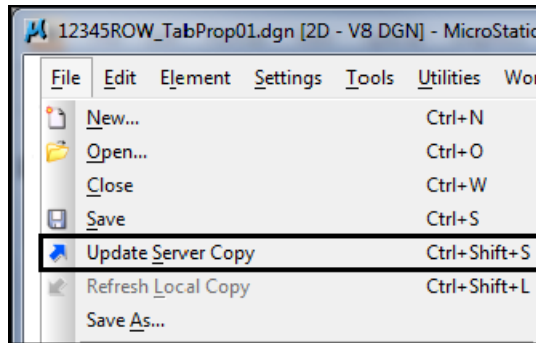
### *Updating Documents Without Checking Them In*

Sometimes you will want to keep the file you are working on checked out but would like others to see what changes you have made. The *Update Server Copy* command allows you to save the changes you've made to the design file to the ProjectWise server without having to check the drawing back in.

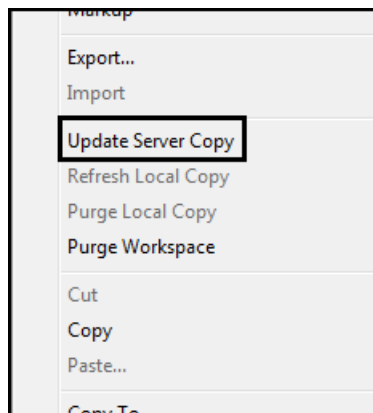There are two ways to update the server copy of a file:

1.  If you are already in MicroStation, select **Update Server Copy** from the *File* menu.



You can verify this when you see the message *Document server copy updated successfully* in the MicroStation message center.



2.  The second method is to Right-click on the file in the ProjectWise explorer window and select **Update Server Copy** from the menu.

# Printing from MicroStation

Several workflows have been created to help you with various printing topics. These workflows include:

- ♦ CDOT Workflow MicroStation Printing
- ♦ CDOT Workflow Print Organizer
- ♦ CDOT Workflow Printer Driver Adjustments
- ♦ CDOT Workflow Printing AutoCAD Files in MicroStation
- ♦ CDOT Workflow Printing Raster Images

These workflows can be found on the CADD/Engineering and ProjectWise website.