



COLORADO
Department of
Transportation

MICROSTATION SS4

PRINTING GUIDE

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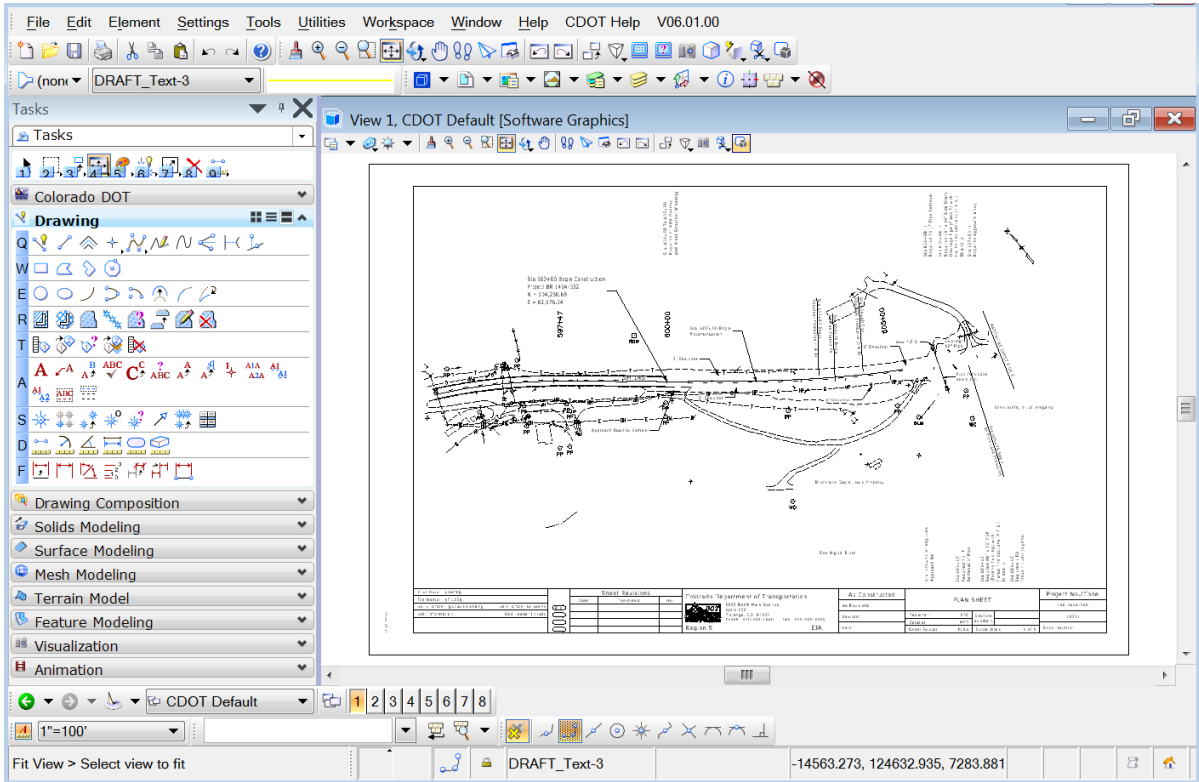
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MicroStation SS4 Printing Guide

This document guides you through the basic functions of MicroStation printing for single sheets and plan sets.

Single Sheet Printing

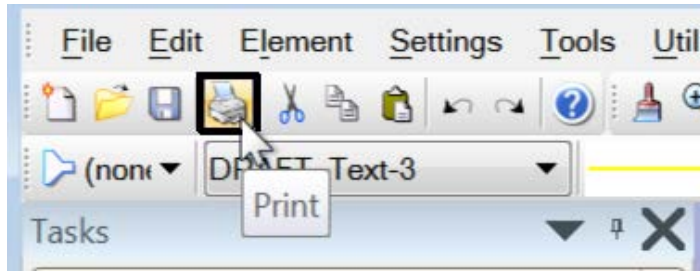
Single sheet printing of a dgn design file is completed from within MicroStation.



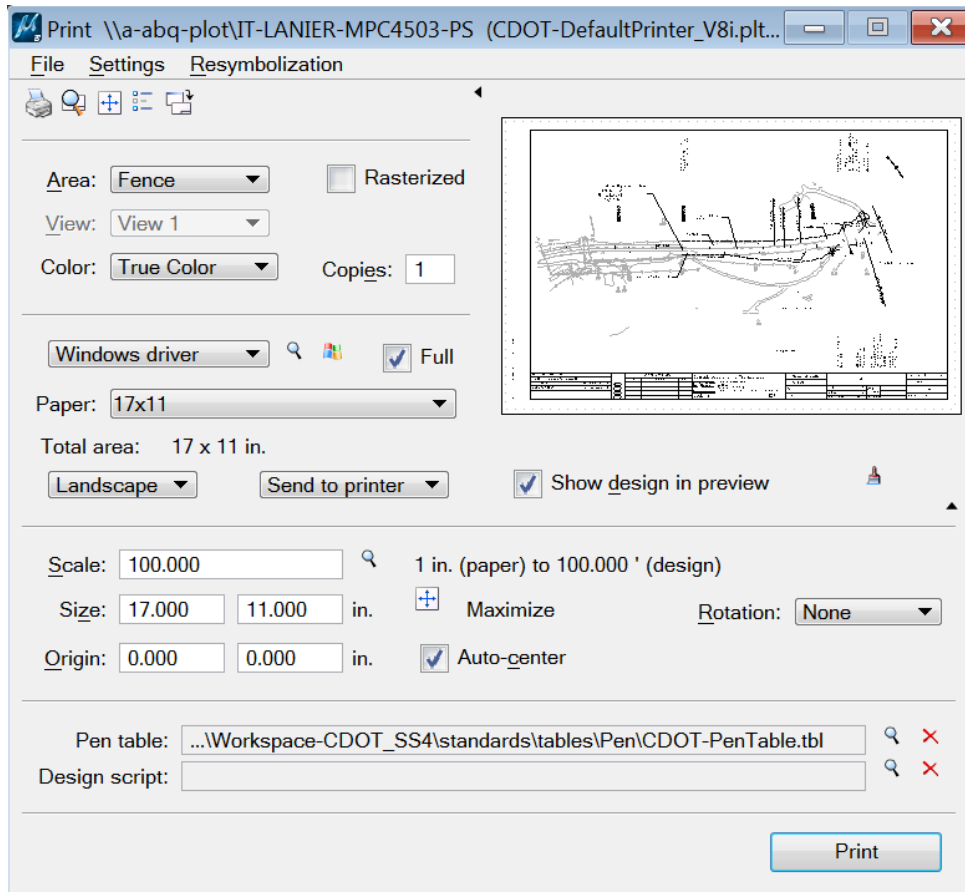
In the past, the most commonly used method for printing a sheet file from MicroStation began by placing a fence around the contents you wished to print. This method should still be used when printing areas of a design file in which there is not a sheet border definition, for example, an intersection of a design project.

For printing a MicroStation sheet file, that contains any CDOT sheet border, settings have been made to automatically snap to the outside edge of the sheet border using the level ***SHEET_Plot-Boundary***. A fence does not have to be placed before starting the Print command.

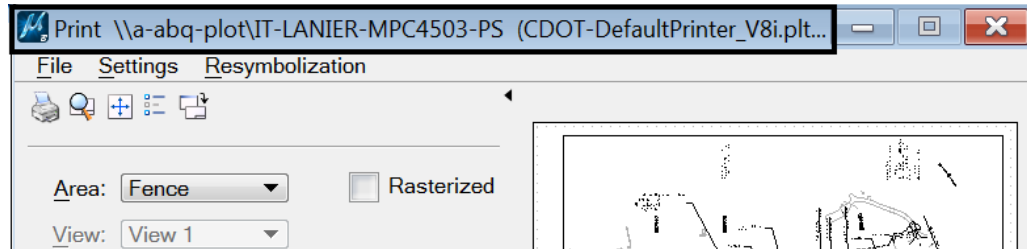
1. Open the print dialog box by selecting **File > Print** or click on the **Print** icon in the Standard Toolbox.



The Print dialog box will open.

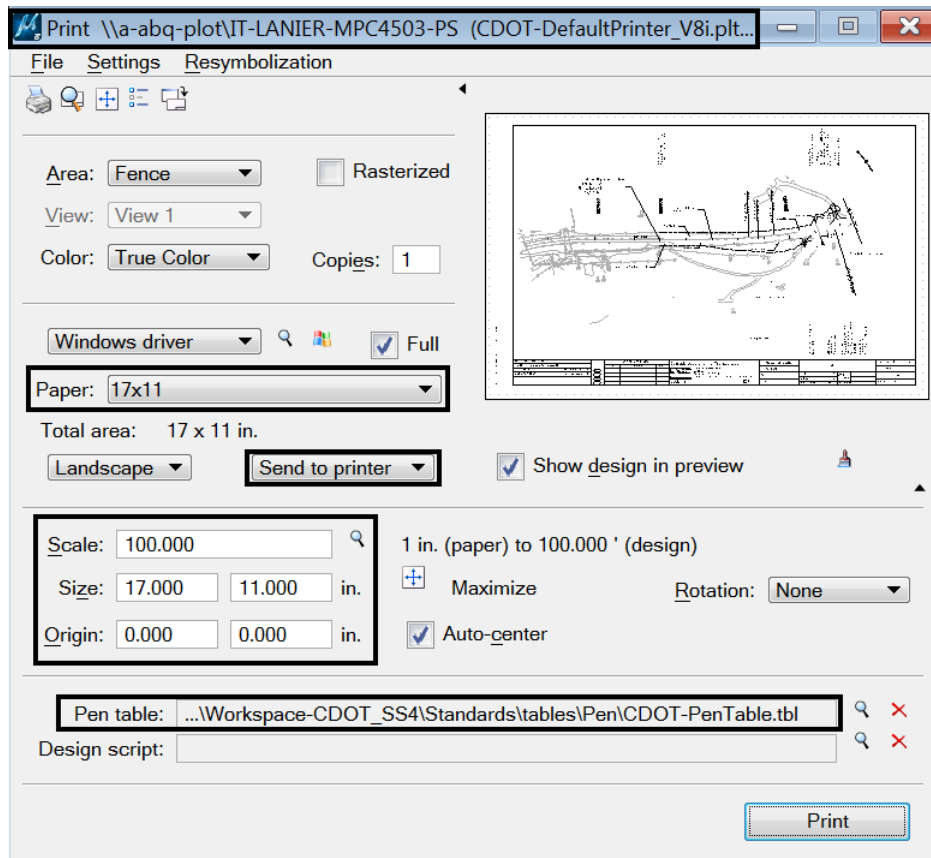


A default Printer Driver is assigned using common settings to print most CDOT sheet files to a printer. This printer driver is displayed in the title bar at the top of the print dialog box.



Default print settings include:

- Assigning the default printer for printing
- Paper size
- A pen table assigning pen widths, color, etc. to data within the file
- Print Attribute settings turning on line styles, line weights, patterns, text, dimensions, etc.
- The default fence is placed using the level SHEET_Plot-Boundary. The scale and sheet size is automatically set using this fence area.

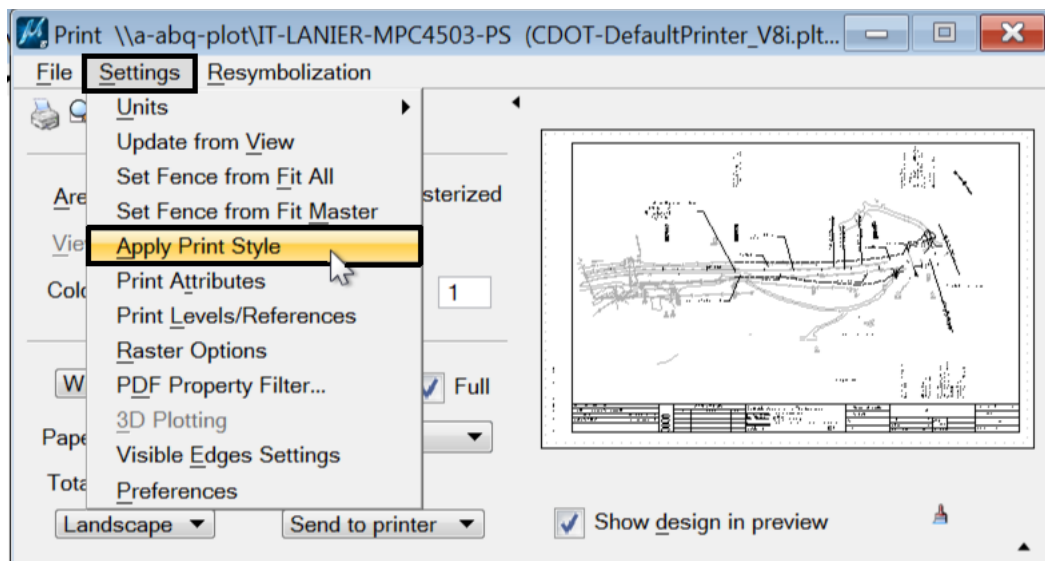


2. **Click** on the **Print** button to send a print of the file to the printer.

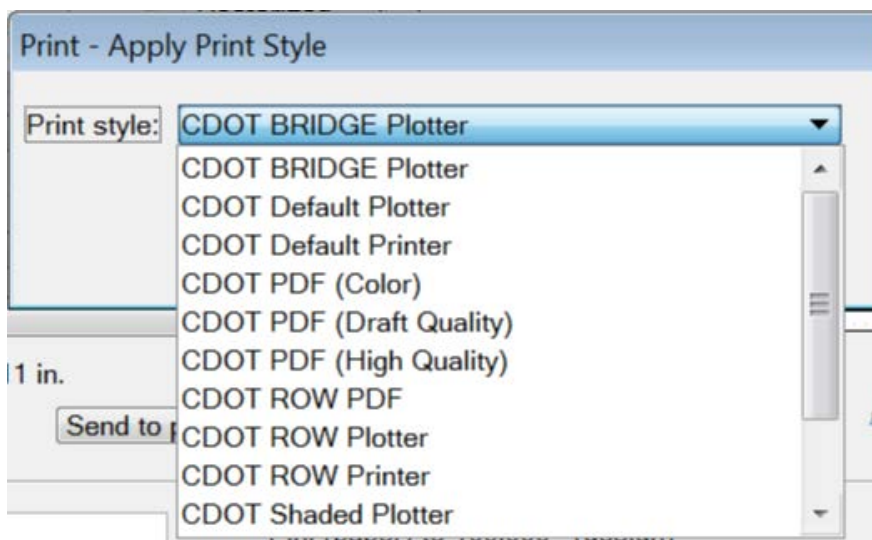
Using Print Styles

A Print Style is a collection of frequently used print properties that have been saved for later use. CDOT Print Styles have been created with common settings and are included in the CDOT workspace. These Print Styles automatically set a printer driver, pen table, scale, page size, sheet orientation, linestyles, line weights, and sets the printer. CDOT has created several print styles in addition to default settings. These print styles can be used for printing files to printers and creating PDF's. When the print command is activated in MicroStation, the **CDOT Default Printer** print style is used by default.

1. You can assign a print style in the **Print** dialog box by selecting **Settings > Apply Print Style**.



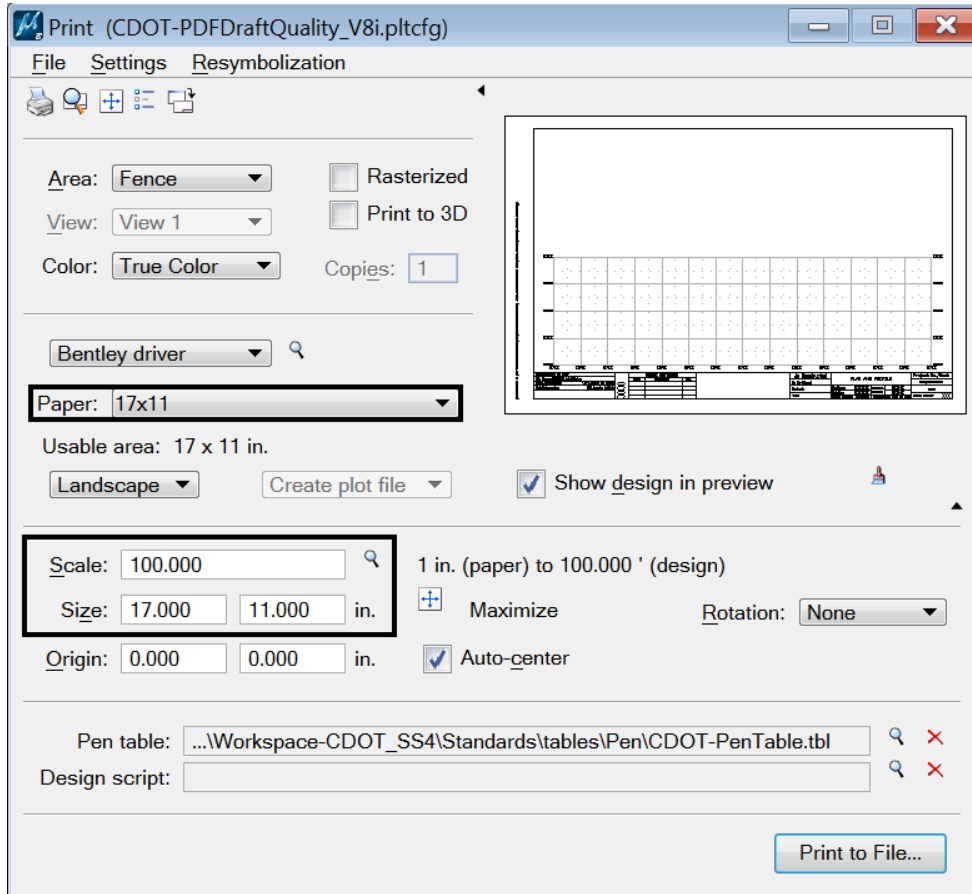
2. The **Print Style** dialog box will open. **Click** on the down arrow to see a list of available print styles.



- CDOT BRIDGE Plotter – assigns default settings and sends to default printer
 - CDOT Default Plotter – assigns default settings and sends to default printer
 - CDOT Default Printer – assigns default settings and sends to default printer
 - CDOT PDF (Color) – assigns settings to create a PDF using color
 - CDOT PDF (Draft Quality) – assigns settings to create a black and white PDF with a 300-dpi setting. Used for 11” x 17” file creation.
 - CDOT PDF (High Quality) – assigns settings to create a black and white PDF with a 600-dpi setting. Used for larger file creation.
 - CDOT ROW PDF – assigns settings to create a black and white PDF with a 300-dpi setting. Used for 11”x17” file creation.
 - CDOT ROW Plotter – assigns ROW settings and sends to default plotter
 - CDOT ROW Printer – assigns ROW settings and sends to default printer
 - CDOT Shaded Plotter – assigns settings for shaded color and grayscale sheet files and sends to default printer
 - CDOT TRAF PDF – assigns TRAF settings for 8.5 “x14” printing and creates a PDF file
 - CDOT TRAF Printer – assigns TRAF settings for 8.5 “x14” printing and sends to default printer
 - County Sheet Composer – used to print 24”x36” County Sheets to default printer
3. Select the appropriate print style and click **OK** to continue.

Print to PDF

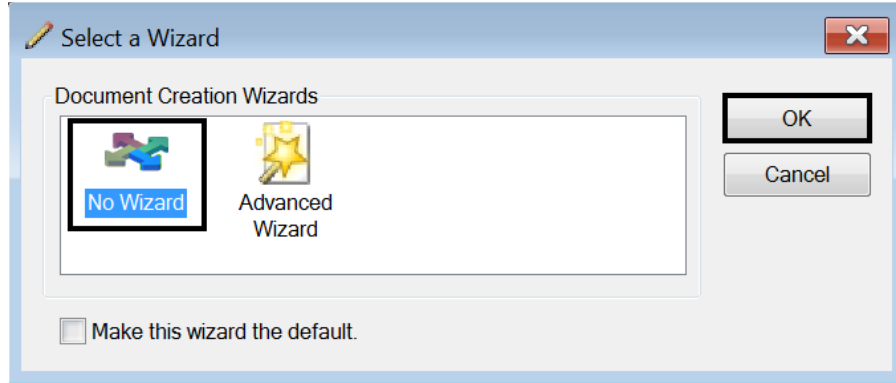
- Review the settings. In this example, the following settings should be set for CDOT PDF (Draft Quality) on an 11"x17" sheet set to a 1"-100' scale.
 - Paper: 17x11
 - Scale: 100.000 and the
 - Size 17.000 x 11.000



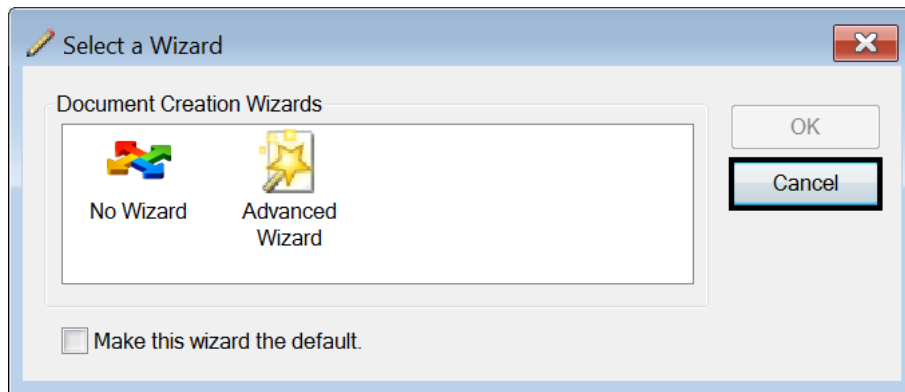
- Click on the **Print to File...** button or the **Printer** icon to create a pdf.

Note: If the Make this wizard the default check box has been toggled on previously, the Select a Wizard dialog box will not be displayed.

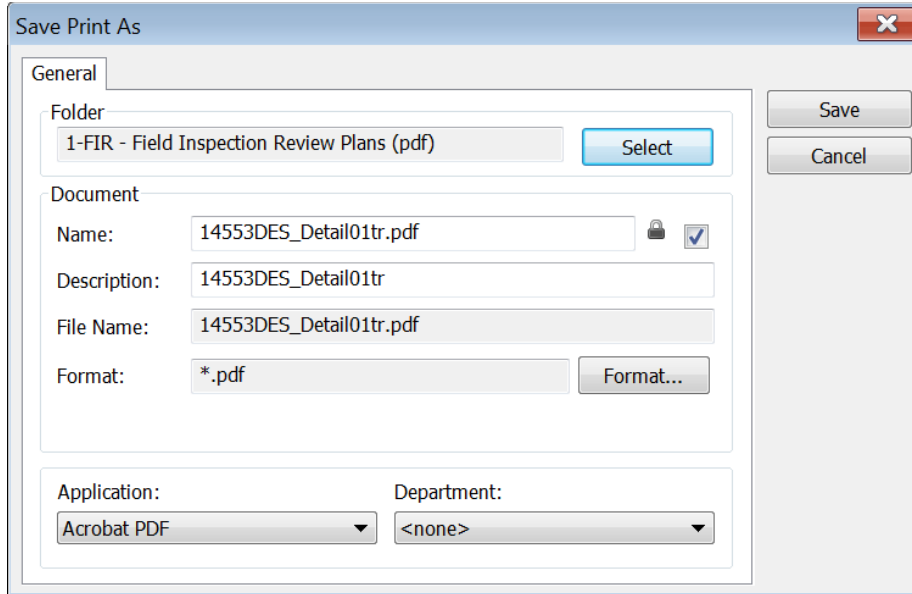
6. The **Select a Wizard** dialog box will appear. Select **No Wizard** and then click OK if saving to ProjectWise.



7. Click the **Cancel** button if saving to a folder locally on your computer.



8. Navigate to the folder location where you wish to create the PDF file.

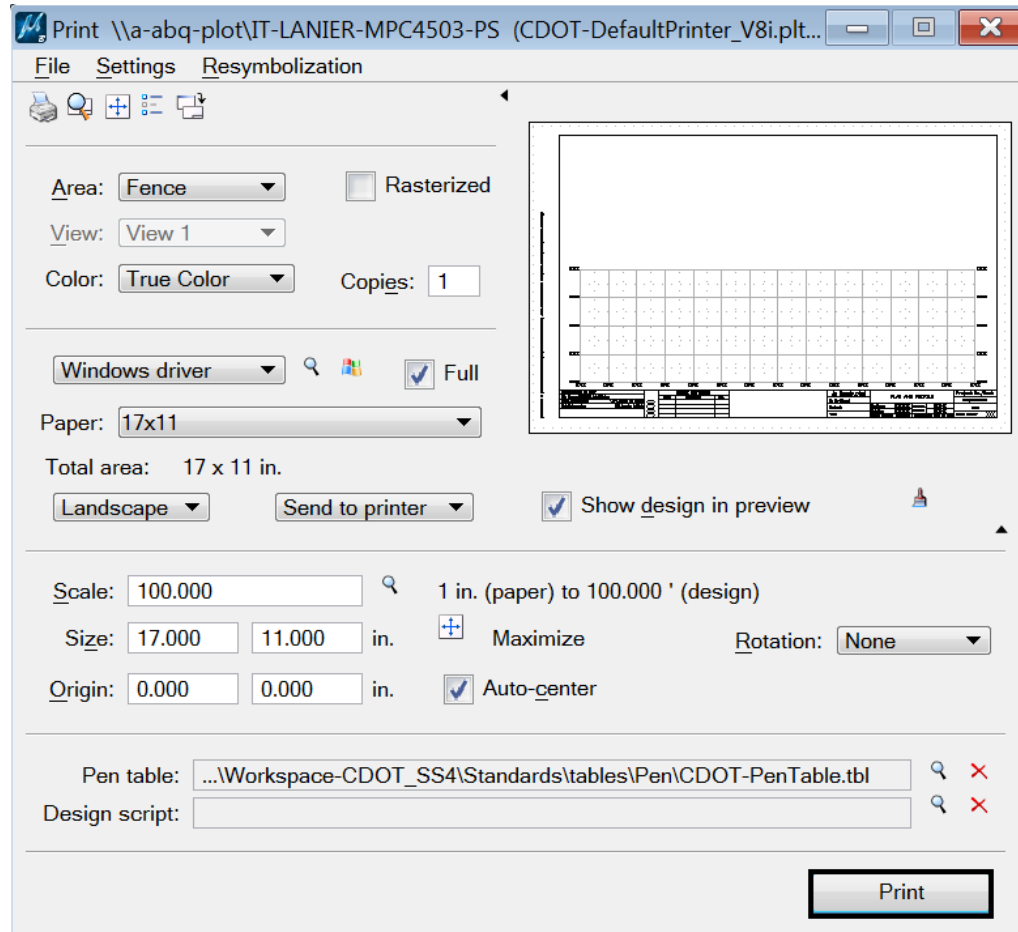


9. Click the **Save** button to create the PDF. Note, if the **Select a Wizard** dialog box was not displayed, you can Click the **Cancel** button here to save the file to a folder locally on your computer.

Print to Default Printer

When a print style is selected to send a sheet to a printer, the same settings are applied as those for a PDF print style.

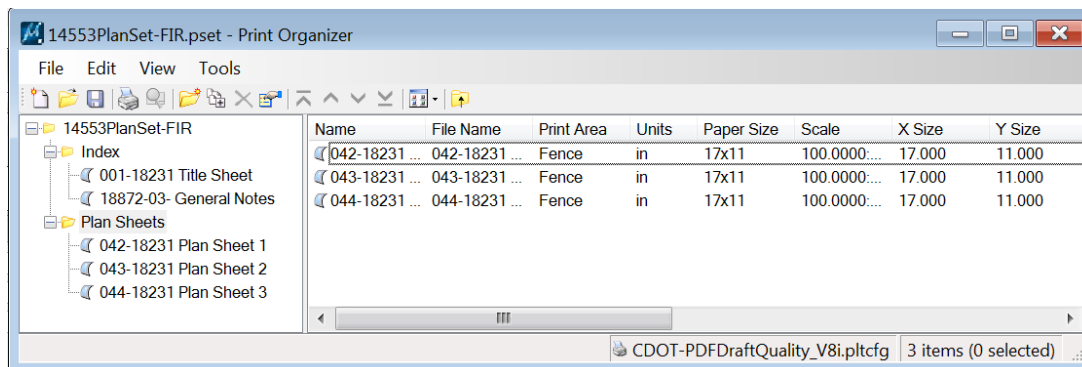
10. After the print style has been set for printing to a default printer, click on the **Print** button to continue.



11. Once the file has been set to the printer, close the **Print** dialog box by selecting **File > Exit**.

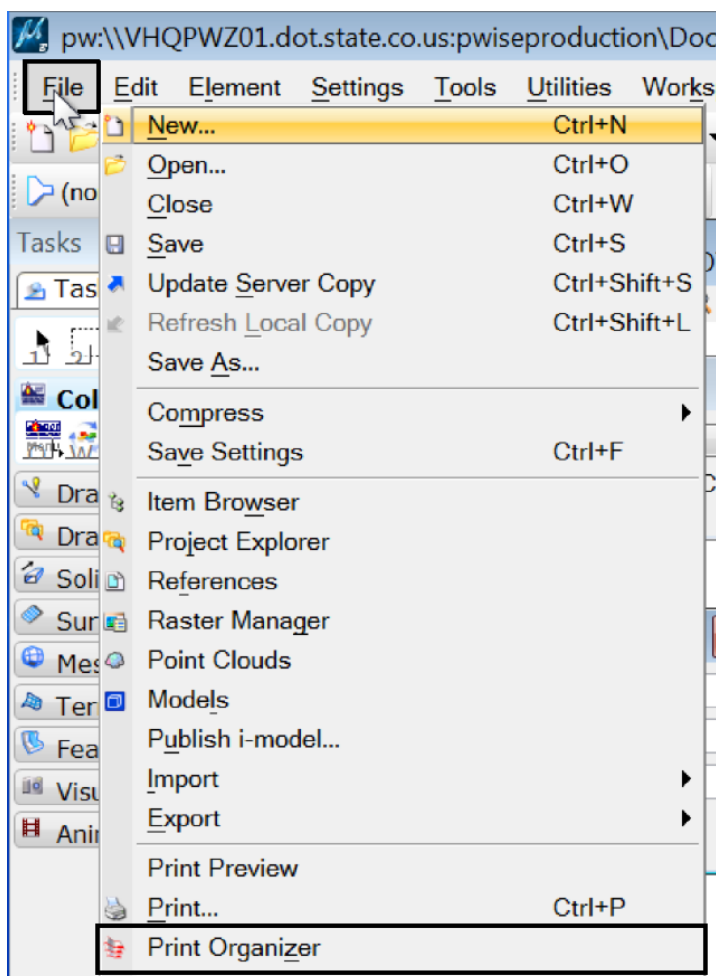
Batch Printing Using Print Organizer

Print Organizer is a utility in MicroStation for printing and reprinting plan sets. Files added to a print set can be organized in order individually or grouped by folders and subfolders.



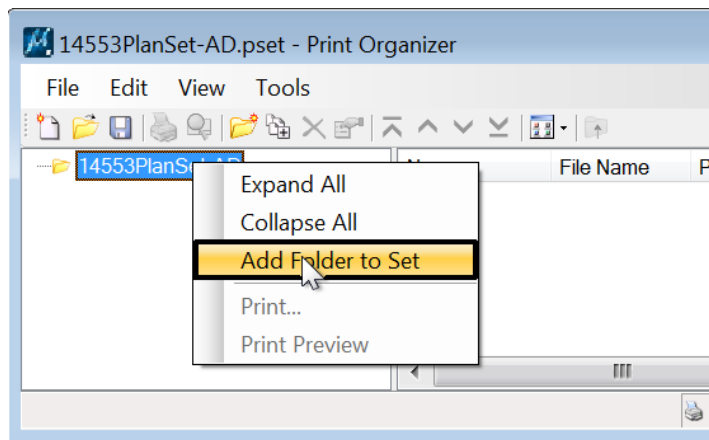
Print Organizer can be run while in any MicroStation drawing. Even if it is not included with the files added to the print set.

1. Select **File > Print Organizer** from the pulldown in MicroStation.

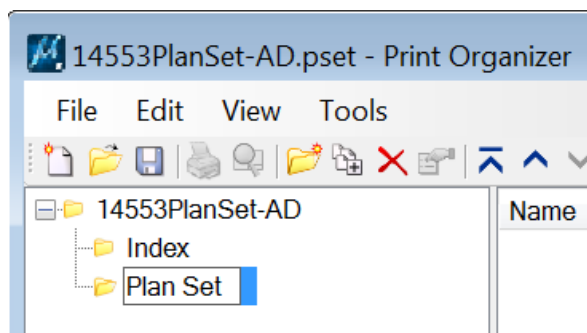


The Print Organizer dialog box will display. The print set name defaults to **Untitled**. When you save the print set with a project related name, the root folder in the left-hand column will change along with the name. The saved file will have an extension of **PSET**. In this example, the title sheet and general notes are added to the Index folder and the plan sheets are added to the Plan Set folder.

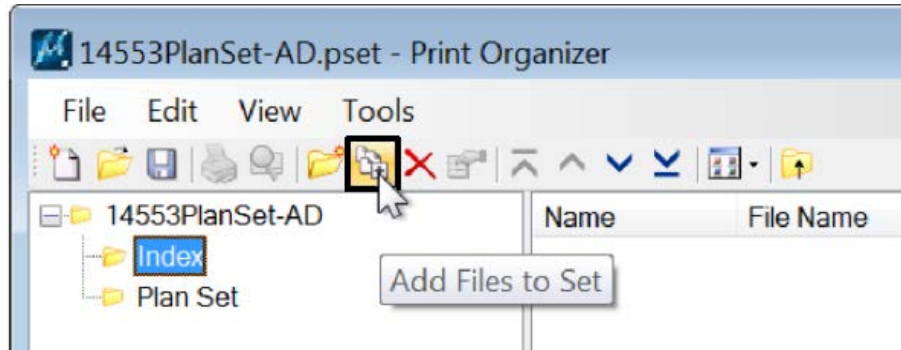
2. In the print organizer dialog box, select **File > Save As**. Navigate to the location in ProjectWise by selecting **No Wizard** and then the **OK** button, or to a folder locally by clicking the **Cancel** button.
3. Key in an appropriate name for the plan set pset file. For example, **14553PlanSet-AD.pset** (project code followed by a short description).
4. Next, **right click** on the plan set name and select **Add Folder to Set**.



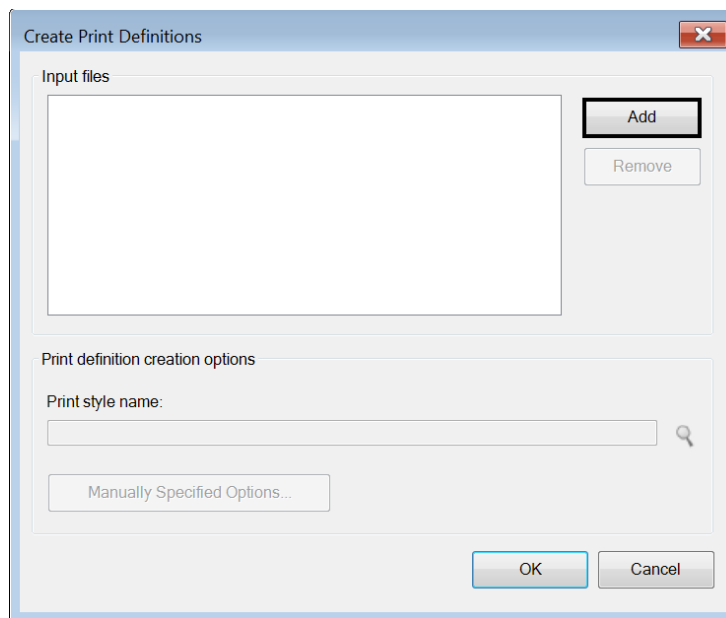
5. Key in **Index** for the folder name.
6. **Right click** on the plan set name again and select **Add Folder to Set**.
7. Key in **Plan Set**.



8. **Highlight** the **Index** folder by clicking on it with the left mouse button.
9. Next, add files to the plan set by clicking on the **Add Files to Set** icon.

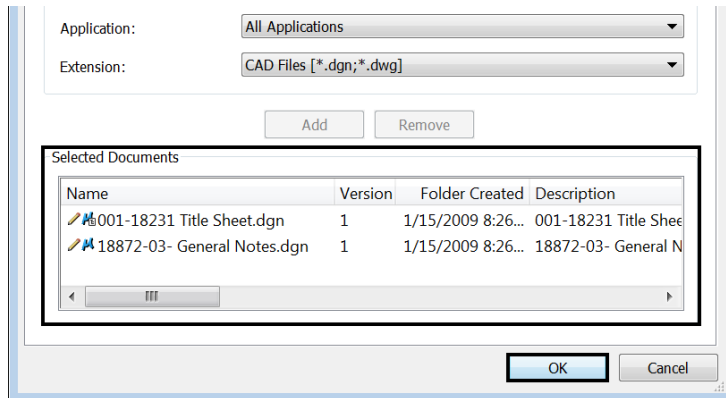


10. To add files, **click** on the **Add** button in the **Create Print Definitions** dialog box.

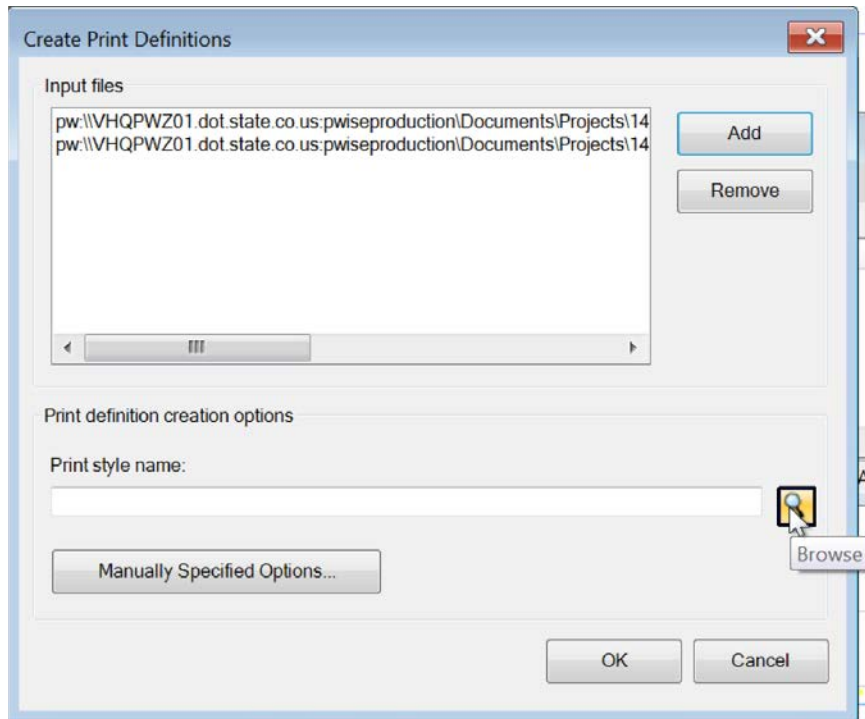


11. Navigate to the folder where the sheets are stored.
12. Select the file(s) and then click the **Add** button.

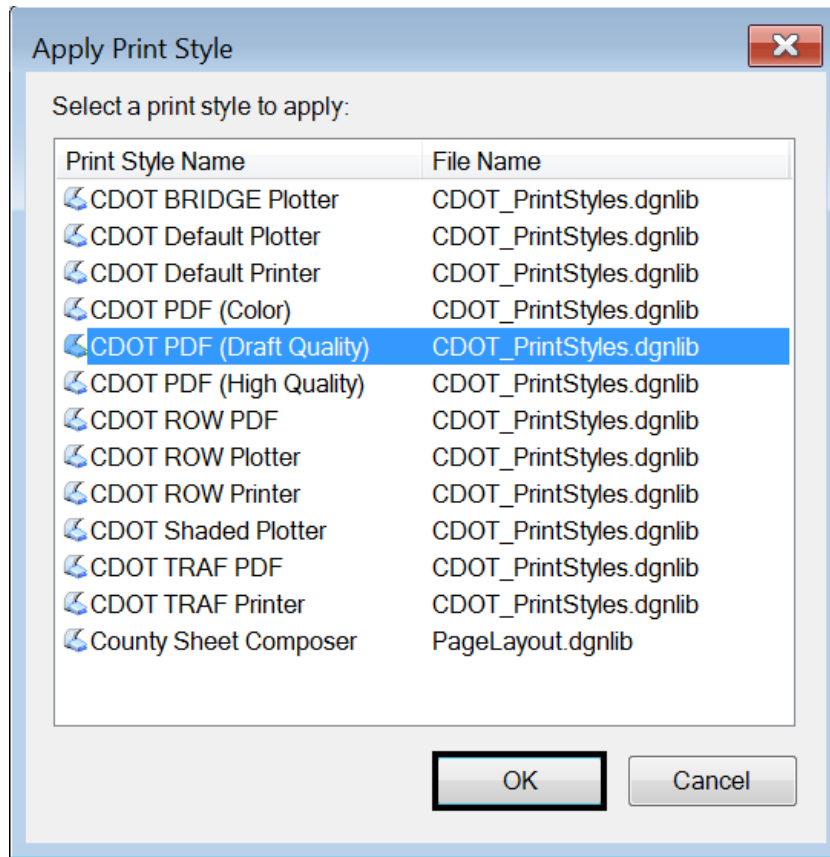
13. Once the files have been added to the Selected Documents section, click the **OK** button.



14. In the **Create Print Definitions** dialog box, select the **Browse** magnifying glass icon to select the appropriate **Print Style**.



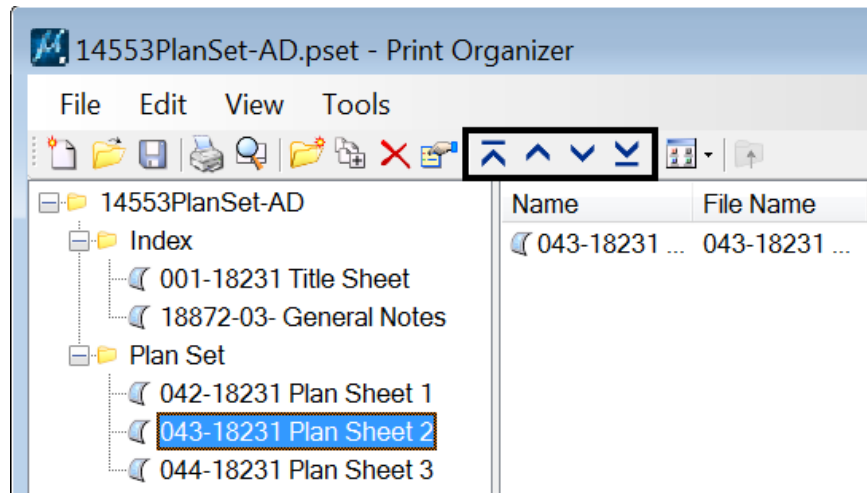
15. Select the desired print style and click the **OK** button.



The CDOT print styles already have options assigned for snapping to the ***SHEET_Plot-Boundary*** level and setting the pen weights. So, there is no need to set anything in the ***Manually Specified Options*** section.

16. Click the **OK** button to add the files to the definition set.

17. Sheets can be sorted by using the move icons in the Print Organizer toolbar. Select the file to be moved and click on the appropriate move icon.

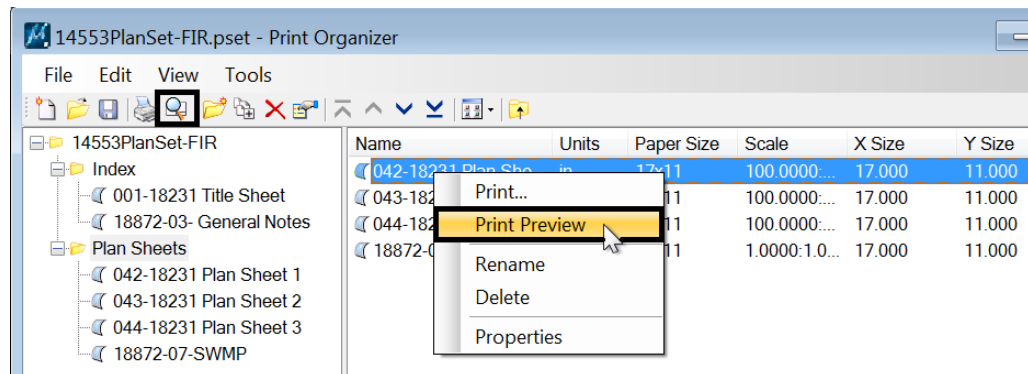


In order from left to right, the move icons are:

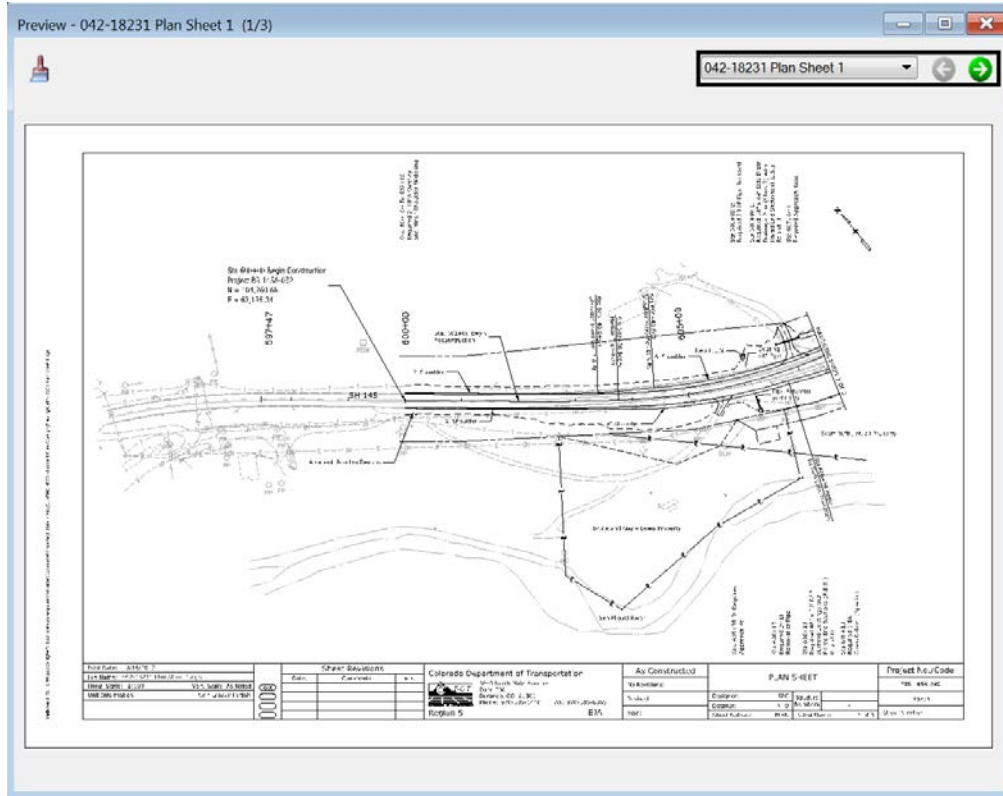
- Move to Top
- Move Up
- Move Down
- Move to Bottom

Print Preview Files

1. You can preview a file by selecting the **Print Preview** icon or right-clicking on the file and selecting **Print Preview**.

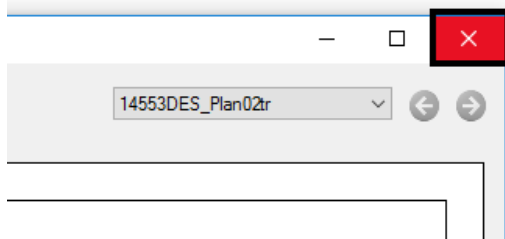


2. If more than one sheet has been selected, use the navigation buttons to page through the sheets.



Note: The entire contents of a folder can be previewed by highlighting the folder or folders in the left pane of the dialog box then clicking the **Print Preview** icon.

3. **Close** the preview screen.

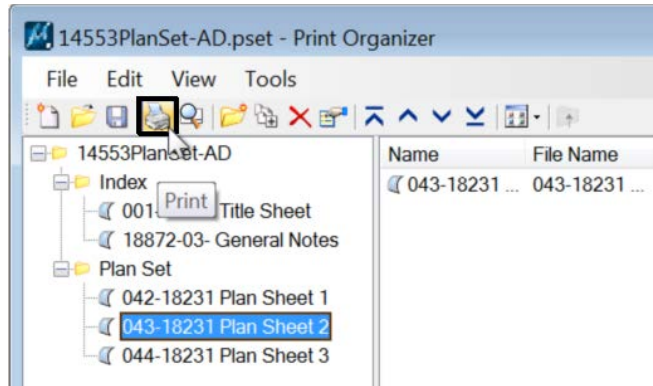


Printing from Print Organizer

Once files have been added to the print organizer file and the print styles assigned, the files can now be printed individually or as a plan set.

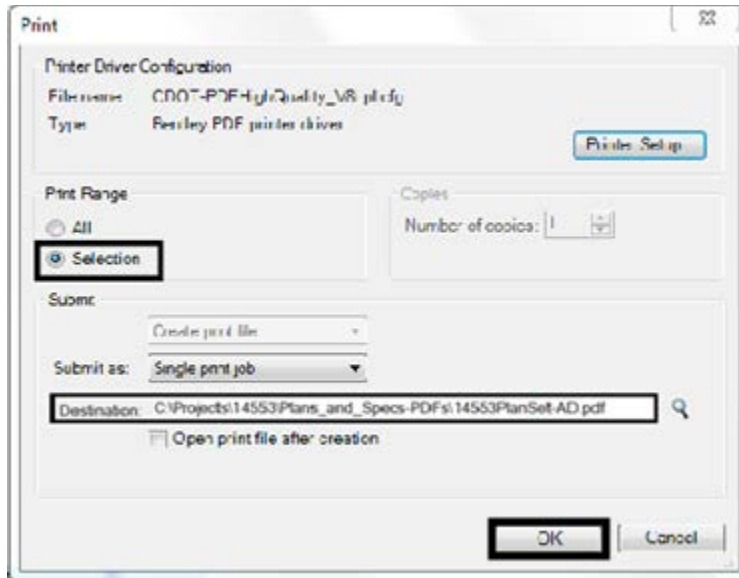
Printing a Single File from Print Organizer

4. In **Print Organizer**, select the file you wish to print.
5. Click the **Print** icon from the toolbar.



Note: Files can be selected in either the left or right panes of the dialog box.

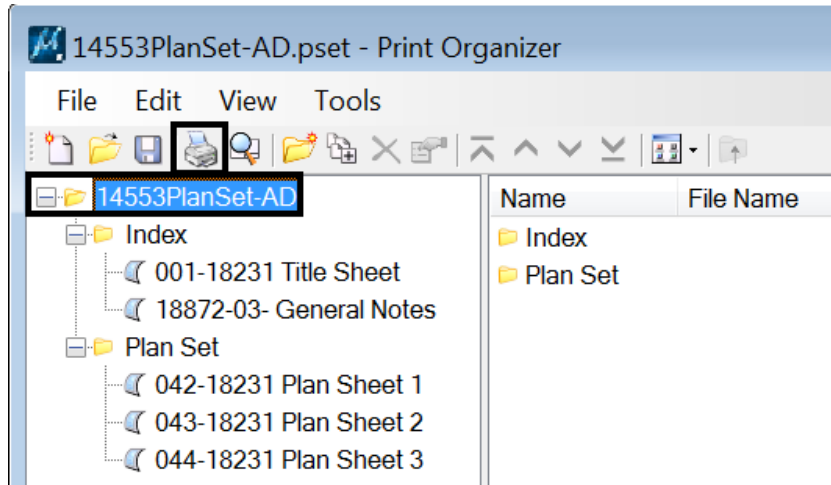
6. In the **Print** dialog box, toggle on the **Selection** button in the **Print Range** section. This setting will only print the files that have been selected.
7. Click on the **Browse** magnifying glass icon and navigate to the location where you want the PDF saved, if using a PDF print style.
8. Key in the desired Name for the print.
9. Then click **Save**. This creates a place holder in the ProjectWise folder. It may also display the ProjectWise Explorer on top of the MicroStation window. Minimize the ProjectWise Explorer.
10. In MicroStation Click the **OK** button in the Print dialog box to continue. The PDF file will be created or the file will be printed on the default printer according to the selected print style.



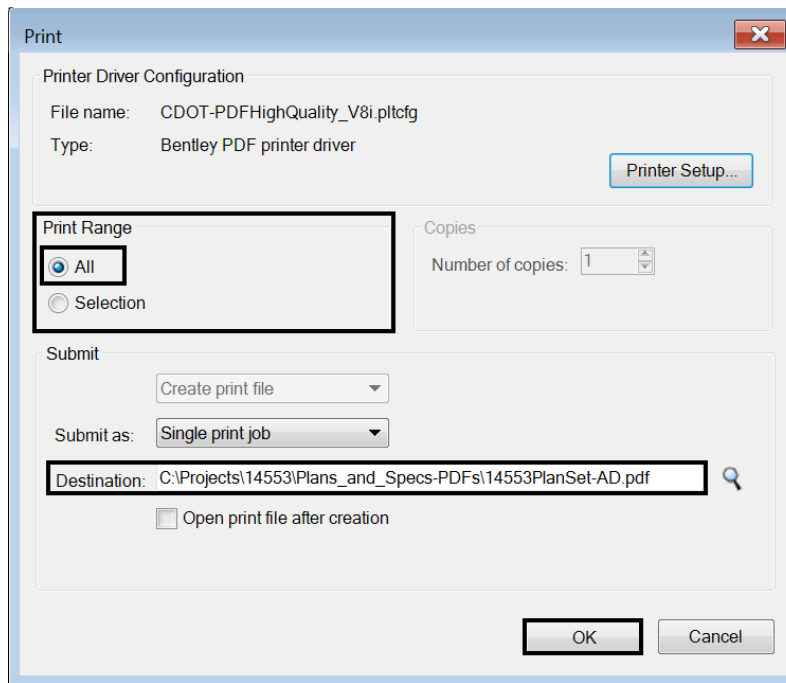
11. When processing is complete, the ProjectWise **Check In** dialog box is displayed. Click the **Check In** button to save the file.

Printing a Plan Set from Print Organizer

12. In **Print Organizer**, select the main folder.
13. Click the **Print** icon from the toolbar.



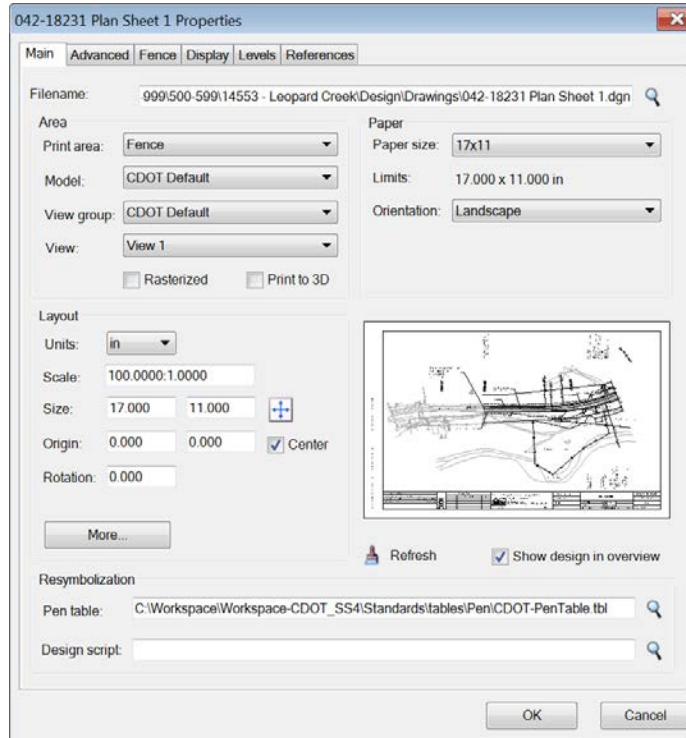
14. Toggle on **All** in the **Print Range** section of the **Print** dialog box.



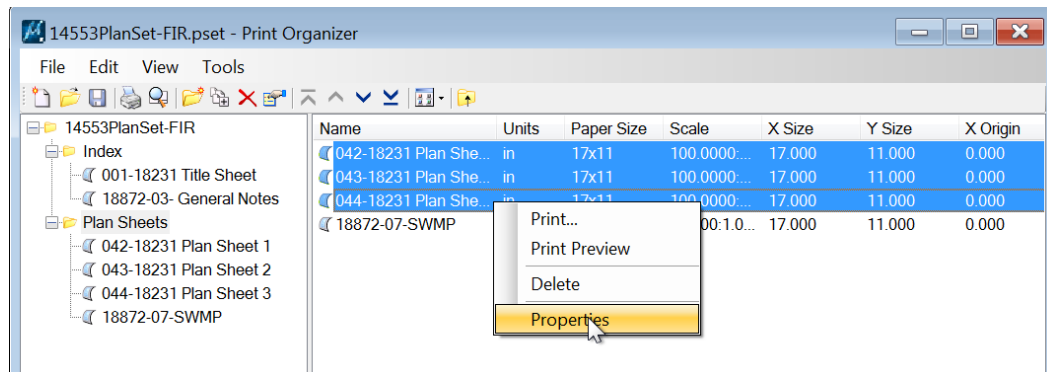
Note: The remaining steps are the same as for printing a single sheet.

Override Print Style Settings

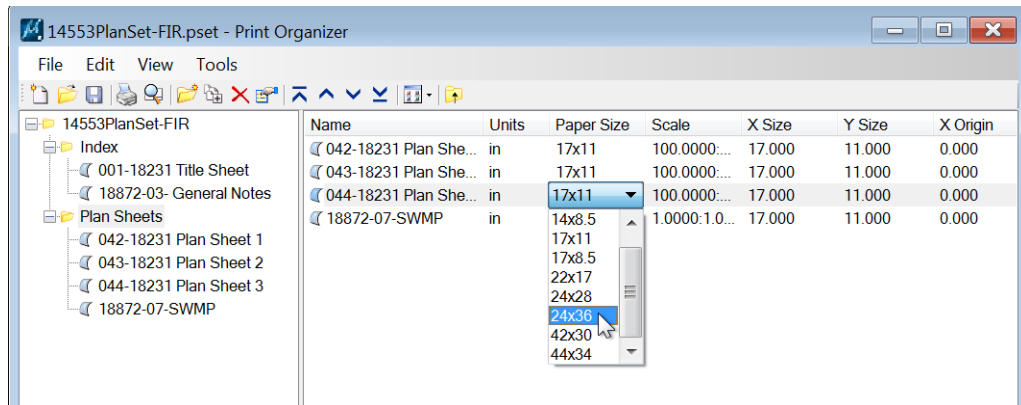
- To view the print style assignments or change them, double click on the file name in **Print Organizer**. This will open the **Properties** dialog box for that file.



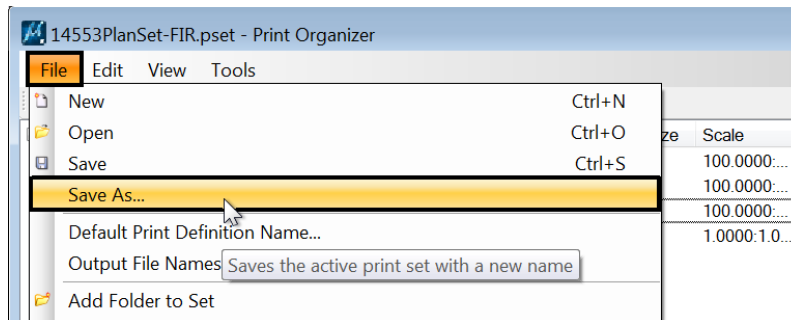
- If any settings are changed, click the **OK** button to accept the changes and dismiss the **Properties** dialog box.
- Print definitions can be edited on more than one file at a time. If you select more than one file and then right-click and select **Properties**, the **Modify Properties** dialog box is displayed. **Note:** when opening the **Properties** dialog box for multiple files, the property values will be blank.



18. Changes can also be made to a single file by using in-place print definition editing. This can be done by selecting the file you wish to edit in the right-hand pane and double-clicking on the property in a specific column.



19. Once all of the settings have been edited, select **File > Save As**.



20. Navigate to the appropriate project folder and assign a new name to the file.

Changing the Default Print Style

When the print command is activated in MicroStation, the **CDOT Default Printer** print style is automatically used. There may be times where a specialty group like Traffic or ROW may want to set a different Print Style as the default. The following steps show you how that can be accomplished.

Each MicroStation user has a user configuration file stored locally on each computer.

To change the default print style, you must get out of MicroStation.

1. Open **Windows Explorer** and navigate to **C:\Workspace\Workspace-CDOT_SS4\Users**.
2. You should see a document **YourName.ucf**. Open it in Notepad.
3. Move to the end of the file and type in the following. Be sure to include the correct print style from the Print Styles list for your default change.

MS_DGNLIBLIST > C:\Workspace\Workspace-CDOT_SS4\Users\YourNameFolder*.dgnlib

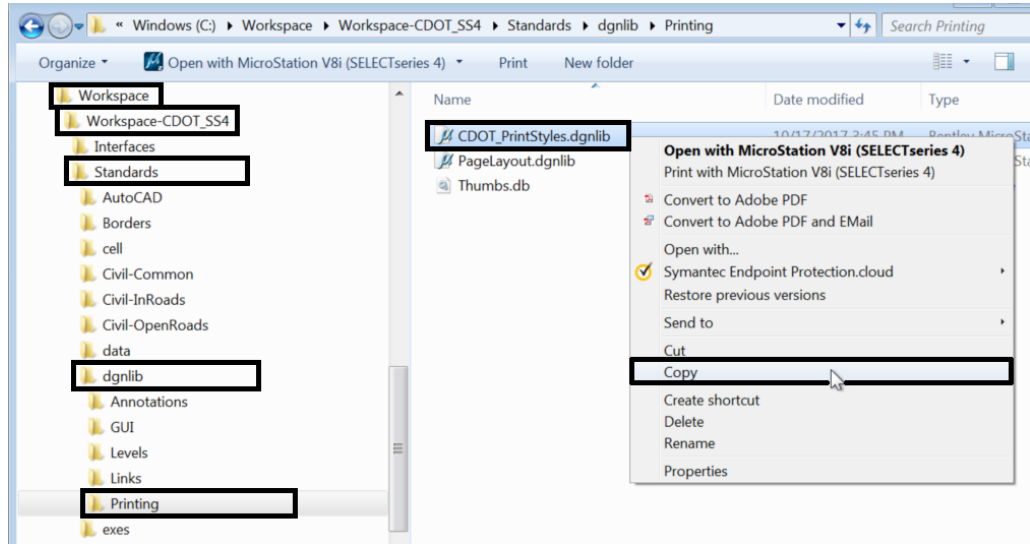
Your ucf file should now look like this but with your logon username.

```
#-----  
#  
# CDOT User.ucf - CDOT Default user configuration.  
#  
#-----  
  
_USTN_USERDESCR      = CDOT User Workspace  
  
#-----  
# Video Graphics Issues - If encountering video resets try enabling this variable  
#-----  
# QV_D3DVERSION = 9  
  
%if defined (_NAVIGATOR)  
_USTN_USERINTNAME = CDOT  
%endif  
  
MS_SPELLINGLANGUAGE = AmericanEnglish  
  
MX_SNAP = GEOMETRY|  
  
# Path to a dgnlib just for Traffic printing  
MS_DGNLIBLIST > C:\workspace\workspace-CDOT_SS4\Users\callahanpw\*.dgnlib
```

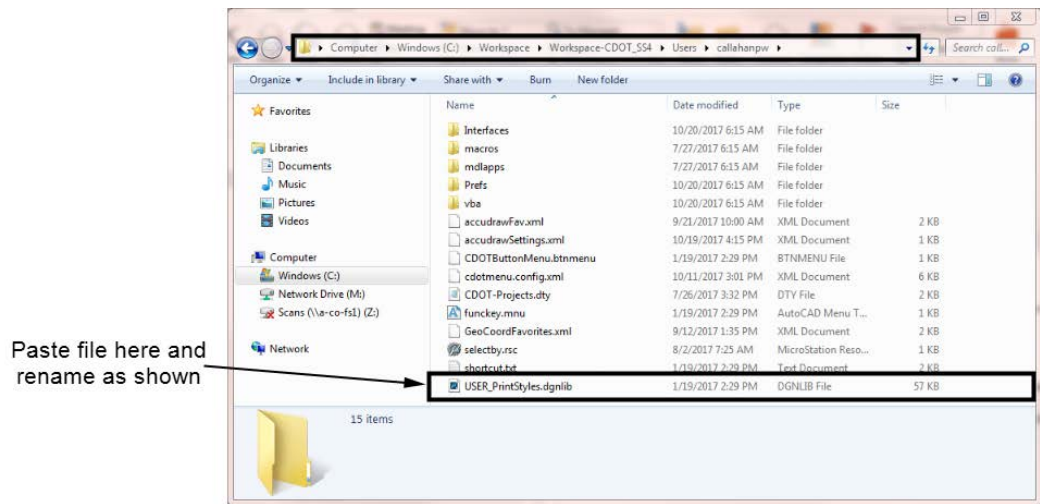
Added Text



4. **Save** and **Close** the ucf file.
5. In **Windows Explorer**, navigate to **C:\Workspace\Workspace-CDOT_SS4\Standards\dgnlib\Printing**.
6. **Right-click** on the **CDOT_PrintStyles.dgnlib** file and select **Copy**.

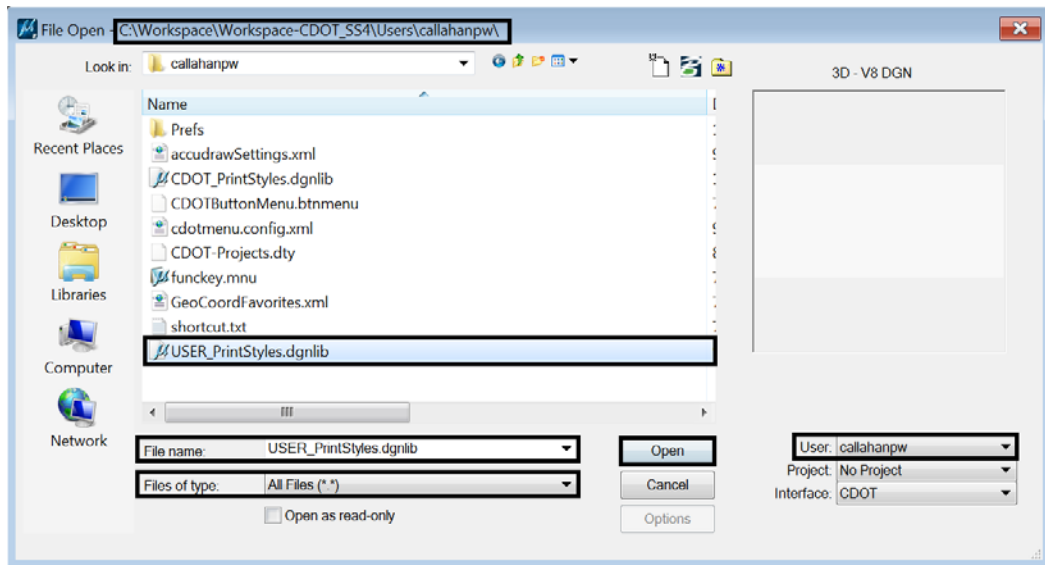


7. In **Windows Explorer**, navigate to **C:\Workspace\Workspace-CDOT_SS4\Users\YourNameFolder**.
8. **Right-click** in the folder area and select **Paste**.
9. **Right-click** on the file and **rename** it to **USER_PrintStyles.dgnlib**.

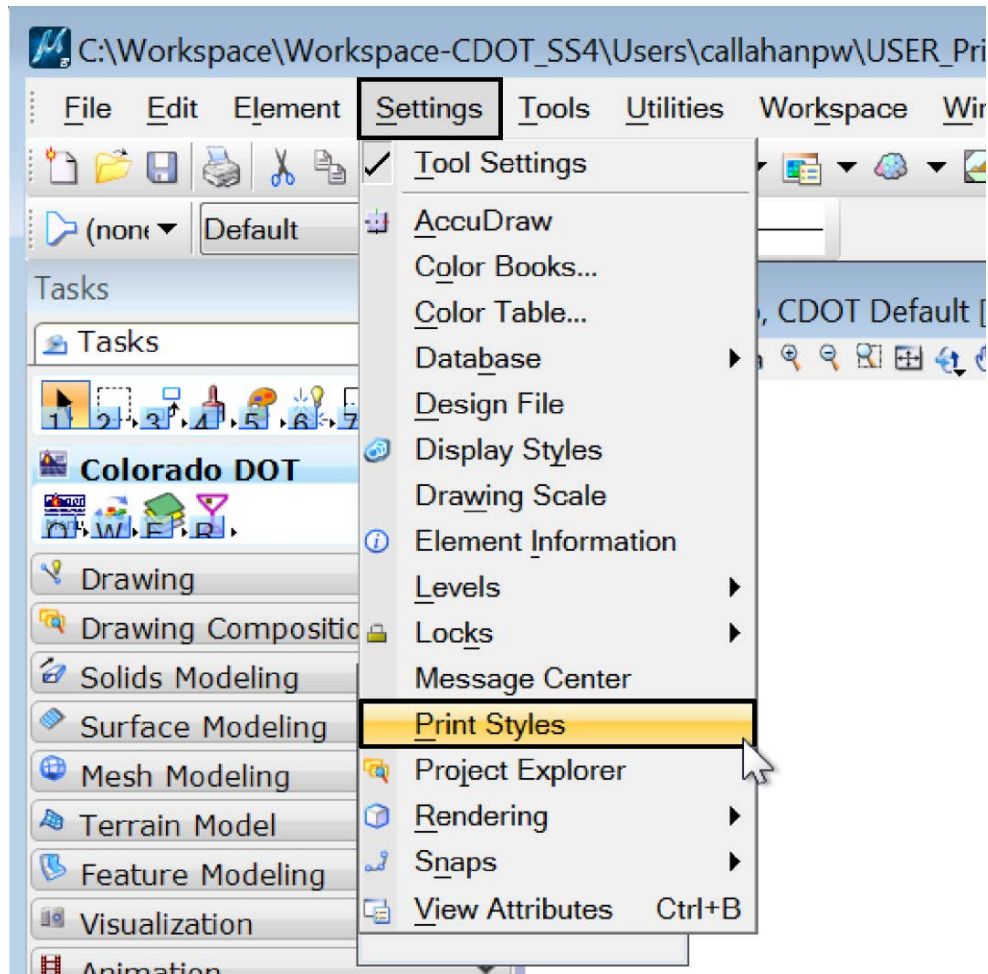


To set a User default printer, the dgnlib needs to be edited. This must be done in MicroStation.

10. Open MicroStation **locally** by clicking on the MicroStation icon on your desktop, or going to **Start > All Programs > Bentley > MicroStation V8i (SELECTseries 4) > MicroStation V8i (SELECTseries 4)**.
11. Click the **Cancel** button in the **ProjecWise Log in** dialog box.
12. In the MicroStation Manager, navigate to your new dgnlib file in **C:\Workspace\Workspace-CDOT_SS4\Users\YourNameFolder** and select **USER_PrintStyles.dgnlib**.
13. Change the **Files of Type** to **All Files**.
14. Next, change the **User** to **your name**. Do not use CDOT User! We are setting up your default.
15. Click the **Open** button to continue.

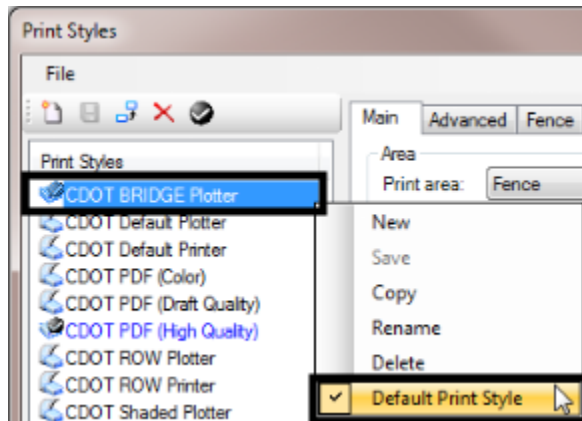


16. From the MicroStation menu bar, select **Settings > Print Styles**.

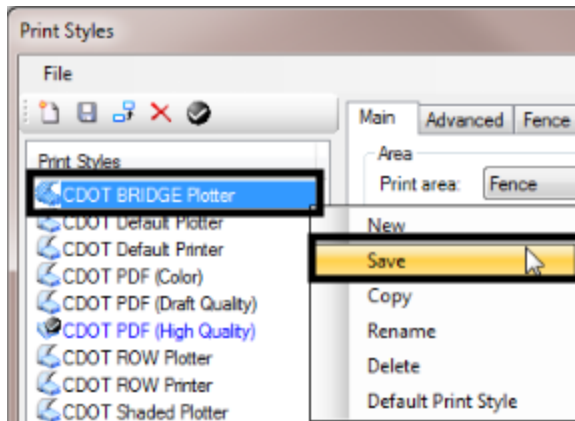


In this example, we will make the **CDOT ROW PDF** print style the new default. Any of the print styles can be set as default by follow these steps.

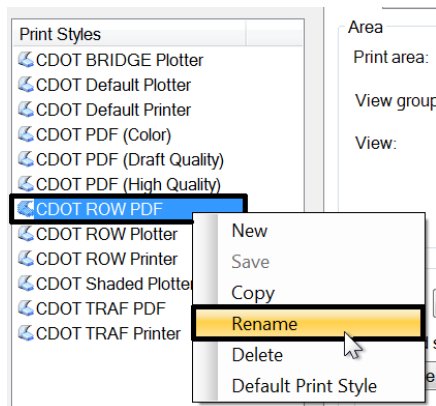
17. **Right-click** on the **CDOT Bridge Plotter** and turn off the toggle for Default Print Style by clicking on **Default Print Style**.



18. **Right-click** on it again and select **Save**.



19. **Right-click** on **CDOT ROW PDF** and click **Rename**.



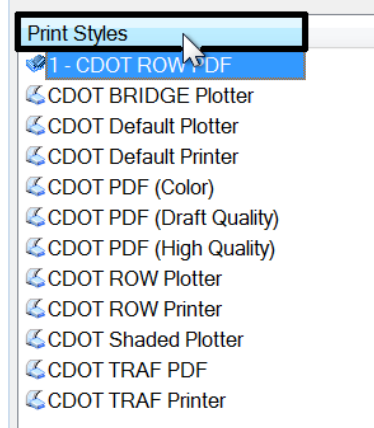
The next steps set your default print style and move it to the top of the list.

20. **Rename** the file to **1 – CDOT ROW PDF** and hit the **Enter** key.

21. **Right-click** on the **1 – CDOT ROW PDF** again and toggle on **Default Print Style**.

22. **Right-click** on the **1 – CDOT ROW PDF** again and click **Save**.

23. At the top of the list, click on the column name **Print Style** to resort the list.



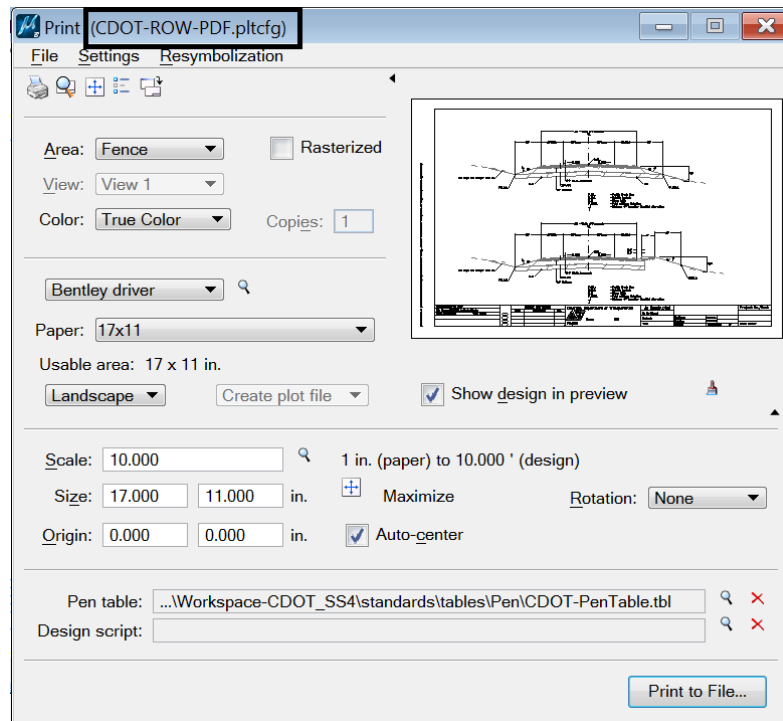
In this sample, if you wish to sort the other ROW print styles, rename them with numbers, save, and resort just like we did in the last steps.

24. Once you have completed your changes, **close** the **Print Style** dialog box by clicking on the **X** icon in the top right.

To test your settings, get out of MicroStation and open a sheet file from ProjectWise.

25. Open a sheet file in MicroStation from ProjectWise.

26. Click on the **Print** icon. You should see the new default print style set as default now.



Known Printing Issues

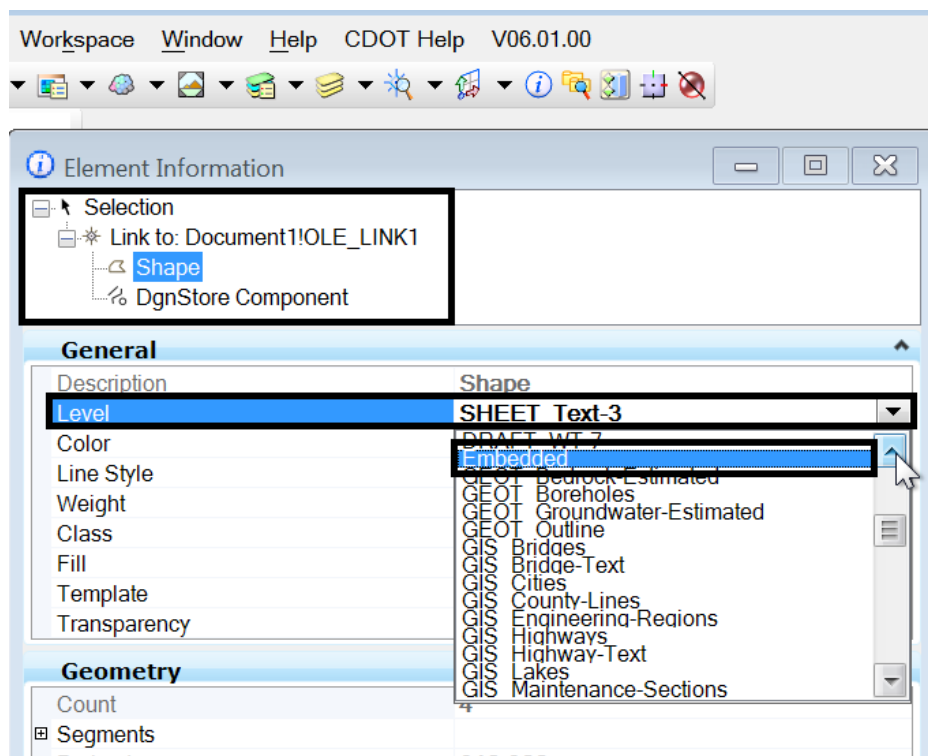
Printing files with BMP images imported into MicroStation file

MicroStation files opened from ProjectWise with BMP images imported into the file have been known to crash MicroStation when attempting to print the dgn file. Changing the image to a TIF format fixes this issue. If the file is exported to a local drive and then printed, there is no issue.

Microsoft Word and Excel files inserted into MicroStation

MicroStation files that have Microsoft Word or Excel files embedded or linked into the file have been known to crash MicroStation when attempting to print the dgn file. Setting the level for the Microsoft information to the active level called Embedded will fix this issue.

If the file currently has an imbedded or linked document, the level can be changed by selecting the edge of the link and clicking on the **Element Information** icon in the primary tools toolbar.



1. Expand the **Selection** folder until you can select **Shape**.
2. Open the **General** tab and click on the assigned level. Change the level to **Embedded**.
3. Close the **Element Information** dialog box.