

15.0 MoDOT Plotting

Network Plotting is designed to allow MoDOT MicroStation users the ability to plot design files to plotters connected to MoDOT's in-house network plotter system depending on your location. It has the following features:

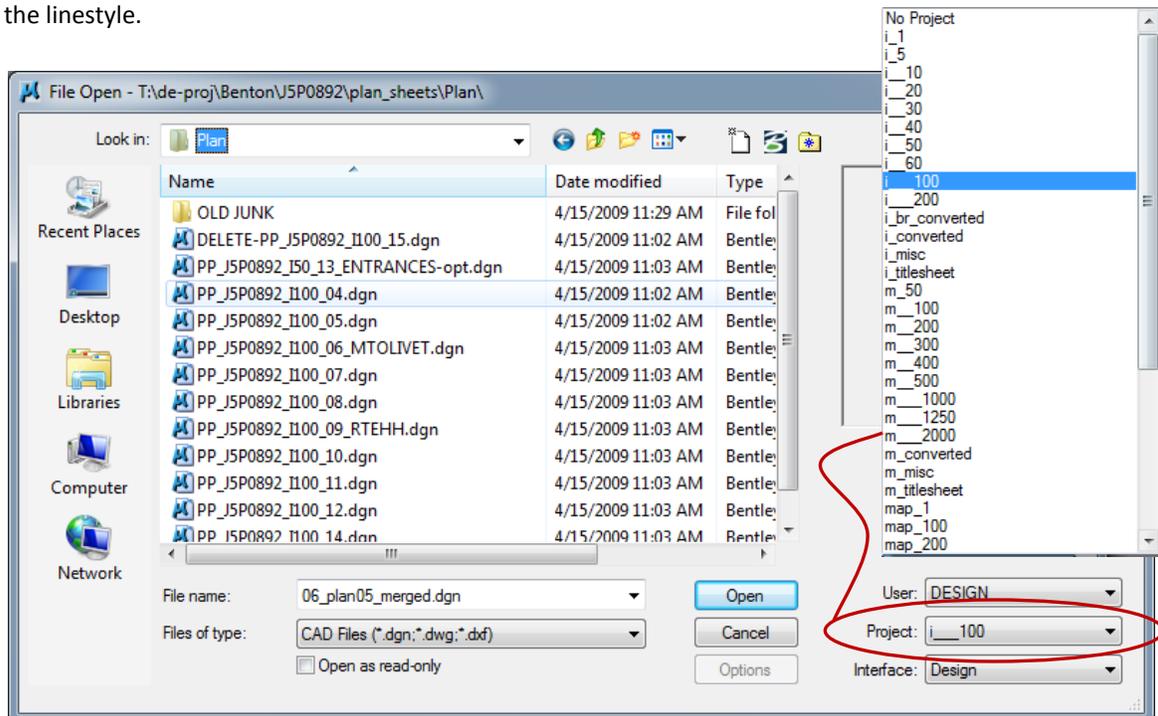
- Plotter selection
- Location selection
- Paper size
- Color, Black & White, Gray scale
- Plot multiple or single files
- Scale factor
- Number of copies
- Seal Manually option
- PDF File Destination
- Plot by either fence or border reference file

15.1 Plotting Preparation

In order to plot out the design files correctly you will need to be in the proper **Project**. The **Project** controls the how the linestyles appear when the design file is plotted. Selecting the corresponding Project to drawing scale will plot the drawing to scale.

As an example, if you are working with 1" = 100' plan sheets then you would choose the i_100 Project. Or if you are working with 1" = 50' plan sheets then you would choose the i_50 Project.

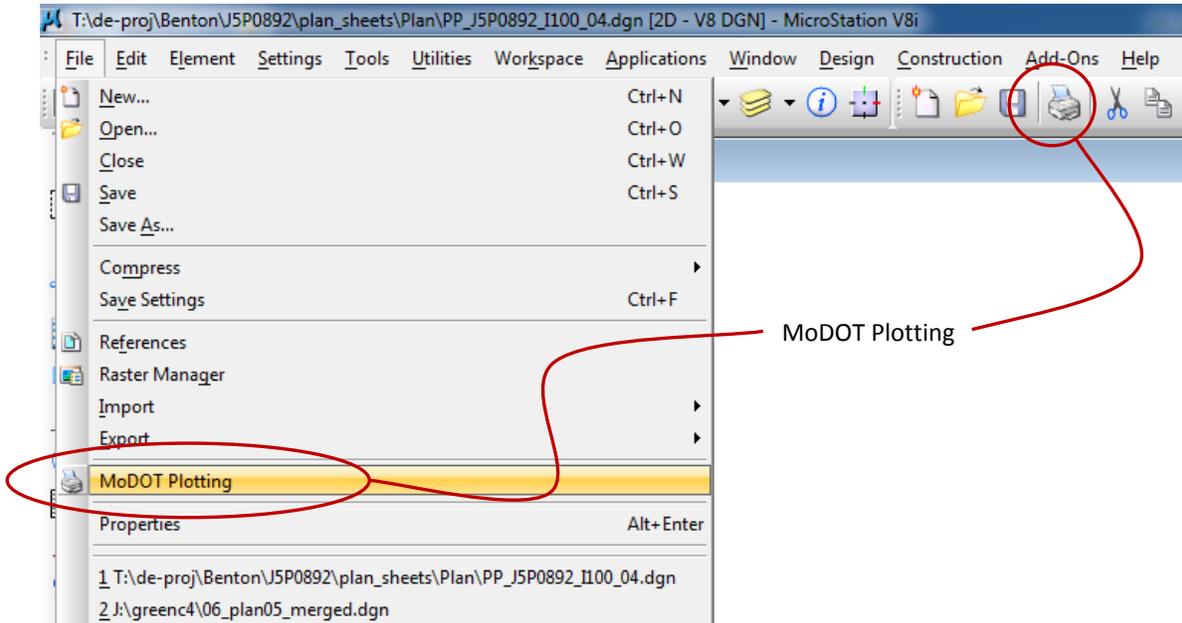
Using the correct **Project** will give you a "what you see is what you get" (wyswyg) display on your screen. A dash line will have the correct spacing between the dashes or the correct symbol at the correct scale for the linestyle.



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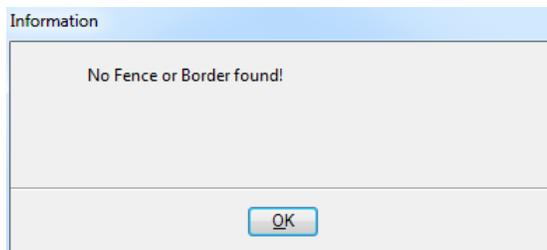
15.2 Begin Plotting

There are three ways to activate MoDOT Plotting. The first way is under the pulldown menu option of **File**. The second is located on the Standard Toolbox, all you have to do is select the printer icon and the MoDOT Plotting is started. The third way is to use the “hot keys”



When MoDOT Plotting is activated it looks for one of two things. First it looks for an active **Fence**. If it finds an active fence then MoDOT Plotting will generate its plot data from the contents of that fence. If there is no active fence then MoDOT Plotting will look for a referenced border. This referenced border is 1 of 2 reference files called **plot2d.dgn** or **plotdata.dgn**.

If you do not have a Fence or a Border plotting will fail and you will get the following dialog information box.



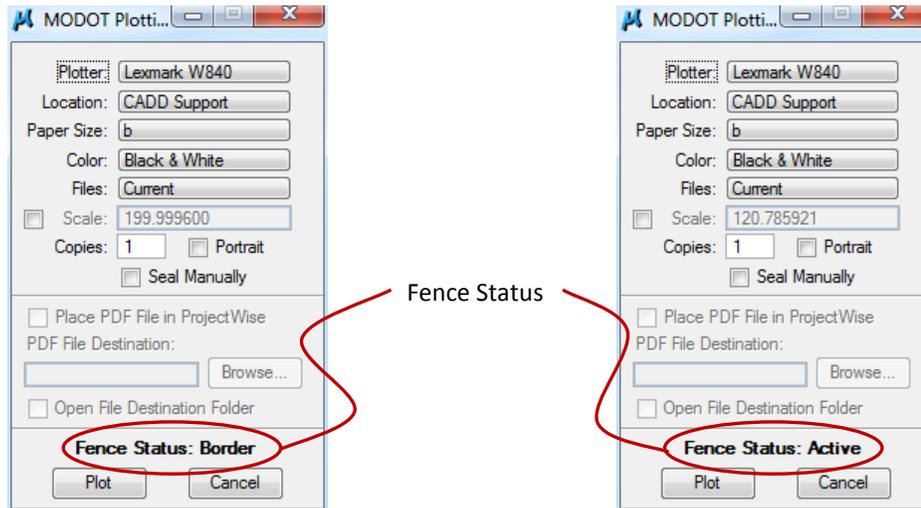
Another important facet to MoDOT Plotting is the file name. You cannot have any spaces in the file name.

Also, these symbols are not allowed in the file name:

\ / : * ? < > “ & = ,

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The following shows MoDOT Plotting with a **Fence Status: Active** (Fence is active) and a **Fence Status: Border** (Reference file is active).



15.3 MoDOT Plotting Settings

Within MoDOT's plotting routine there are a number of options that you can choose from.

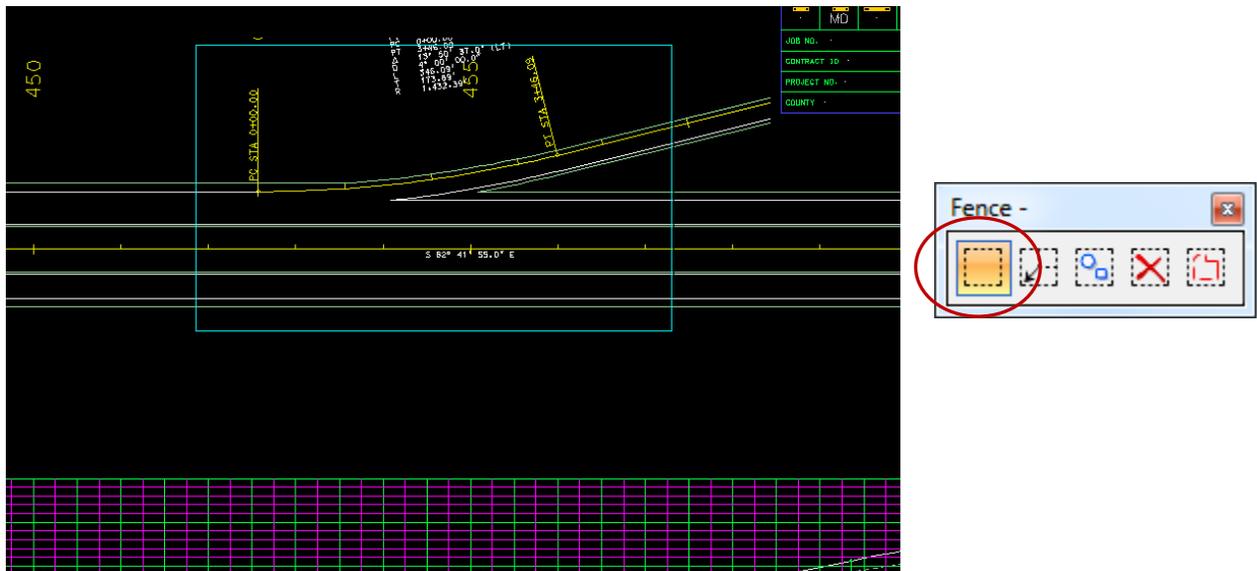
Plotter	This will allow the user to choose a plotting device from a list of plotters.
Location	This will allow the user to specify a location to send a plot, depending on the choice of the plotter.
Paper Size	This will allow the user to choose from the various paper sizes depending on the choice of the plotter.
Color	This will allow the user to select either color, black & white, or grey scale plots.
Files	This will allow the user to send single plots, multiple plots, or multiple borders in the file.
Scale	This will allow the user to send a plot at a scaled size other than the default border size.
Copies	This will allow the user to enter in a number of copies to plot without having to send the same plot repeatedly.
Portrait	This allows the plot to be rotated from a "landscape" to a "portrait" print.

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Seal Manually	This will place a mask around the text in the sealing area for wet sealing a sheet.
PDF File Destination	This allows the user to place the PDF files being created from the MicroStation files to a certain folder on the network.
Plot	This allows the user to submit the plot(s) to the selected plotting device.
Cancel	This button unloads the plotting application without submitting a plot.

15.4 Plotting Using a Fence & Scale Factor

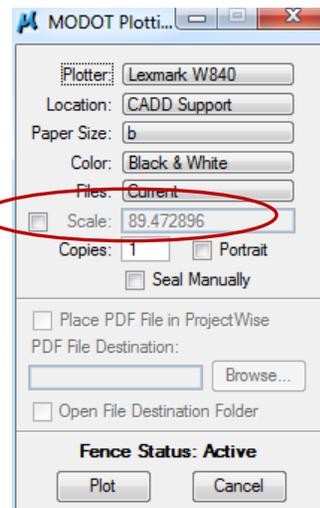
Using the Place Fence tool, place a fence around the geometry that you would like to plot.



Start the MoDOT Plotting routine.

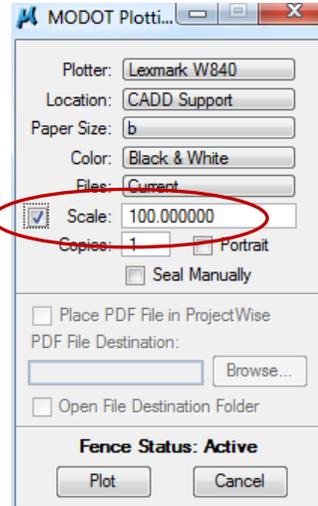
Fill in the dialog options, as you prefer.

If the Scale option is unchecked you will get a plot that will fit the size of the paper that you selected.



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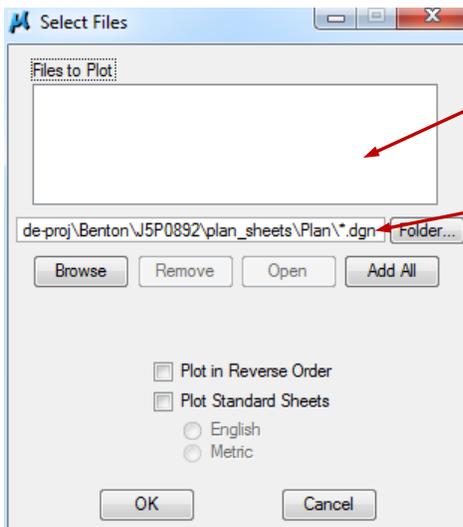
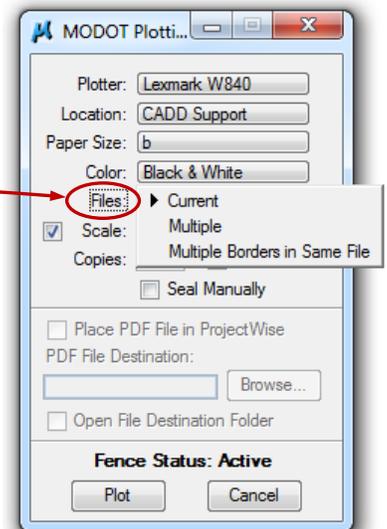
If you need to apply a particular scale factor to your plot you can select the Scale option to make it active. Once the Scale field is active you can enter a scale factor in the input field. The value *cannot* be less than the value shown in the input field.



15.5 Plotting Multiple Design Files

Within the MoDOT plotting routine under the “files” button there is an option to plot multiple plots.

Selecting this “Multiple” option will bring up the **Select Files** dialog box.



This field displays the files to be plotted.

This field displays the directory you are currently working in.

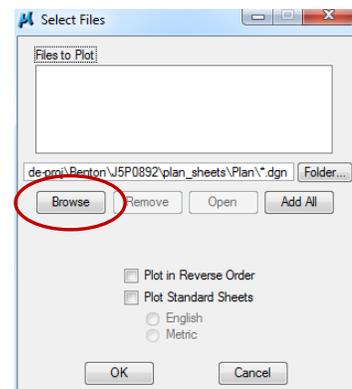
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Browse	This will allow the user to navigate through directories to choose design files for plotting.
Remove	This will allow the user to remove one or more design files from the “Files to Plot” field.
Open	This will allow the user to leave the current drawing and enter the selected file keeping the “Select Files” dialog box open and loaded with the files to plot.
Add All	This will allow the user to add all the files in the selected directory.
Plot in Reverse Order	This will allow the user to plot in a reversed order. This option is for the plotters that plot the drawings face up.
Plot Standard Sheets	When plotting Standard Sheets this option should be checked. This will allow the next two options to open up.
English	Choosing this option allows you to plot an English Standard Sheet. The plotting routine will open the file and turn off level 46 the Metric information.
Metric	Choosing this option allows you to plot a Metric Standard Sheet. The plotting routine will open the file and turn off level 45 the English information.
OK	This option allows the user to send the information to the MoDOT plotting dialog where a click on the plot button begins the process.
Cancel	This cancels the multiple plot option and returns you to the MoDOT plotting dialog.

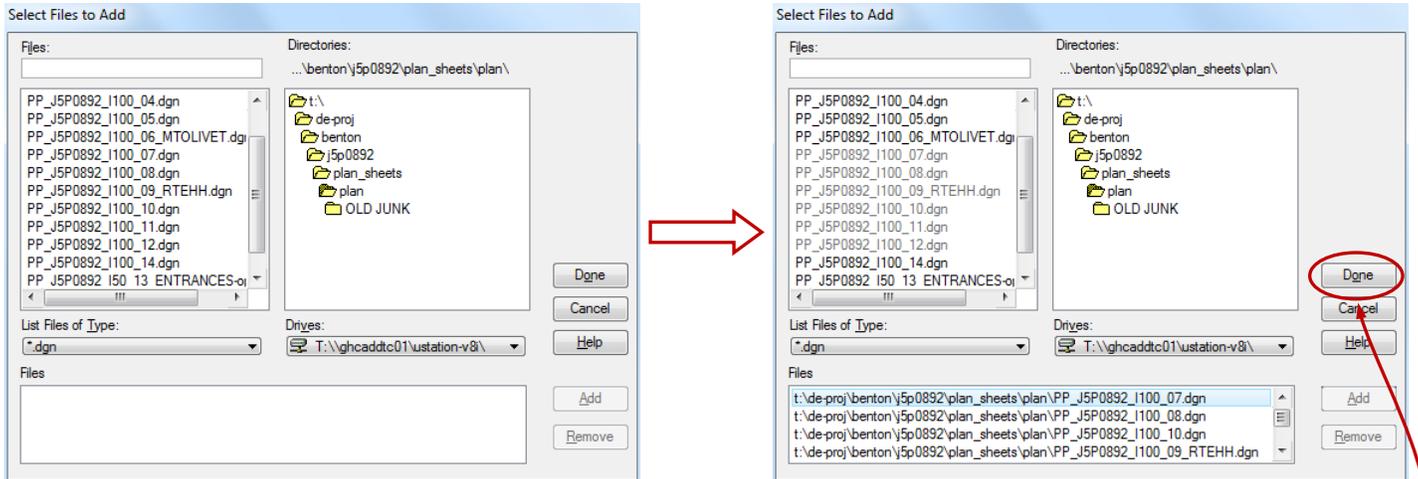
To plot multiple files at one time

1. Start the MoDOT plotting routine.
2. Set the plotting parameters as you need.
3. Click on the “Current” button and select the “Multiple” option.
4. Click on the “Browse” button.
5. Choose the desired files for plotting by selecting and clicking the “Add” button.

After the files are picked you can still “Add” or “Remove” files as needed by highlighting the file and clicking the appropriate “Add” or “Remove” buttons.

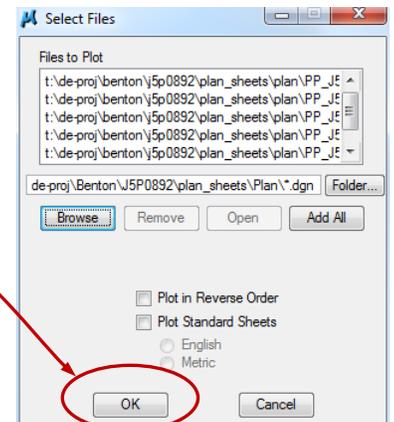


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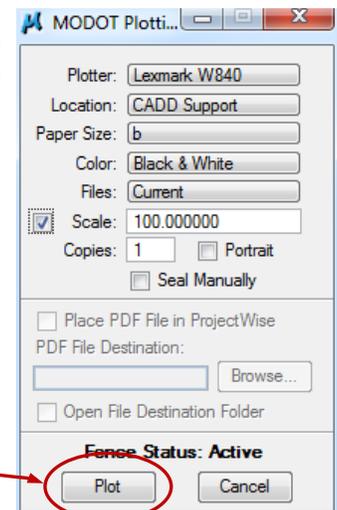
- Click on the “Done” button when you are finished choosing the desired files for plotting and it will bring you back to the Select Files dialog box.

- It is here that you may want to check the “Plot in Reverse Order” button, only if you are plotting to a plotter that plots face up. Also, if you are plotting Standard Sheets you will want to select the “Plot Standard Sheets” option and it will give you a choice of English or Metric to choose from. Click the “OK” button.



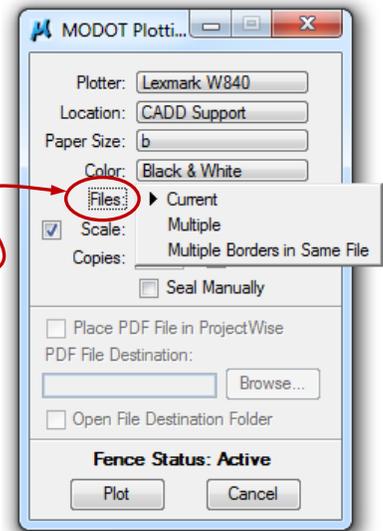
- This will bring you back to the original MoDOT Plotting dialog box where a simple left click on the “Plot” button starts the process of sending the plots to the plotter.

When plotting multiple plots MicroStation will open up each file that you selected, turn on the lineweights, locate the plotdata border file and place a fence or if the border file is not present it will do a fit view and place a fence around the geometry and plot the drawing to the selected plotting device.

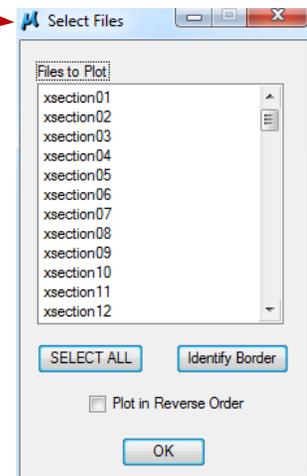


15.6 Plotting Multiple Borders in the Same File

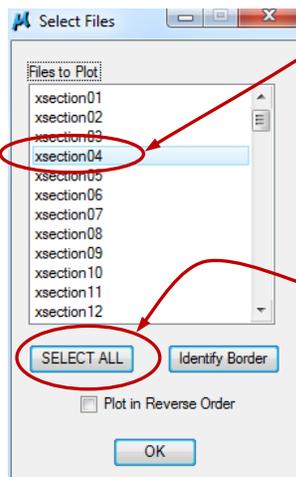
Within the MoDOT plotting routine under the “Files” button there is an option to plot “Multiple Borders in Same File”:



When you choose this option you will get the “Select Files” dialog box that has a pick list.



From this dialog choose the border(s) to plot. You can use the control key to build the list.



The “Select All” button does exactly that.... it will select all the borders in the list for plotting.

The “Identify Border” allows the user to identify a border name from the design file. Click on the “Identify Border” button then in the design file click on a border and the border name will highlight.

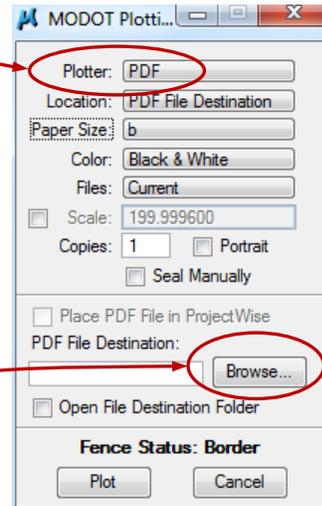
Click the “OK” button when you are finished selecting the borders that you want to plot. This brings you back to the main MoDOT Plotting dialog box where a simple click on “Plot” button initiates the routine.

15.7 Plotting to PDF File

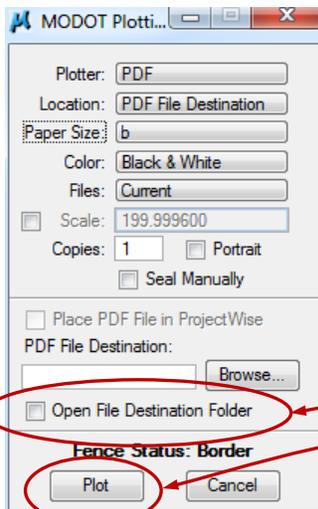
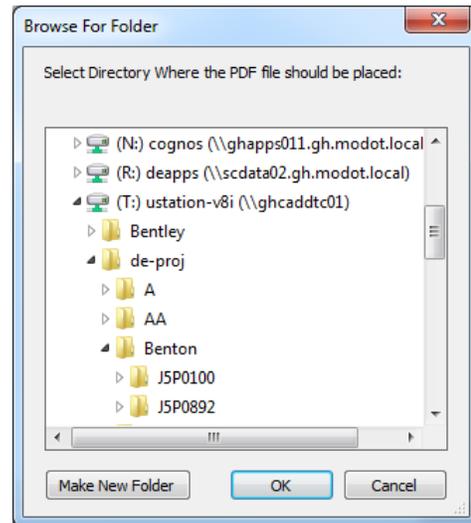
Within the MoDOT plotting routine, there is also an option to print the file into a PDF file. This option is very useful because there may be someone that wants to see the plans, but don't have a cadd program to view it.

To plot a file to a PDF file

1. Start the MoDOT plotting routine.
2. Set the Plotter option to "PDF".
3. Set the plotting parameters as you need.
4. Click on the "Browse" button for the PDF file destination location for the PDF files to be stored.



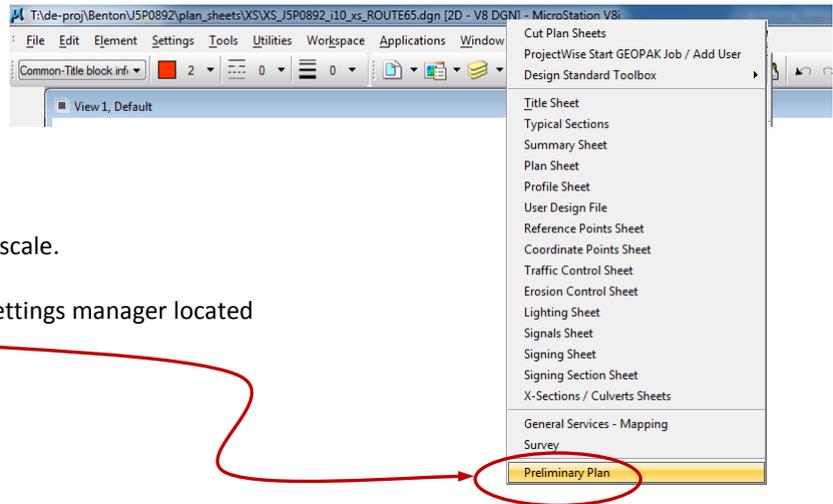
5. In the **Browse For Folder** dialog box, navigate to the folder to where you are wanted to place the PDF files being created. Then select the "OK" button.



6. Finally click the "Plot" button. This will create the selected MicroStation files into separate PDF files in the desired location that you previously specified. There is also an option in the MoDOT Plotting to "Open File Destination Folder", which will open Windows Explorer to the location of the created PDF files.

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15.8 Plotting Preliminary Design

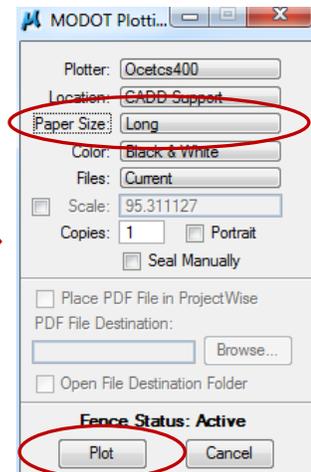
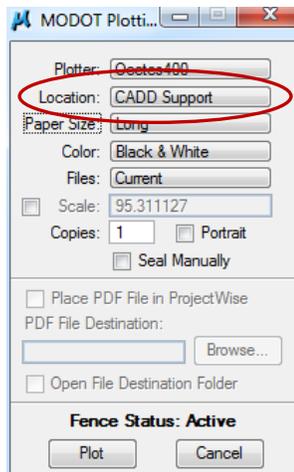
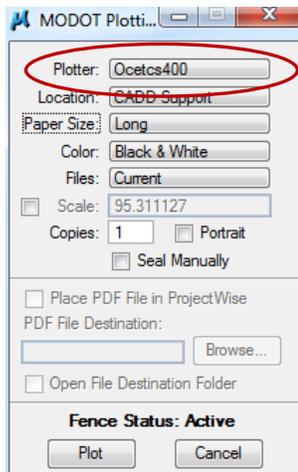
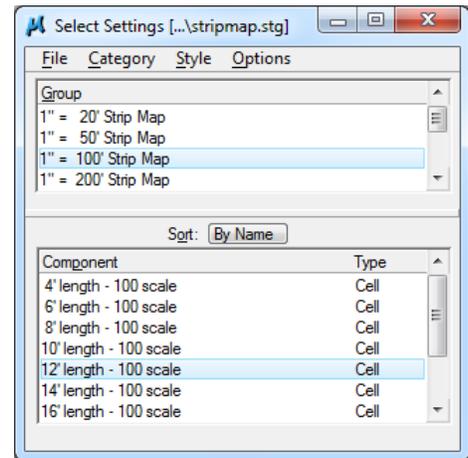


There is a simple way to plot strip maps to scale.

First you must open the Preliminary Plan settings manager located under the MoDOT pull down menu.

To plot a long plot (Strip Map) from MoDOT plotting

1. From MoDOT choose the Preliminary Design settings manager.
2. In the Group area choose a desired scale.
3. From the Component area choose a length.
4. Place the cell and adjust the location if need be.
5. Place a block fence based on the extents of the cell.
6. You may delete the cell or turn the level off that it was placed in if desired.
7. Complete by starting MoDOT Plotting and choosing desired plotter, desired location and a paper size of long and then "Plot".



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Imperial (English)

Drawing Scale	D-Size Paper Scale	B-Size Paper Scale
1" = 1'	1	2
1" = 5'	5	10
1" = 10'	10	20
1" = 20'	20	40
1" = 50'	50	100
1" = 100'	100	200
1" = 200'	200	400

Metric

Drawing Scale	D-Size Paper Scale	B-Size Paper Scale
1:100	2.54	5.08
1:500	12.7	25.4
1:1000	25.4	50.8
1:1500	38.1	76.2
1:2000	50.8	101.6
1:2500	63.5	127