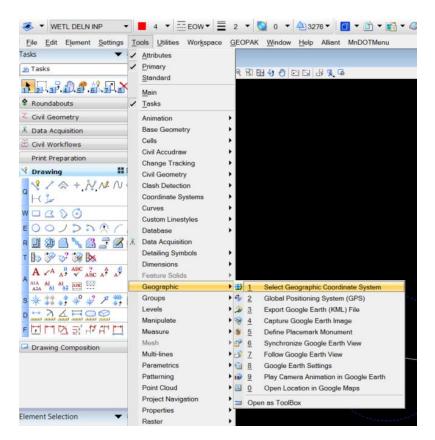


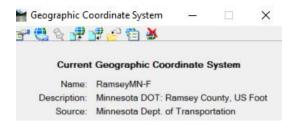
Adding Image Service (WMS) to MicroStation V8i

1) Assign a Geographic Coordinate System to the Drawing

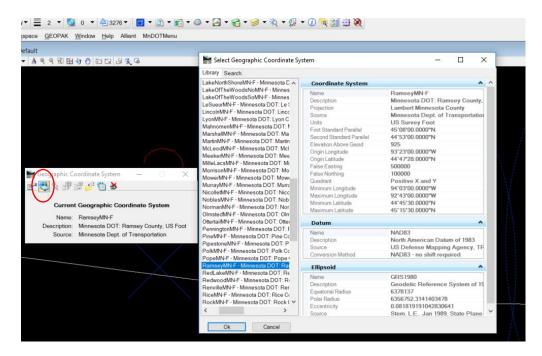
a) Click Tools>Geographic>Select Geographic Coordinate System.



b) The following dialogue box will appear. It will be blank or it might already contain a geographic coordinate system. For this series of screen images, MnDOT's Ramsey County US Foot is the desired coordinate system:



c) Click on 'From Library' and the 'Select Geographic Coordinate System' window appears.

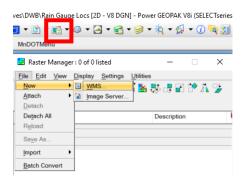


d) Select the appropriate geographic coordinate system for the project. Alliant has prepared a favorites folder that includes commonly used coordinate systems. Click OK.



e) Close the Geographic Coordinate System window or move to the side.

- 2) Create a new WMS configuration file with the Raster Manager dialogue box.
- a) Click the 'Raster Manager' icon. Select the 'File' dropdown and choose File>New>WMS.



 b) In the 'WMS Map Editor' window, enter 'https://imageserver.gisdata.mn.gov/cgi-bin/wms' and press enter.

WMS Map Editor - Creating new map		– 🗆 X
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[https://imageserver.gisdata.mn.gov/cgi-bin/wms		V Servers
Available Layers	Settings Preview	
MnGeo WMS service (aerial photography)	Server	^
⊕ Ø Regional ⊕ Ø Twin Cities metro	Title	MnGeo WMS service (aerial photography)
± ∅ Statewide	URL	https://imageserver.gisdata.mn.gov/cgi-bii
	Map Definition	^
	Layers	
	Range Method	Use range limits
	Map Range Limits	
	Layer Ranges	Use intersection of ranges of layers
	Model Coordinate System	Use useful range as limit

c) In the 'WMS Map Editor' window, click on the 'Servers' button in the upper right. A list of servers appears. Select the service desired, make sure the 'Connection' tab lists it as 'connected' and not 'error' or blank, click 'OK'.

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https://imageserver.gisdata.mn.gov/cgi-bin/wms	connected		
			Ok Cancel

d) In the 'WMS Map Editor' window, browse the 'Available Layers' to select the aerial photography needed for the project. After selecting the aerial photographs needed, click 'Add to map'. The selected layer, or layers, will appear in the lower left of the 'WMS Map Editor' window.

🎬 WMS Map Editor - Creating new map		- 🗆 X
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10 2010 color north counties	Minimum Y	4956641.0644268012
- 🚳 2010 color Scott	Minimum X	416896.7511358289
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- 🕼 2012 color Twin Cities	East	92*43*00.0000"W
- 👰 2013 cir Carver	West	44*45'30.0000"N 94*03'00.0000"W
- 2013 cir Dakota	Coordinate System	EPSG:26915
10 2013 cir Scott	Format	image/jpeg
- @ 2013 color Carver	URL	https://imageserver.gisdata.mn.gov/cgi-b
^[2] 2013 color Dakota ^[3] 2013 color Scott	Version	1.1.1
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e) Click Save in the lower right of the 'WMS Map Editor' window. Select "No Wizard" and click 'OK'.

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f) A 'New WMS file' window appears with the default save location as the original file folder. Change location if necessary and click 'save'.

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Name:	Rain Gauge Locs.xwms	
Description:	Rain Gauge Locs	
File Name:	Rain Gauge Locs.xwms	
Format:	xwms Format	

3) Attach WMS file within the Raster Manager Dialogue box

a) Click on the 'Raster Manager' and select File>Attach>WMS.

\Rain Gauge Locs [2D - V8 [GN] - Power GEOPAK V	8i (SELECTseries 2)
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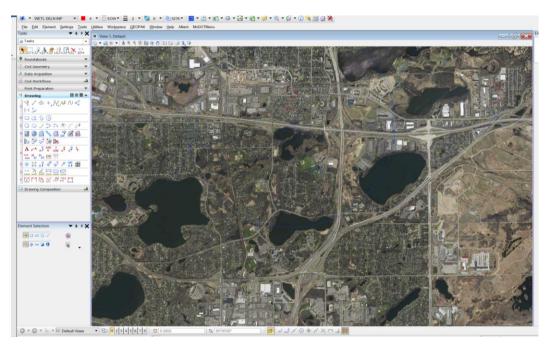
b) In the 'Attach Raster Reference File' dialogue box, select the previously created WMS configuration file (ending in .xwms). Click OK.

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OK Cance	el .

c) Verify under the 'Geometry' tab that the option for 'Inherit GeoCS from model' is set to 'Not Inherited' and click 'Attach'.

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Logical Name Description Geometry Geo Priority Inherit GeoCS from Model Color Display Print Raster Header Not Inherited		
Geo Priority Raster Header Inherit GeoCS from Model Not Inherited Color Display Print	Logical Name	
Display Print	Geo Priority	

d) The WMS Aerial photography should be successfully placed in the drawing per the appropriate geographic coordinate system for the project.

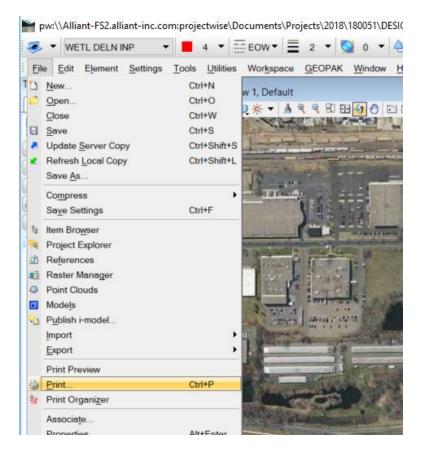


733 Marquette Ave Ste 700 Minneapolis, MN 55402 612.758.3080 main 612.758.3099 fax

www.alliant-inc.com

4) Printing with Images from a WMS Server in Microstation

a) Prepare your area to print, with either a fence or setting up the view. Select 'Print' from the 'File' dropdown menu.



b) In the 'Print' window, set the 'Area:' in the General Settings section to the desired choice.

Print (MnDOT-pdf.pltcfg)	—		\times
<u>File</u> <u>Settings</u> <u>Resymbolization</u>			
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General Settings			
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c) In the 'Print' window, select File>'Select Bentley Driver'

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 d) Click the dropdown menu for the folder displayed at the top of the 'Select Printer Driver Configuration File' menu. Navigate to Projects\WorkspaceV8i\Standards\MNDOT_20180323\DOT_MICRO\pltcfg

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Description:				
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Extension:	Printer Driver Configuration Files [*.pltcfg;*.plt]			
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e) Select MnDOT-pdf-wms.pltcfg and click 'Open'. A warning might appear "Document MnDOT-pdfwms.pltcfg is read only. Would you like to open it anyway?" Click 'Yes'.

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f) To print in color, set the 'Color:' choice to 'True Color'.

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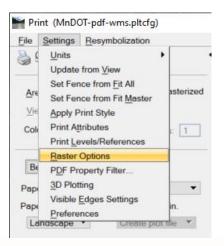
g) To print in color, while still in the 'Print' window, go to the 'Print Resymbolization' section in the bottom and click the magnifying lens. Select 'alliant_color_final.tbl" and click 'Open'

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Folder					
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Name		Description	File Name	Folder Id	
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h) A warning might appear "Document alliant_color_final.tbl is read only. Would you like to open it anyway?" Click 'Yes'.

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i) In the Print dialog box, go to the Settings tab>Raster Options



j) Change the raster quality factor to 30. This should keep the printed pdf file size down and prevent the error where the WMS server is not able to display data at certain (higher) resolutions.

Print - Raster Options
General
Print raster images
Raster Color
Print raster in grayscale
Print monochrome raster as-is
Brightness: 0 -100 < > 100
Contrast: 0 -100 < > 100
Raster Quality
Quality factor: 30 1 < > 100
Printer resolution (dpi): 75
Raster resolution (dpi): 22
<u>O</u> K Cancel

k) While in the 'Print' window, select 'Print' from the 'File' dropdown menu. The 'Select a Wizard' will appear. Choose 'No Wizard' and select 'OK'.

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Make this wizard the default.

- I) In the 'Save Print As' window, navigate to a folder using the 'Select' button in the 'Folder' section. Set the name in the 'Document' section under name. Set the 'Format' to *.pdf. The 'Application should default to 'Bluebeam', if it does not, choose it from the 'Application' menu.
- m) Your document will save as a .pdf file. Open the .pdf file and print in a .pdf-reading software such as Revu. Congrats, you have created a WMS Aerial and Learned how to Print it.

