

Accessing WMS from Bentley Microstation

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This document outlines the steps to access a WMS service from within Bentley MicroStation V8i (SELECT series 3).

- 1. Open MicroStation. Open Raster Manager (File \rightarrow Raster Manager).
- 2. Within the Raster Manager open the WMS Map Editor (Raster Manager \rightarrow File \rightarrow New \rightarrow WMS):

📕 WMS Map Editor - Creating new map					
1 🖻 🖯 🖫					
https://mapsengipe.google.com/04010150827404158855-07485517900573923533-4/wme/		Canvara			
Available Layers	Settings Preview (Read	Settings Preview (Ready)			
E- Google sample imagery for SADA Systems, Inc. 2014-08-14	Server A				
ca_sacramento_20140419_nrg					
ca_sacramento_20140419_rgb	Intel Loogle Maps Engine WMS Service IIPI https://mapsengine.google.com/4/2/0/010150927/0/159955.07/9551790057392353.4/ump/				
Ca_losangeles_20140424_nrg	- Onc nups	Unc nups.//mapsengme.google.com.445/0401013062/404136633/0746331/3003/35233354/Wills/			
	Map Definition	Map Definition			
	Layers	04010150827404158855-18373224429966649899-4			
	Range Method	Use range limits			
	E Map Range Limits				
Add to map	Layer Ranges	Use intersection of ranges of layers			
	Model Coordinate	Syster Do not use as limit			
Map Layers	Map Coordinate S	use useful range as limit			
	E Projected Coordinate	\$ 4050205 220540000			
Layer I tite Layer Name	Maximum Y	4058705.773510003			
ca_losangeles_20140424_rgb 04010150827404158855-1837322442996664989	Maximum X	-13173463.202780416 40400347370314003			
1	Minimum 1	4043034.7722714032 12100001167405702			
	El Geo Coordinates	-1310001.13(433/33			
	North	34*13*20 6836**N			
	East	118*20/21 2402"			
	South	34*09'23 3789"N			
	West	118*24'18.5449"w			
	Coordinate System	EPSG:3857			
	Format	image/png			
	URL	https://mapsengine.google.com:443/04010150827404158855-07485517900573923533-4/wms/			
	Version	1.1.1			
	Transparent	True			
	Selected Layer	*			
	Name	04010150827404158855-18373224429966649899-4			
	Title	ca_losangeles_20140424_rgb			
	Parent	Google sample imagery for SADA Systems, Inc. 2014-08-14			
	Abstract	Raster layer			
	Opaque	False			
4 III +					
		Save Save and Attach Cancel			

- Type in the WMS URL in the box at the top of the editor with the prompt text of "Select or add URL for WMS Server. See sample for UT below: <u>https://mapsengine.google.com/04010150827404158855-12756172459874685526-4/wms/</u>
- 4. The editor will connect to the WMS service and display the available layers in the upper left and the WMS attributes in the settings tab on the right. Note that as you click on the various available layers, the attributes of the selected layer in the lower right are updated.
- 5. Select and highlight the layer you would like to add to the drawing and click the "Add to map" button.

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- 6. Click on the preview tab to see a preview of the full extent of the WMS image.
- 7. Click "Save and Attach" button. Saving will prompt for the file location of the .xwms file that Microstation uses to store WMS service definitions. (See Utah example at the end of this document.) Attach will open the Raster Attachment Options dialog and close the WMS Map Editor window.

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📕 Raster Attachment Optic	ons 🗖 🗖 📑	×			
🖃 🖓 Attachments					
C:\Users\abuck\Desktop\googleWMS.xwms					
General	*				
Level	Default				
Color	🔛 ByLevel				
Line Style	😂 ByLevel				
Weight	😂 ByLevel				
Class	Primary				
Priority	0				
Image	*				
Logical Name					
Description					
Geometry	*				
Geo Priority	Raster Header				
Inherit GeoCS from Model	Not Inherited				
Color	*	E			
Tint	[255,255,255]				
Contrast	0				
Brightness	0				
Invert	Do Not Invert Display				
Transparency	Hide				
Display Print	*				
Views	1-2-3-4-5-6-7-8				
Plane	Background				
Print	Printable				
Print Gamma	1.00000				
Display Gamma	1.00000				
Clip	Show				
Extended	*				
Snappable	Snappable				
Locked	Unlocked	Ŧ			
Attach	Cancel				

8. Change bolded parameters as desired and click the "Attach" button.



📕 googleWMSdemo.dgn [2D - V8 DGN] - MicroStation V8i (SELECTseries 3)					
: <u>Fi</u> le <u>E</u> dit Element <u>S</u> ettings <u>T</u> ools <u>U</u> tilities Wor <u>k</u> space <u>W</u> indow <u>H</u> elp					
🛛 🥪 🔻 Default 💽 🖓 🖓 🗸 🖓 0 🔹 🔂 0 🔹 🚱 0 🔹	• 🕘 🛛 • 📴 • 🖻 • 🖬 • 🚳 • 🚰 • 🥞 • 🦃 • 👯 • 👔	🖇 • 🕧 ঝ 🔰 🔛 📎			
Project Explorer Project Explorer Project Explorer Project Explorer Provide Ministry of the second seco	 Copy Copy Drop Actual Resolution (1:1) Fit to View Level Off Mirror More Rotate Scale Fit To View Delete Element Properties 		Element Selection		
Raster Manager : 1 of 1 listed File Edit View Display Settings Utilities			▲ ¹ / ₁ ×		
Description 🚫 Model					
Ø					
G → O → b → C Defaut → C 1 2 3 4 5 6 7 8 X -13177410.0305 Y 4054781.3300					
Element Selection > Identify element to add to set	IS Map bounding box is invalid	🤳 🖴 Default 🕴 1			

- 9. The WMS raster imagery is now attached to the DGN and available within the Project Explorer by expanding the +Models, +Default, and +Raster objects.
- 10. Right-click on the attached raster to access the context dialog. Select "Fit to view" to zoom to the full extent of the image. Note that the raster manager (show here at the bottom of the screen) also provides access to the raster tools.
- 11. You can open a previously defined WMS service by selecting the .XWMS file in the Raster Manager \rightarrow File \rightarrow Attach \rightarrow WMS.



Note: It looks like you can change the available image extent be editing the .xwms file's BBOX tag. But this has not been tested.

<?xml version="1.0" encoding="utf-8" standalone="yes"?> <BentleyWMSFile> <VERSION>1.3</VERSION>

<URL>https://mapsengine.google.com:443/04010150827404158855-12756172459874685526-4/wms /</URL>

<REQUEST>

<VERSION>1.1.1</VERSION>

<SRS>EPSG:3857</SRS>

<LAYERS>04010150827404158855-04736717251453158246-4</LAYERS>

<STYLES />

<FORMAT>image/png</FORMAT>

<TRANSPARENT>TRUE</TRANSPARENT>

</REQUEST>

<MAPEXTENT>

<BBOX>-12456178.1293523,4978514.43622464,-12454342.4463449,4980937.03449588</BBOX>

</MAPEXTENT>

<LayerList>

<LAYER TITLE="capitol_ut_saltlakecity_20130605_rgb_sample"

NAME="04010150827404158855-04736717251453158246-4" ABSTRACT="Raster layer" />

</LayerList>

<SERVICE>

<MAXWIDTH>1024</MAXWIDTH>

<MAXHEIGHT>1024</MAXHEIGHT>

</SERVICE>

<CapabilitiesRequest>

<URL>https://mapsengine.google.com/04010150827404158855-12756172459874685526-4/wms/</URL>

</CapabilitiesRequest>

<EditorData>

<RangeMethod>Calculated</RangeMethod>

<LayerRange>Intersection</LayerRange>

<UseModelCoordSysUsefulRange>False</UseModelCoordSysUsefulRange>

<UseMapCoordSysUsefulRange>True</UseMapCoordSysUsefulRange>

<ExplicitSRS>False</ExplicitSRS>

</EditorData>

</BentleyWMSFile>