

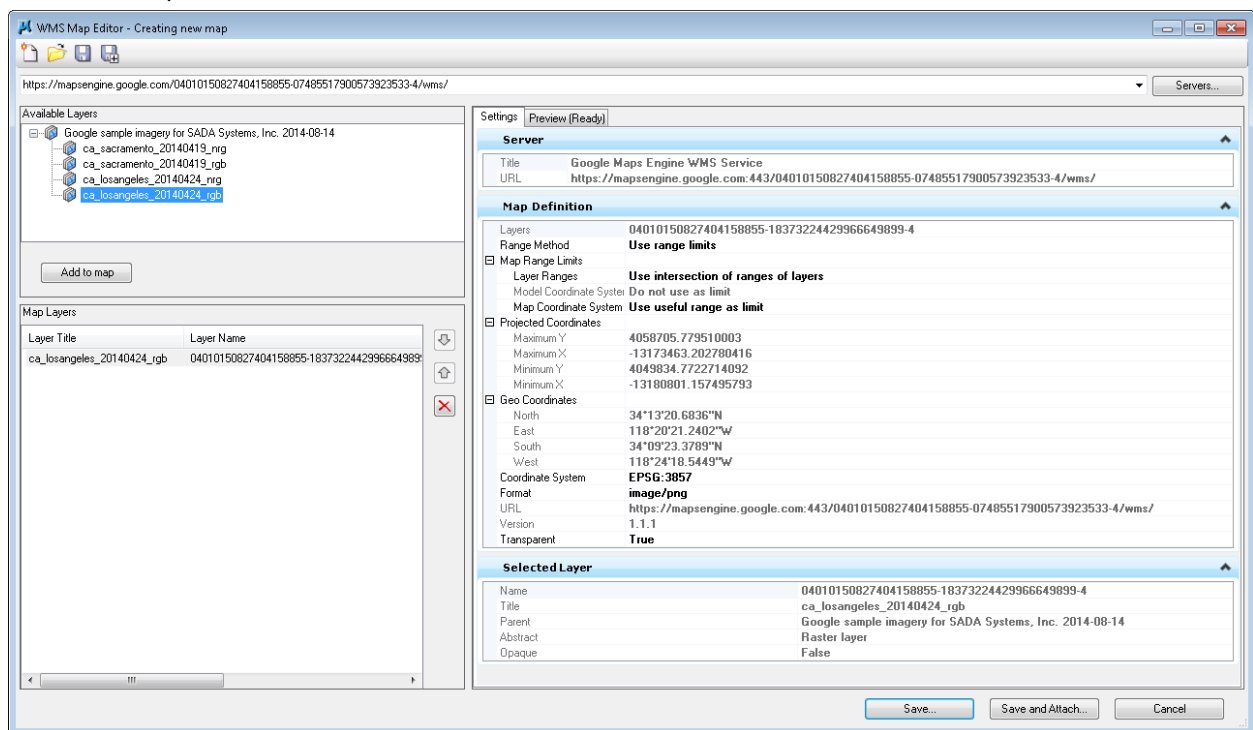
Accessing WMS from Bentley Microstation

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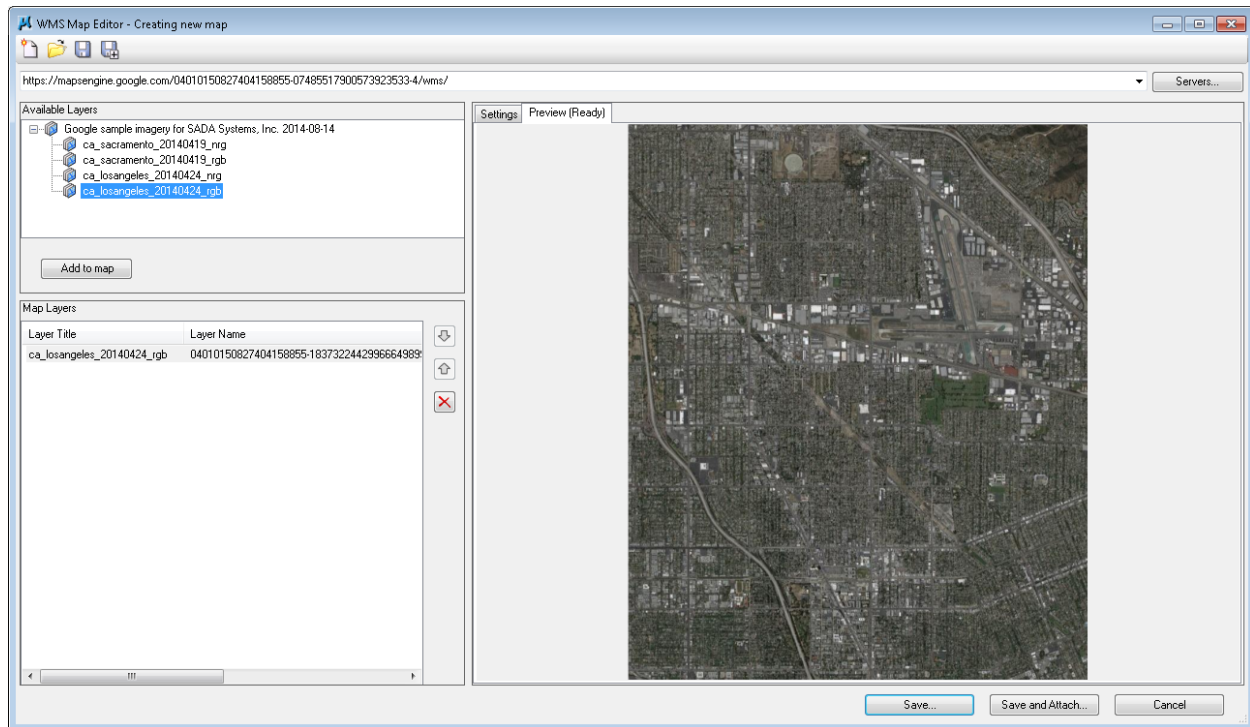
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This document outlines the steps to access a WMS service from within Bentley MicroStation V8i (SELECT series 3).

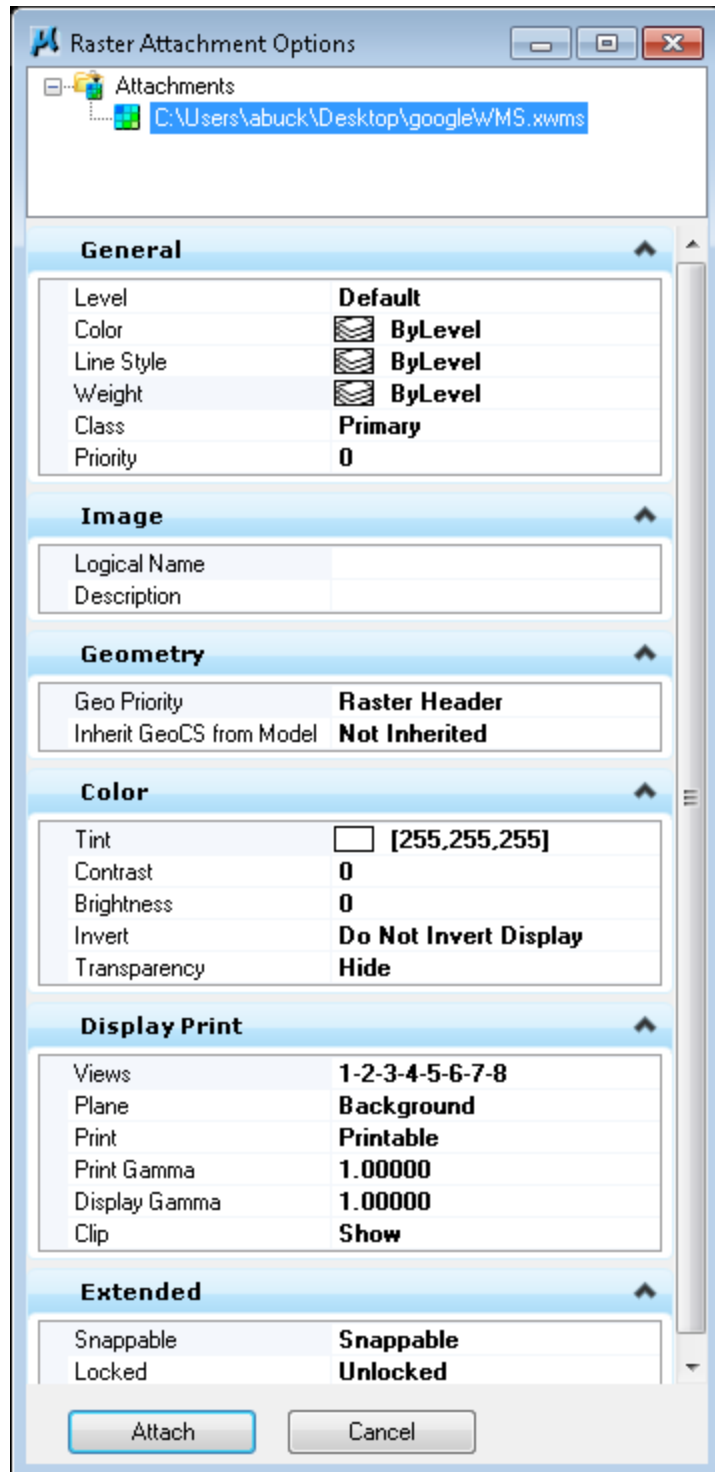
1. Open MicroStation. Open Raster Manager (File→ Raster Manager).
2. Within the Raster Manager open the WMS Map Editor (Raster Manager → File→ New → WMS):



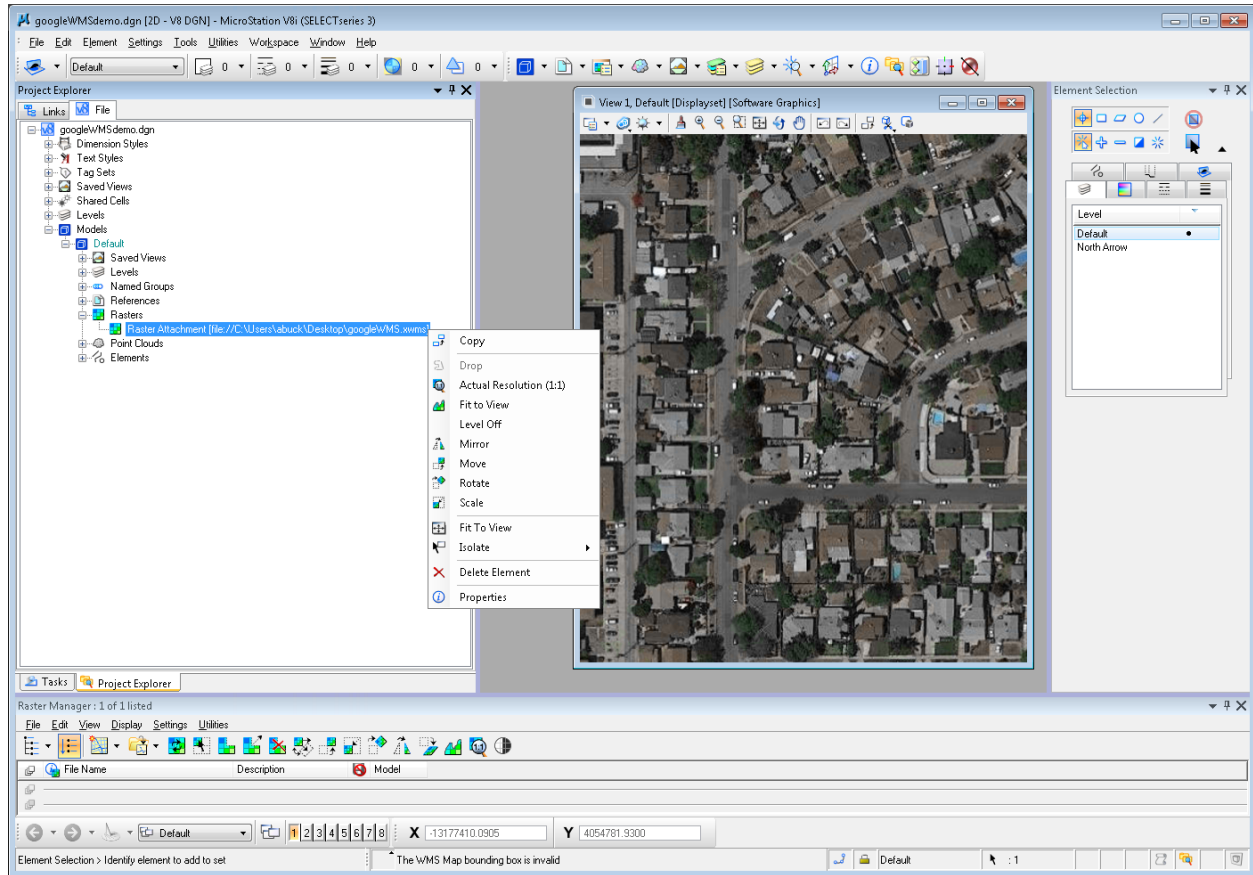
3. Type in the WMS URL in the box at the top of the editor with the prompt text of "Select or add URL for WMS Server. See sample for UT below:
<https://mapsengine.google.com/04010150827404158855-12756172459874685526-4/wms/>
4. The editor will connect to the WMS service and display the available layers 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.



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.



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



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 → File → Attach → WMS.



Note: It looks like you can change the available image extent by 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>
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    <RangeMethod>Calculated</RangeMethod>
    <LayerRange>Intersection</LayerRange>
    <UseModelCoordSysUsefulRange>False</UseModelCoordSysUsefulRange>
    <UseMapCoordSysUsefulRange>True</UseMapCoordSysUsefulRange>
    <ExplicitSRS>False</ExplicitSRS>
  </EditorData>
</BentleyWMSFile>
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