

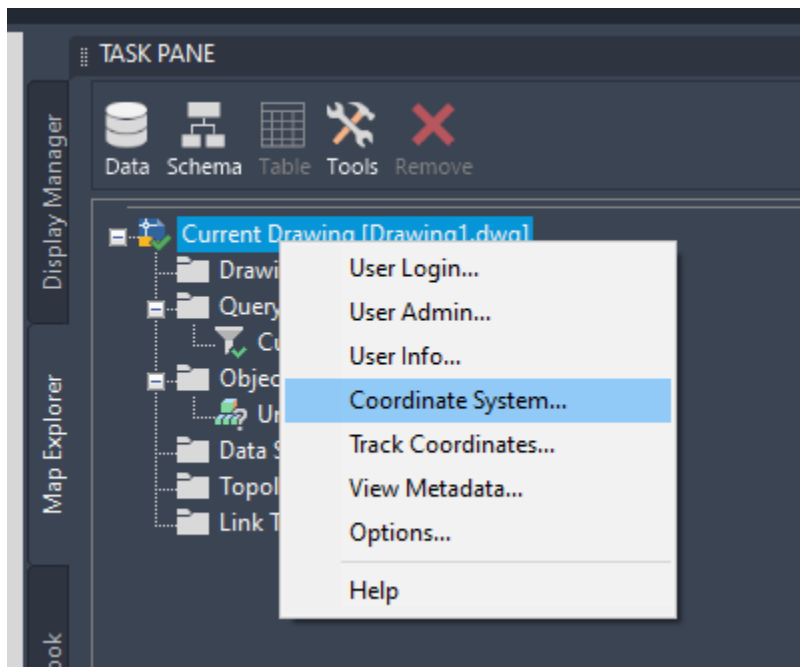
Adding Air Photo Web Map Services to AutoCAD Civil3D and Map3D

Updated March 22, 2022

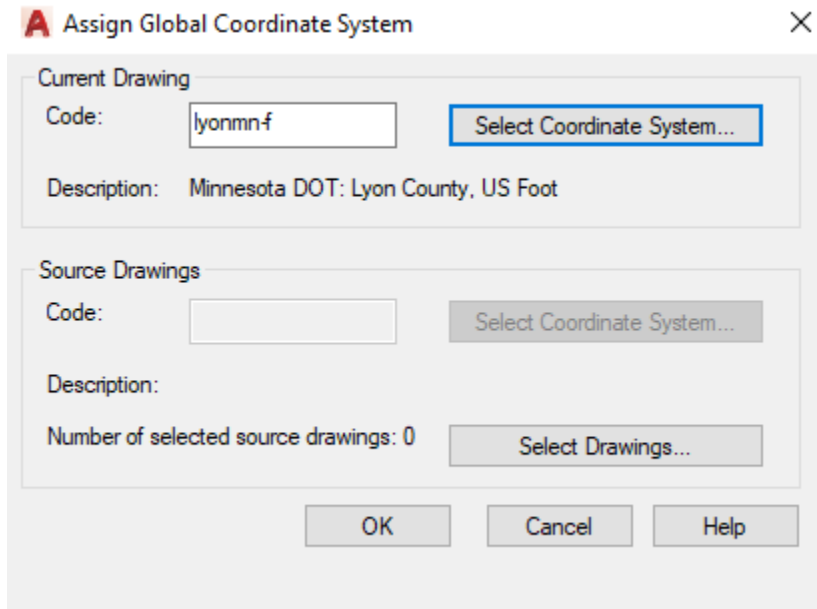
Users can add air photo web map services (WMS) to AutoCAD Civil 3D and Map 3D. These instructions outline the basic process to add the air photos to your CAD project, using MnGeo's [Minnesota Geospatial Image Service](#) as an example.

Assign a projection to your project

Assign a coordinate system by clicking on the Map Explorer tab within the Task Pane. Next click the current Drawing and select Coordinate System...



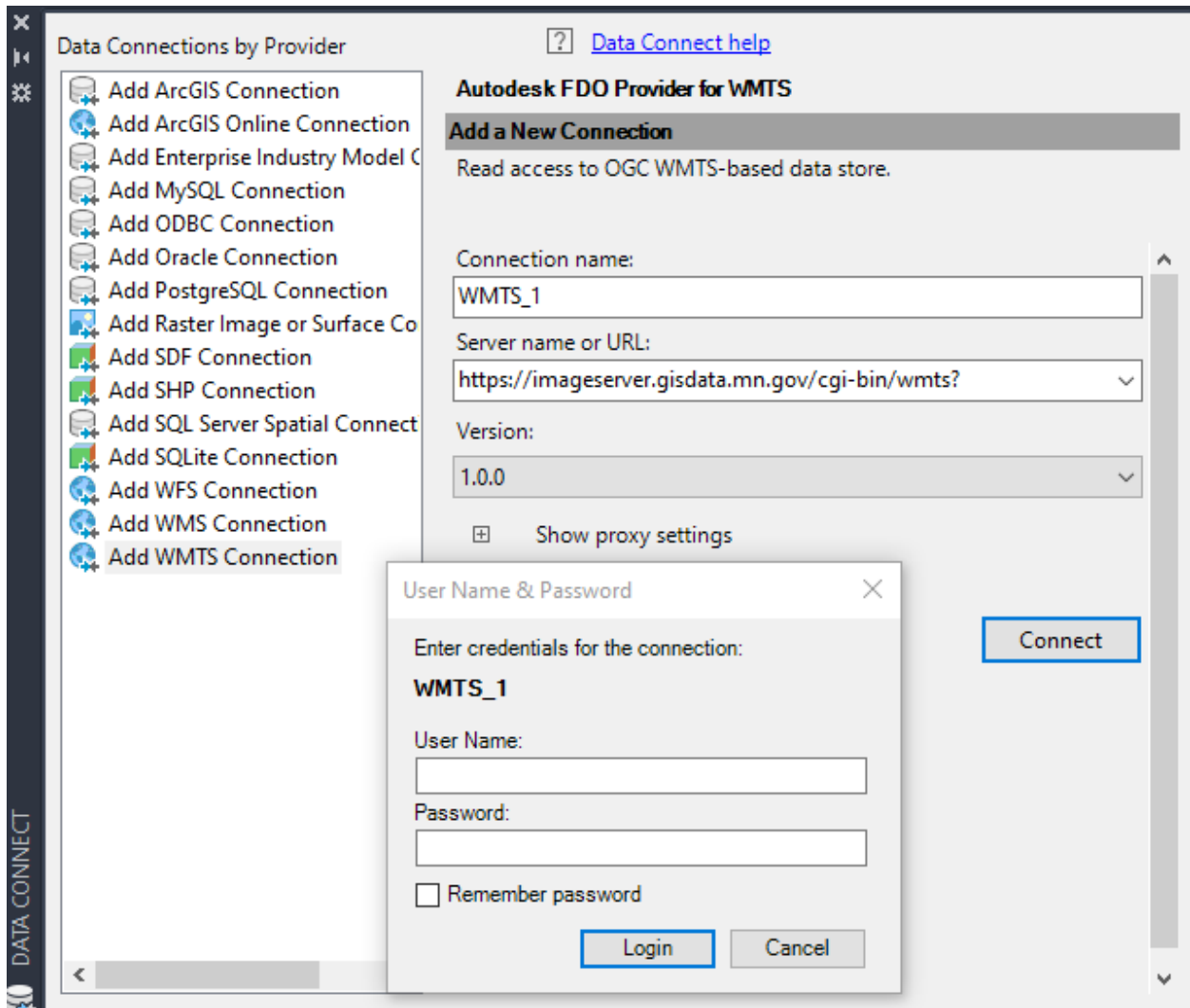
Assign a coordinate system to your map. If you need to, you can search for a coordinate system by opening the Select Coordinate System dialog box.



Connect to MnGeo's Geospatial Image Service

You may connect to MnGeo's Geospatial Image Service by using a Web Map Service (WMS) or a Web Map Tile Service (WMTS). The WMTS service is much faster especially when working in a small area.

On the Task Pane, click on the Data icon which will open the Data Connections by Provider dialog box. In the dialog box, click on Add WMTS Connection. You may optionally add a Connection name. The Server name or URL is <https://imageserver.gisdata.mn.gov/cgi-bin/wmts?> (include the question mark in the server name). Press the Connect button and do not enter a user name or password in the credential box.



Select the air photos that you would like to add to the map

Select each air photo layer that you would like to add to your map. Next click Add to Map.

Data Connections by Provider

- Add ArcGIS Connection
- Add ArcGIS Online Connection
- Add Enterprise Industry Model Connection
- Add MySQL Connection
- Add ODBC Connection
- Add Oracle Connection
- Add PostgreSQL Connection
- Add Raster Image or Surface Connection
- Add SDF Connection
- Add SHP Connection
- Add SQL Server Spatial Connection
- Add SQLite Connection
- Add WFS Connection
- Add WMS Connection
- WMS_1
- Add WMTS Connection

WMS
WMS_1 (https://imageserver.gisdata.mn.gov/cgi-bin/wms?version=1.3.0)

Add Data to Map

Available sources in this connection. Select items to add to the map as layers.

Schema	Image Format	Server CS Code	Layer CS Co...	Style
<input type="checkbox"/> 1991 bw U...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2002-04 La...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2003 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2006 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2008 cir FSA	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2008 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2009 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2010 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2013 cir FSA	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2013 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2015 cir FSA	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2015 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2017 cir FSA	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2017 color...	jpeg	EPSG:26915	UTM83-15	<Default>
<input type="checkbox"/> 2019 cir FSA	jpeg	EPSG:26915	UTM83-15	<Default>
<input checked="" type="checkbox"/> 2019 color...	jpeg	EPSG:26915	UTM83-15	<Default>

Combine into one layer:

Combined Layer Info

Image Format	Server CS Code	Background

Cache WMS data Add to Map

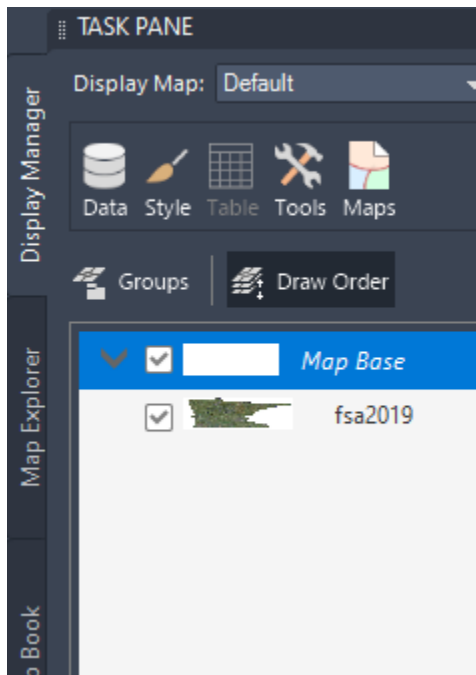
Map Coordinate System
LyonMN-F
Minnesota DOT: Lyon County, US Foot
Foot

Disconnect from Feature Source

To reconfigure this connection, disconnect, and then edit the information. Disconnect

Make sure the air photos appear under your CAD layers

The air photos might draw on top of your CAD file. You can move the air photos under your CAD file by opening the Display Manager within the Task Pane. Then select Draw Order and drag the air photos layer so that it is under your CAD layers.



Result

The air photos should now display under your CAD file.



Using older versions of AutoCAD

Older versions of AutoCAD only support WMS connections. The process of adding WMS connections is similar to adding a WMTS connection. On the Add Data connection, select Add WMS Connection. The Service Name or URL is <https://imageserver.gisdata.mn.gov/cgi-bin/wms?> (include the question mark in the server name). Once again do not add a username or password.

