Knowledge Base Topic:

# Importing Microstation Data to Civil 3D

Software: Civil 3D All Versions

*This topic is confined to importing simple Microstation 3D data into Civil 3D as AutoCAD objects. Once imported the data functions much like any other AutoCAD data. If you are trying to import Civil 3D objects like alignments, DTMs, profiles, and other intelligent objects, you should look into the option of importing via LandXML or recreating the objects.*

*It should also be noted that much intelligence will be lost when transferring data between Microstation and Civil 3D. Essentially after importing the data to Civil 3D you will only be able to use the basic information to filter through your data: layers and graphics. It is highly recommended that transferring data between the two CAD systems be a last resort tool to transfer intelligent objects.*

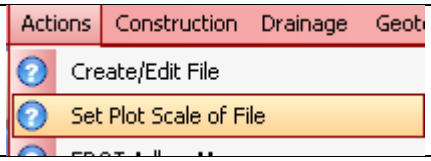
## Setting up the Microstation DGN File

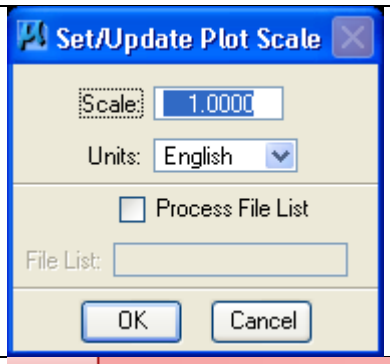
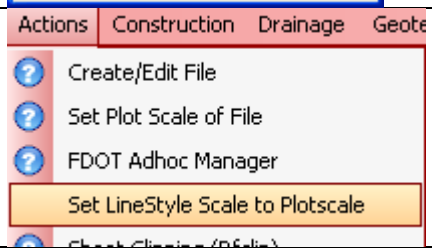
Before bringing in the DGN file into Civil 3D the DGN file must be prepared. If not some of the issues you may run into are:

1. Incorrect Line type scales applied to some or all plines.
2. Objects don't come in with their elevations.

The first task is to set up the DGN file so that it is in 3D. This may require you to recreate the DGN so that it is using a 3D seed file instead of a 2D one. This process is necessary only if you want to use the elevations of any of the objects that are being imported.

The second task is to set up the scale so that the DGN is seen with real world coordinates. The idea is to set the scale to be 1:1 and then apply that scale to all the lines that are on the screen. The following procedure is based upon Florda DOTs implementation of Microstation/Geopak and requires that you have CADPilot running with Microstation:

| | | |
|---|---|---|
| 1. | Access the Plotscale of the DGN file. |  |

| | | |
|---|---|---|
| 2. | Set the scale for the DGN file to be 1. |  |
| 3. | Set the LineStyle Scale to the Plotscale. |  |
| 4. | Apply the LineStyle scale to the custom linestyles in the DGN file. | **See Figure 1 below.** |

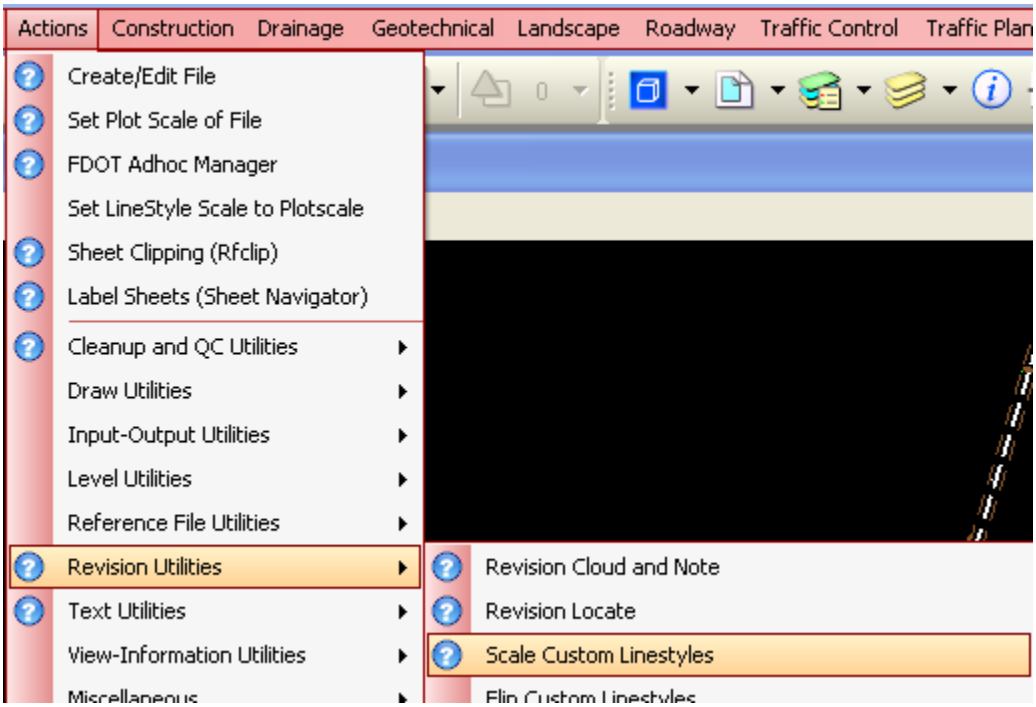



**Figure 1**

## Importing the DGN into Civil 3D

It is important to note that most intelligence will be lost if you intend to import any Geopak data using this method. Some of the data you may lose are:

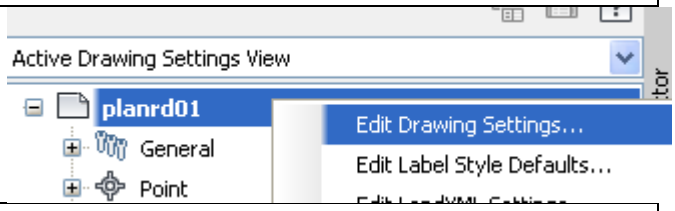
- Ad-Hocs
- Station values, station equations

- Automated cell labels
- Feature codes for points and survey chains.
- Superelevation information.
- And any other intelligence that is not supported by simple ***AutoCAD*** objects.

The data can still be used in Civil 3D tasks such as:

- Targets for corridor modeling (edge of pavement, right of way limits, etc)
- Conversion to Pipe Networks.
- Conversion to alignments.
- Projection of data into profile and cross section views. (i.e., underground utilities, back of sidewalk, etc).

To import the DGN into Civil 3D please follow the steps below:

| | | |
|---|---|---|
| 1. | Create a drawing from FDOT templates using Create File | |
| 2. | Bring up the Settings dialog. Settings toolspace > right click on the DWG name > Edit Drawing Settings. |  |
| 3. | Set the scale and the coordinate system to the correct project values. | See Figure 2 below. |

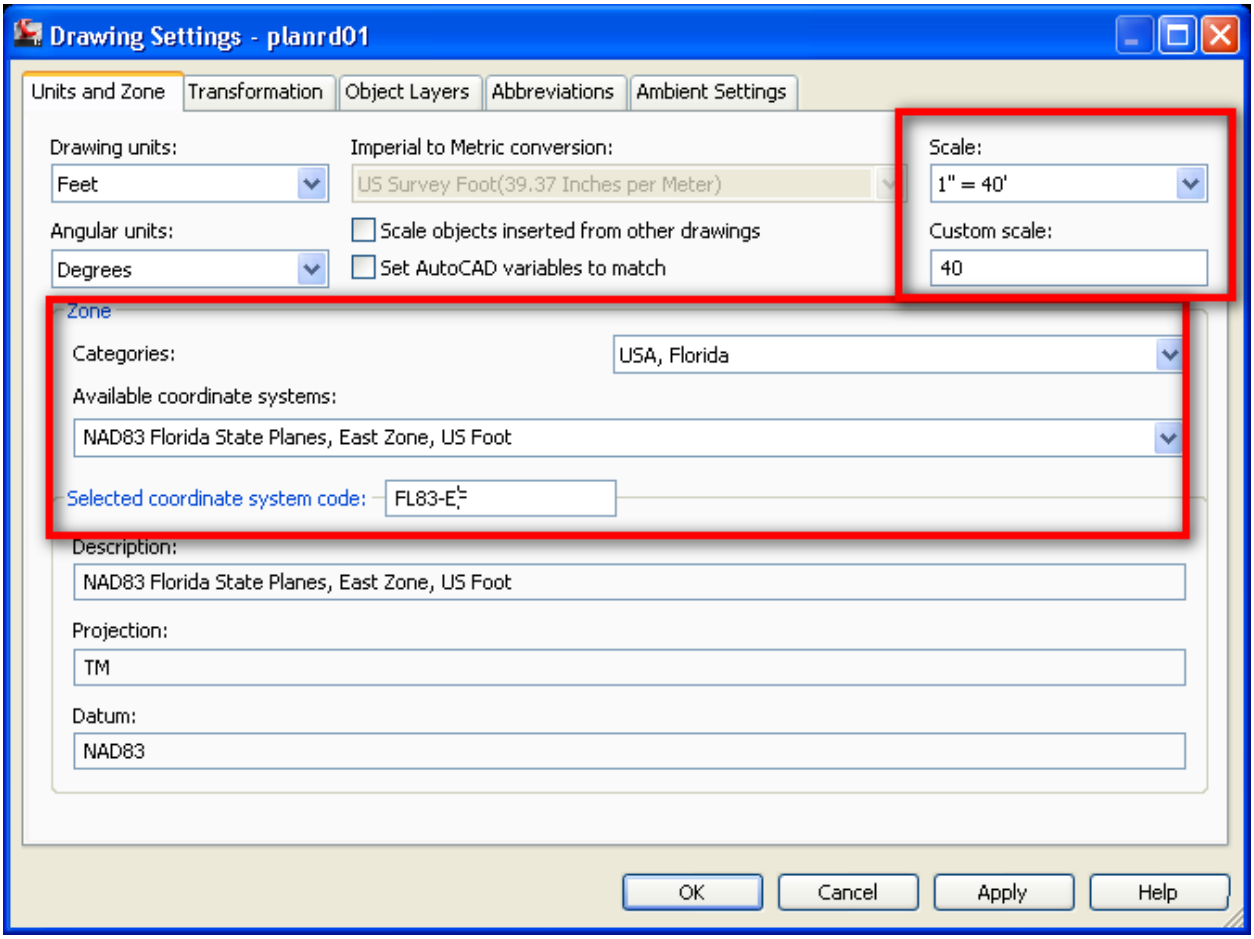
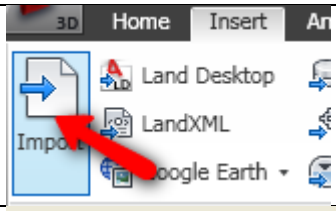
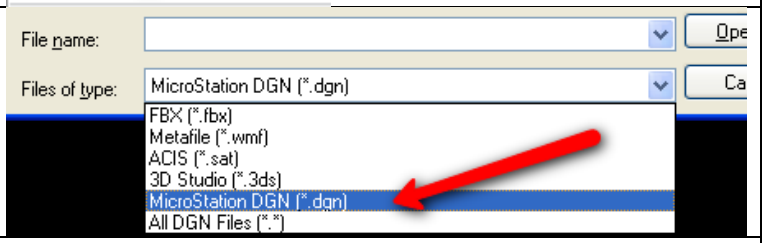



**Figure 2**

| | | |
|---|---|---|
| 4. | Display the Import File dialog. The command is found under the Insert tab > Import . |  |
| 5. | Make sure the type of file chosen is DGN. Select the DGN file and Open it. |  |
| 6. | In the Import DGN Settings dialog that appears ensure that the Mapping Setup chosen is FDOT. This will ensure that the linestyles, levels and line weights are imported correctly.<br>If there are external | See Figure 3 below. |

| | | |
|---|---|---|
| | references please convert them to DWG xrefs. | |

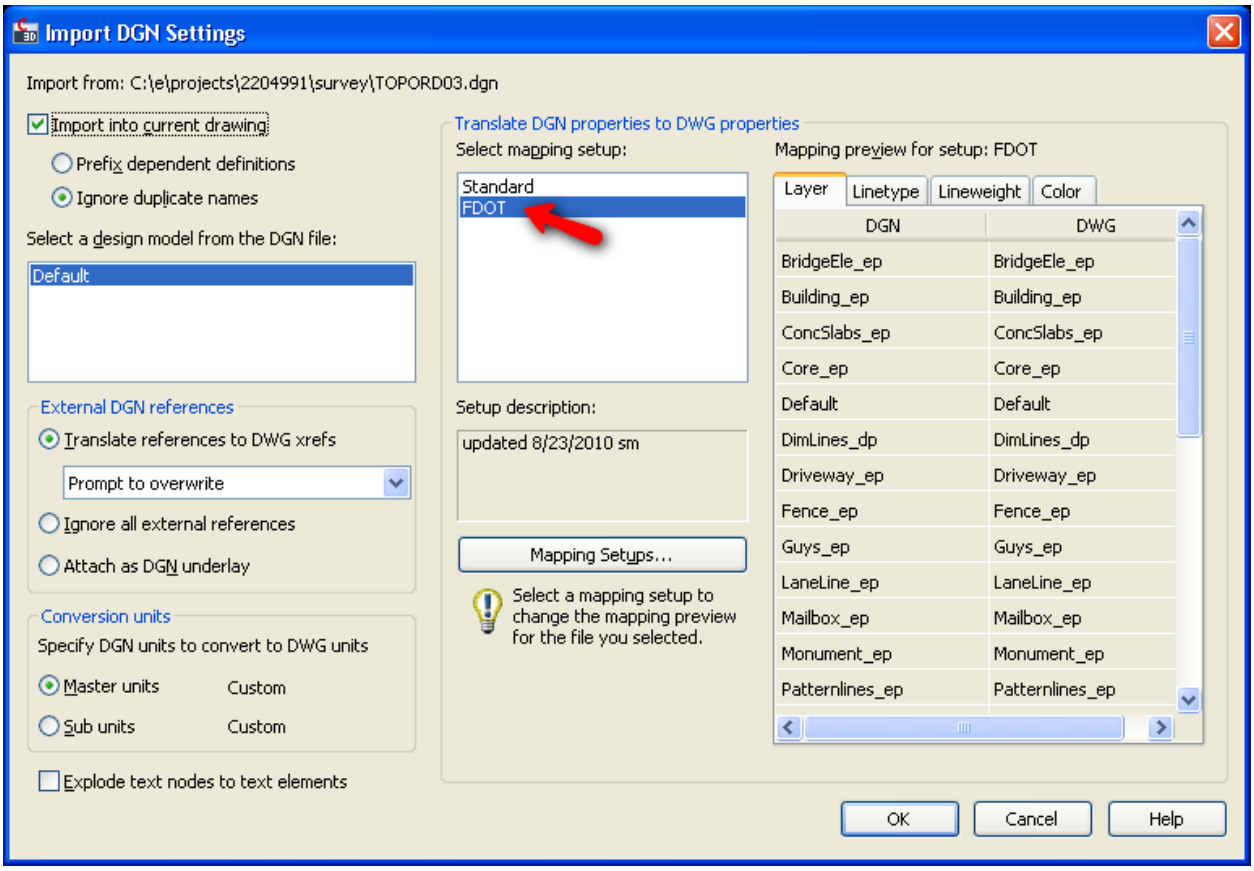
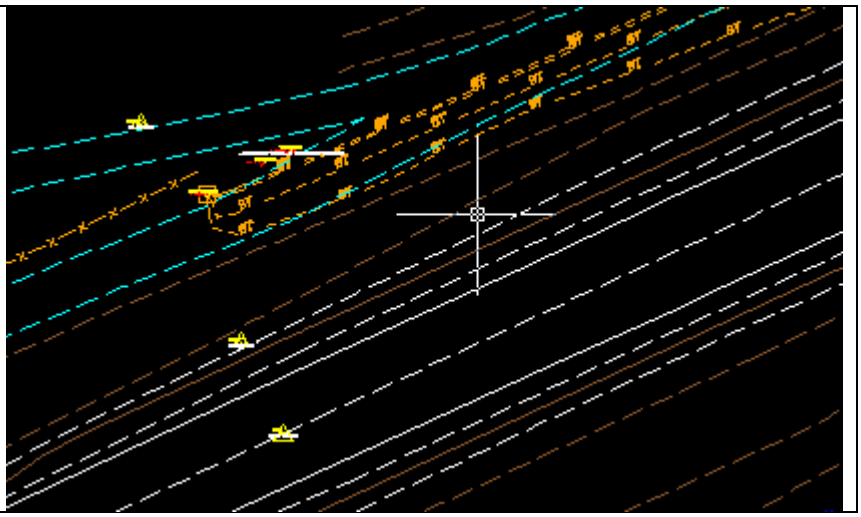
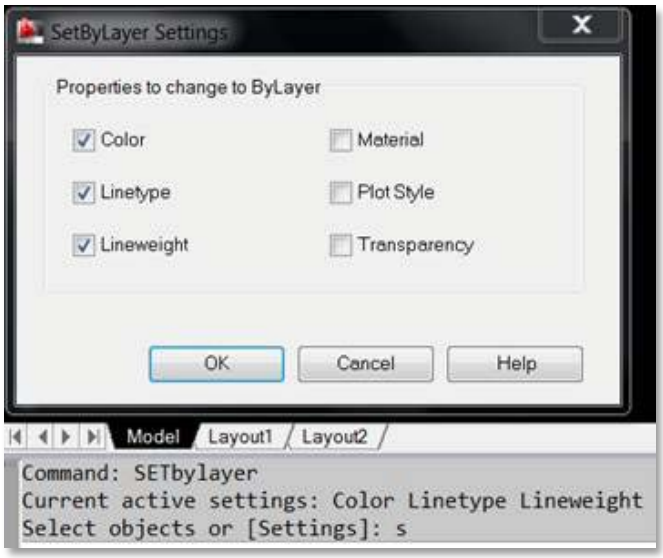



**Figure 3**

| | | |
|---|---|---|
| 7. | Pressing OK will import the DGN file into the DWG. |  |

1. USE A FDOT Template - Check to make sure the drawing you are working was created with CreateFiles or has been sourced from a State Kit drawing template. If you do not have standard layers, they need to be imported from a standard FDOT template with Design Center (Command: **ADCENTER**).

2. Run the command: **SETBYLAYER**




3. Select all objects in the drawing, enter at command: **ALL**

4. Next reload the FDOT Linetypes into your drawing. Type Linetype at command. Click select Load button. In next window, Click select File and navigate to:
**C:\FDOT201x.C3D\Support\linetype\FDOT.lin** Click Open.
In the Load window, shift-select highlight all the listed available linetypes.
Select option "**Reload all selected lintypes**". Then OK in next window to exit/end.