

MoDOT Conversion Utility-CAD Conversion Tool



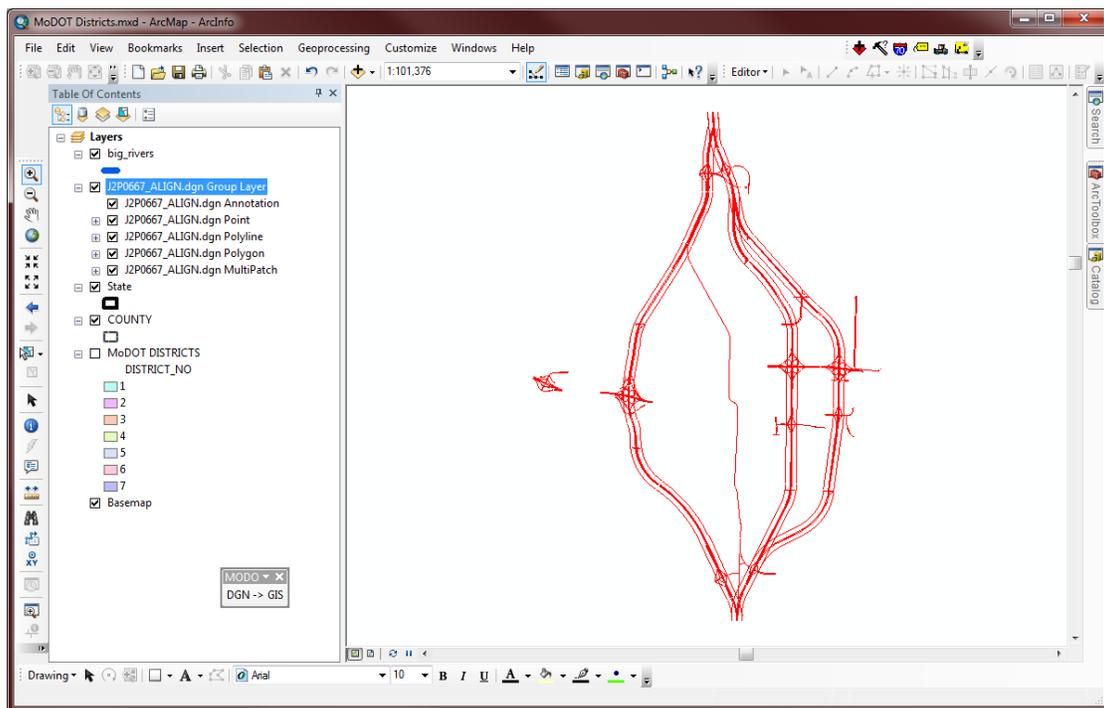
MoDOT utilizes a “modified” state plane coordinate system when laying out its design projects in Microstation. This allows for a higher degree of accuracy over the length of a project, but it also creates some unique problems when using Microstation linework in other applications such as ArcMap. Because of this situation, a custom tool was developed called the MoDOT Conversion Utility.

A modified state plane coordinate system applies a grid-to-ground factor to all the points in a surveyed project. This factor takes into consideration the Easting position of the project within its respective state plane zone, as well as an adjustment for the project’s average elevation.

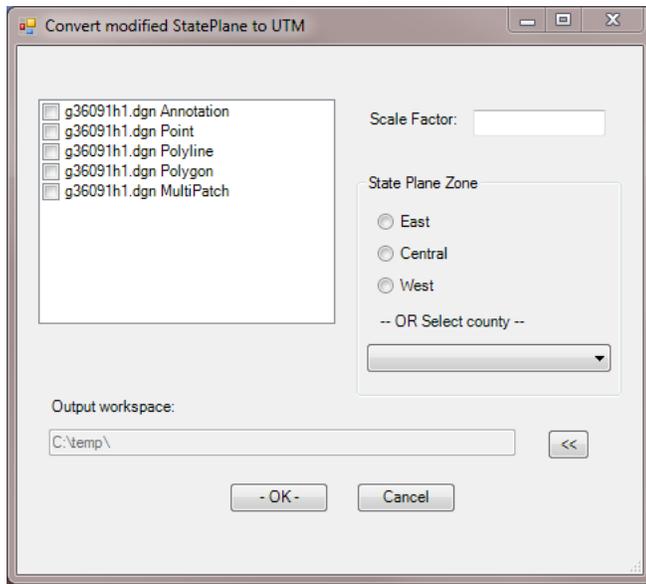
Adding a CAD element to a project in ArcMap is not difficult. However, going through the steps to re-project from MoDOT’s modified state plane system to UTM can be difficult. This is where the conversion utility comes in.

How it works:

1. DGN elements are added to the map.



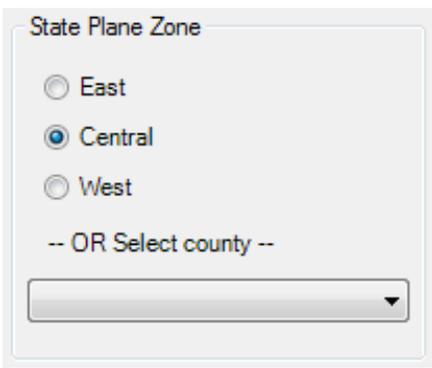
- The conversion utility is launched. The utility automatically recognizes all DGN layers in a map and lists them.
- The user chooses which DGN layers to convert.



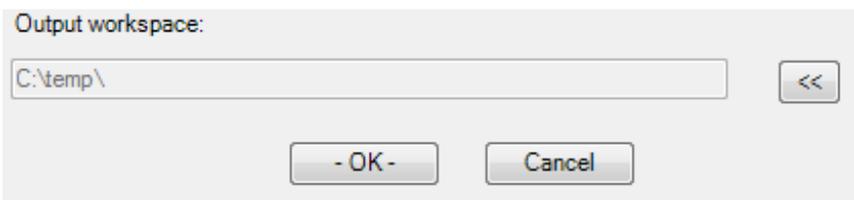
- The user inputs the “Grid to Ground” factor used for the design project.



- The appropriate state plane zone or county is assigned.



- A folder is specified for the resulting output.



7. At this point, the conversion is run. The utility reverses the effects of the grid to ground factor then re-projects the data to UTM from state plane. Finally, a shapefile is generated from the DGN line work, saved to the specified folder, and added to the table of contents in the map.

This utility is available from CADD Support office if you have to bring modified DGN line work into ArcMap on a regular basis.

Google Earth Data KML/KMZ

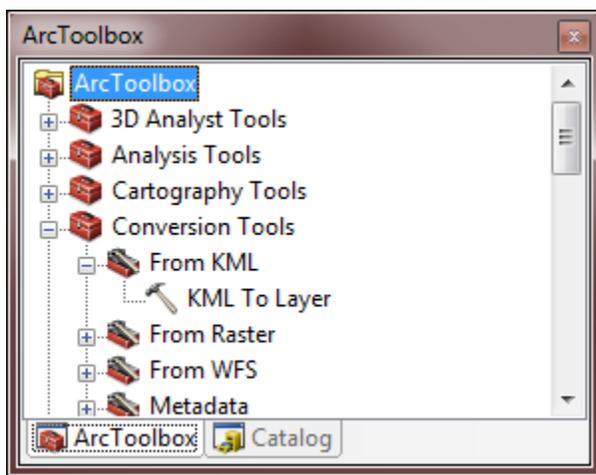
Another way you can add CAD data into ArcMap, is to acquire a KML/KMZ file that has been created via Microstation.



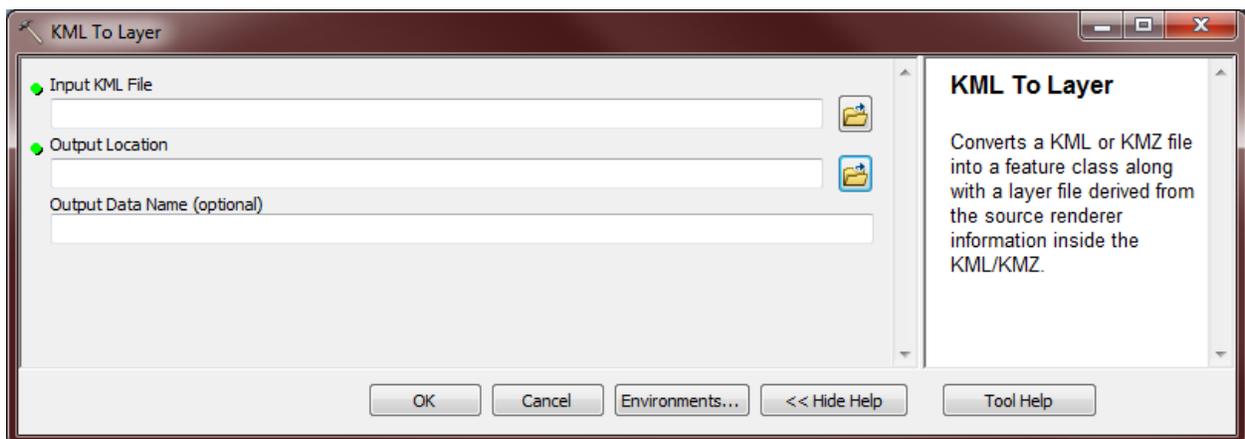
As mentioned before, KML is a file format that is specific to Google Earth. (KMZ is the compressed version of KML files...) Have your CAD person export a KML file from Microstation and send you the file.

To import a KML file into ArcMap, follow these steps:

Open ArcToolbox and navigate to Conversion Tools>From KML>KML to Layer.



The KML to Layer dialog box will open:



Input KML File: Navigate to the Google Earth file you wish to open

Output Location: Navigate to a folder name that you want to create the geodatabase in.

Output Data Name: You have the option to change the name of the layer.

The KML To Layer tool display will scroll at the bottom of your screen while the tool is working.



Once the tool is finished, your data will be added to ArcMap. The great thing about adding CAD data from a KML file format is that each level can be turned on and off. Attributes are displayed as well.

