IOWADOT

Office of Design

Creating a KMZ File from MicroStation Line Work

MicroStation has a built-in tool to create a Google KMZ file that is very easy to use. Anything that is visualized in the MicroStation file at the time of creating the KMZ file will be contained within. All MicroStation levels that contain data that is intended to be within the KMZ will need to be turned on.
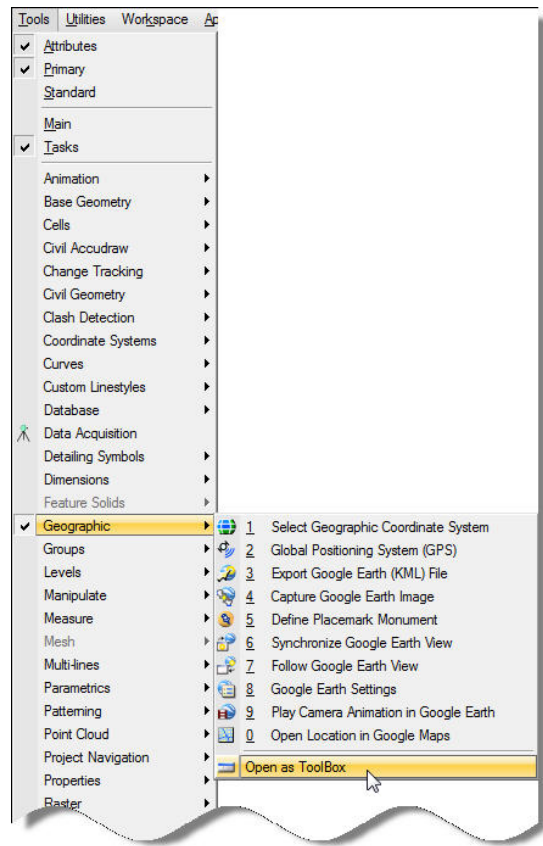
Geographic Toolbox

The MicroStation Geographic tools will need to be used to create a KMZ file from Microstation linework. This is accessed from: **Tools>Geographic>Open as Toolbox.** See figure to the right.

The toolbox below will be opened.

Three tools in the toolbox will be used while creating a KMZ file:

Select Geographic Coordinate System

Google Earth Settings

Export Google Earth (KML) File

### Select Geographic Coordinate System

This tool will be used to either set or view what geographic coordinate system is applied to the MicroStation file. Clicking on this tool will bring up the Toolbox on the right. The image on the right indicates that no Coordinate system is currently applied to the MicroStation drawing. Refer to Section 21C-71 for applying a coordinate system to the MicroStation model.
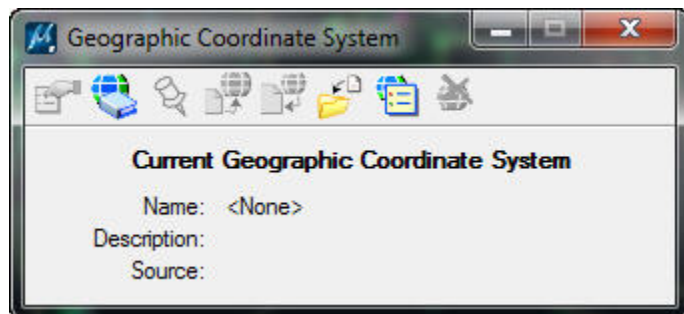
Google Earth Settings

This tool brings up the dialogue on the right, which contains settings for creating the KMZ file from a MicroStation drawing. When creating a KMZ file from a 2D drawing, the settings should be set as shown on the right. **Convert Custom Line Styles** may not be checked by default.

Convert Undisplayed Levels will make all references (displayed and undisplayed) and all levels of those references available in the KMZ file. This may produce an undesirably large KMZ file if there are levels/references contained within the MicroStation file that are not desired to be in the KMZ file. The preference is display in the KMZ file only the levels/references intended to be displayed in the MicroStation file.
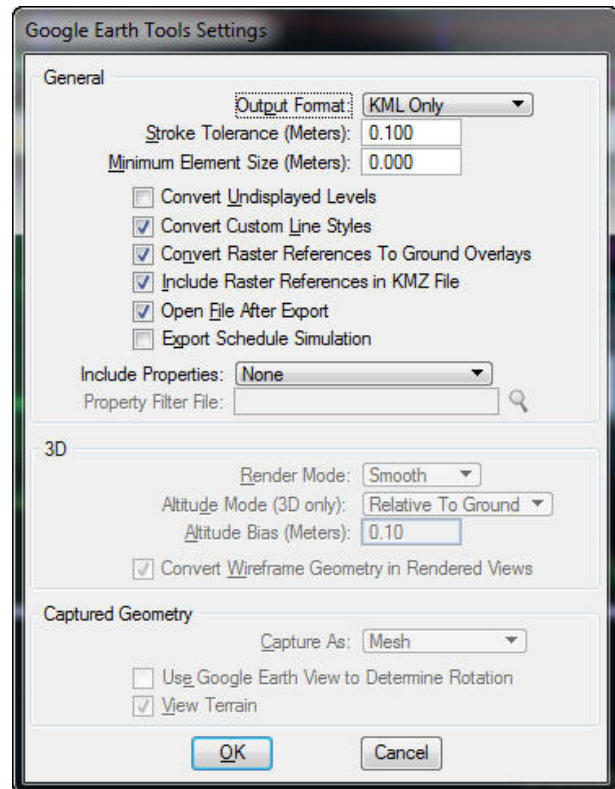
Export Google Earth (KML) File

This is the tool that will create a Google Earth KMZ file from the current model that is displayed in MicroStation.

Creating a KMZ File

When the proper geographic projection is attached to the MicroStation file and the view settings have all the desired elements displayed, *Click* the **Export Google Earth (KML) File** button in the Geographic Toolbox. This will prompt you to select a location to save the file and indicate the new file's name. The default name will be the file name of the current MicroStation drawing.

Note: Even though the **Export Google Earth (KML) File** tool has KML in the name, it creates a KMZ file, which is a compressed version of a Google KML file.
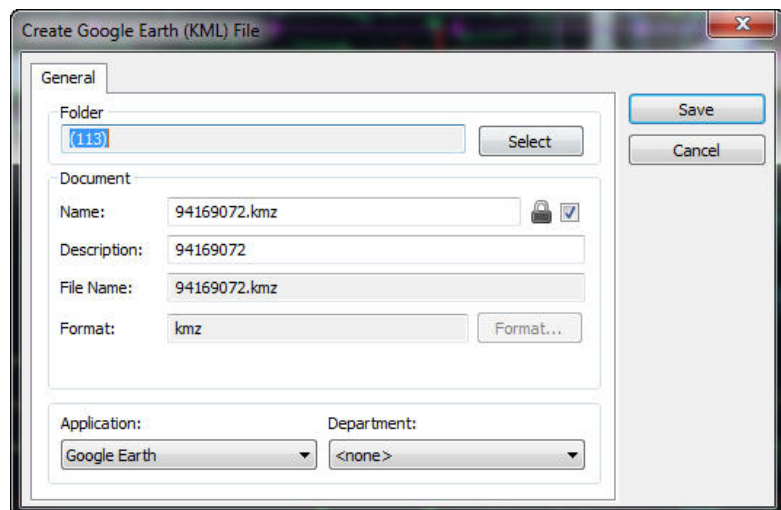
All references within the KMZ file will have their names exactly as they were as DGN files. Logical name or model name is not transferred to the final KMZ file. It may need to be manually manipulated in the KMZ file to better clarify what each reference in the KMZ file is, especially if there are multiple references of the same file to different models in that file.

Content of KMZ Files

The KMZ files that are included with the support eFiles (at contracts turn-in) are for information only and are not contract documents; however, they should not contain conflicting information from the plans. Creating KMZ files to be included with the support files should be done only after the plans are completed and ready for contracts turn-in. The content of KMZ files to be included with electronic support files should be overviews of the areas of construction including, but not limited to:

Overview of Final Construction (D, E, & K Sheets)

A KMZ file that portrays the final construction, as shown in the D, E, and K sheets, is useful because all the information portrayed is potentially scattered amongst many sheets in three series of sheets. Showing all of the information in one file with the earth as a background helps portray how all the sheets are connected.

Use the Layout file that created the D, E, or K sheets to create this file.

94169072.kmz

Staging Plan (J Sheets)

A staging plan could be hard to piece together from the multiple J sheets in a plan set because of the scale used on the sheets. A large area that has the staging plan in 20 scale can require several sheets to portray all of the relevant information. The staging plan KMZ should contain each stage of construction in a single layer (reference) and the existing topographical information.

To create a staging KMZ file, create a single MicroStation file that references all of the different stages in a project. This will allow any user to look at each stage individually or all together to see how all the stages interact.

KMZ_STG_Export.kmz

Storm Sewer Layout (M Sheets)

Same view as the plan view M Sheets.

Use the Layout file that created the M sheets to create this file.

StormSewer.kmz

Sidewalk Construction Layout (S Sheets)

Same view as the plan view S Sheets.

Use the Layout file that created the S sheets to create this file.

Sidewalk.kmz

KMZ files do not need to be limited to final deliverables. Valuable information can be shared with customers of the design work along various phases of design. Below are two examples of KMZ files that may be created to share information with the public.

Public Information Scrolls

These are identical to the scrolls that would be produced for public involvement meetings. Do not produce and share a KMZ that has conflicting information from the scroll that is presented at a public meeting. To ensure this does not happen, create the KMZ file immediately after creating the final PDF file of the scroll to ensure they are identical.

Public_Hearing.kmz

Detour Maps

This is a simple map of a proposed detour route that could be loaded into Google Earth. To create in a geographically correct MicroStation file, draw the route of the proposed detour with a thick weight line (weight 10).

Detour_Map.kmz

Chronology of Changes to Design Manual Section:

021C-070   Creating a KMZ file from MicroStation Line Work

7/31/2015	NEW	
	New	

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