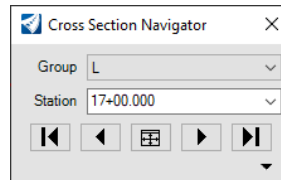
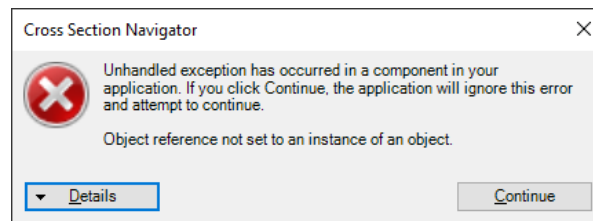


Cross Section Navigator with Analysis and Drawing Tools

In order to use the Cross Section Navigator, you must have already created cross section drawing models in your file. You might typically use this tool with the XSEC_bas file. The Cross Section Navigator allows you to change the Cross Section Group and select a specific station value. The main navigation buttons at the bottom should have a familiar look and function to DVD players and have tool tips when you hover over them.

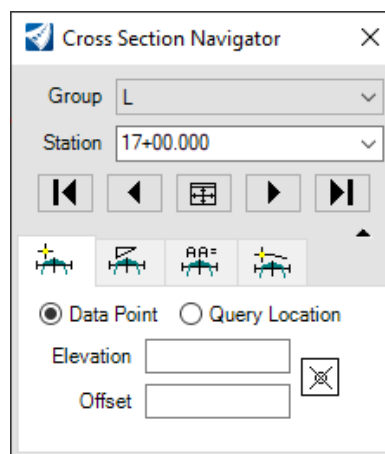


Open the Cross Section Navigator by selecting OpenRoads Modeling>Drawing Production>Review>Cross Section Navigator and then left-click on the alignment in the plan view. When prompted, open or click in another view window and the Navigator will display the first cross section drawing model (gray background) in the Multi-Model Views. Stay in the Multi-Model Views while working with the Cross Section Navigator to avoid unhandled exceptions.



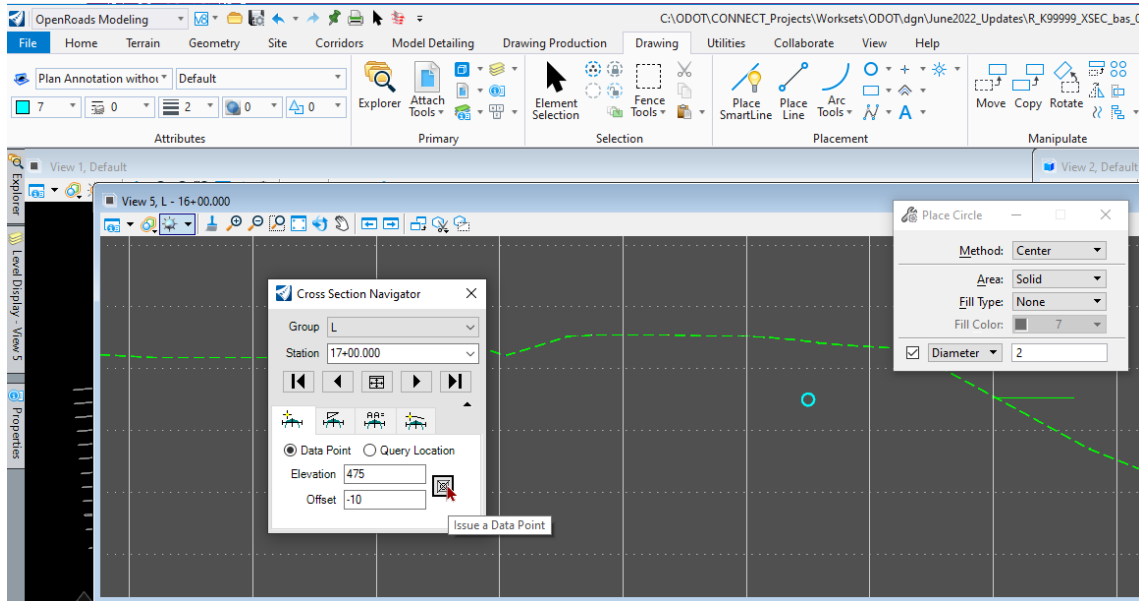
If you open a specific model and then attempt to use the Cross Section Navigator, you will likely receive a dialog like the one shown above. Click [Continue], then use the View Group Manager to navigate back to the Multi-Model Views before using the Cross Section Navigator again.

The analysis and drawing tools can be shown by clicking the “Show Tools” arrow in the bottom right corner of the Cross Section Navigator.

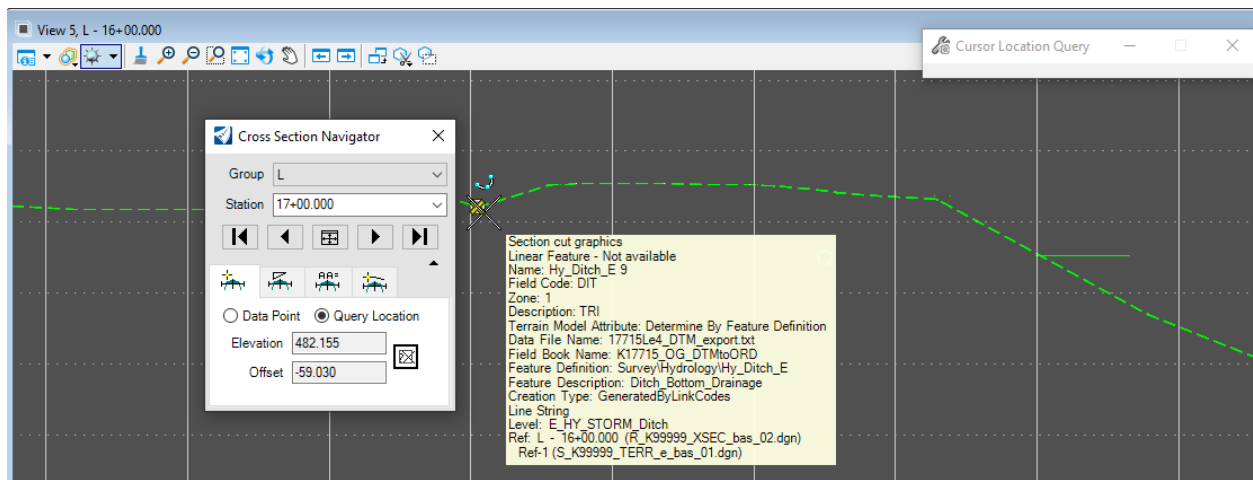


Data Point / Query Location

To place an element (line, shape, cell) at a specific elevation and offset in the displayed cross section, use the “Data Point” option, key in the values, select the command from the Drawing tab, and when prompted to “Identify” a point, click on the [Issue a Data Point] button as shown below.



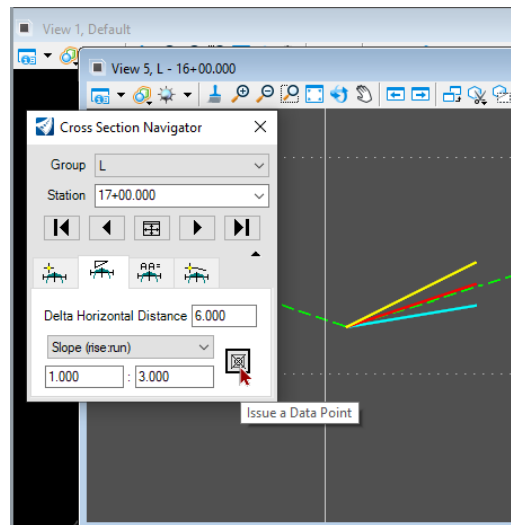
Choosing the “Query Location” option and then pressing the [Query Cursor Location in Cross Section] button will display the elevation and offset at the cursor location - dynamically. In the image below, AccuSnap helps provide the elevation and offset of the left side ditch.



Delta Horizontal Distance

Use “Delta Horizontal Distance” and the [Issue a Data Point] button to place the 2nd point of any line segment at a user specified "delta horizontal distance" and slope. Slope options include run:rise, rise:run, %, and unit/unit (which is decimal).

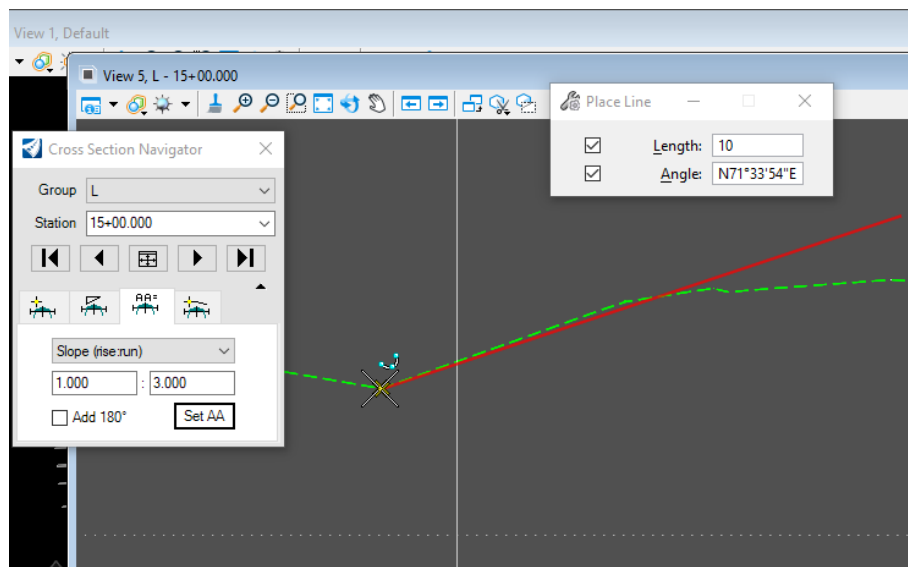
In the image below, the first point of all lines was the ditch bottom. The 2nd points of the cyan and red lines were placed 6 feet to the right on a 1:6 and then a 1:3 Slope (rise:run). The 2nd point of the yellow line was placed 6 feet to the right on a decimal Slope (unit/unit) of 0.5.



Cross Section Active Angle

The Cross Section Active Angle tool allows the user to set a slope type, such as rise:run and enter values. The ratio can be used to set the active angle instead of calculating the angle in DD MM SS format.

An example of how this might be used is for a quick visual check that the existing slopes are flatter than 1:3. In the image below, the active color is set to red, the Place Line command has been chosen with a line length locked to 10 feet. When the Angle is locked, the active angle is displayed. To change the active angle to 1:3 – Slope (rise:run) is selected in the Cross Section Navigator and the values are entered as shown below. When the [Set AA] button is pressed, the active angle is set.



Place XS Line

The final tab on the Cross Section Navigator begins a command named Place XS Line. It is the equivalent of Place SmartLine, but without “Join Elements” toggled on. Do not try to use other commands. Place XS Line draws a primary class line on the Default level with color, line style, and weight all set to 0 – it does not use the active attributes. Follow the prompts in the Status bar. To restart the command, select a different tab on the Cross Section Navigator and then select the Place XS Line tab again.

Set the slope option and values on the Cross Section Navigator. “Delta Distance” is actually the Delta Horizontal Distance, it is not the line length. The command prompts you for two data points: start location and end location. Even with a “Delta Distance” locked into a value – the end location left-click is required to place the line. This allows the user to select a different quadrant, by moving the mouse cursor down or to the left.

