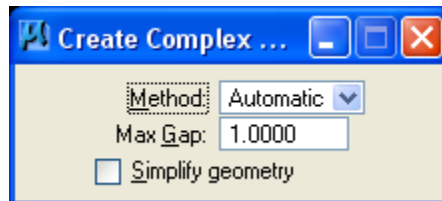
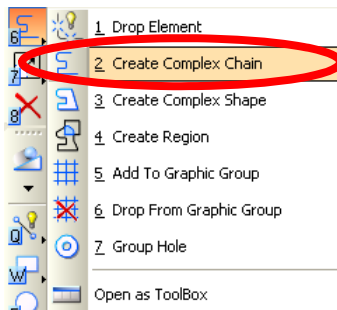


Placing Mile Markers and Delineators in Microstation

Traffic and Safety Manual
 Chapter 20
 Instructions
 Originally Issued: 11-05-15

Create a Complex Chain

Create a line along which the Mile Markers and Delineators will be placed. Often this will be the centerline of the roadway. This line needs to be a single line. If not, use the Create Complex Chain command to join the different segments together. For method, select Automatic.

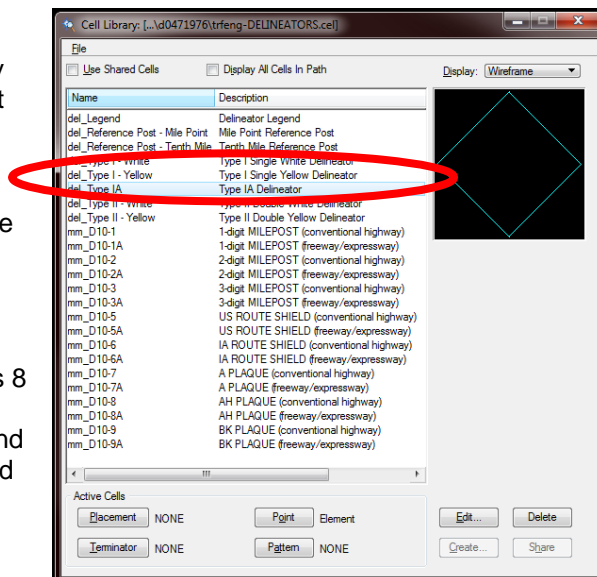


Avoid using separate lines for each side of the roadway. This may work on straight sections of road, but will not give accurate locations when going around a curve.

Note: COGO elements do not always perform as expected when using this method. Best current practice is to use common lines, curves, and complex chains in lieu of COGO elements. You can use the drop element tool to break COGO elements up if necessary.

Place Delineator Cell

It is then necessary to place a mile marker or delineator at the correct starting location. It is usually easier to place the 1/20th delineators, and change out every 20th one to the mile marker symbol.



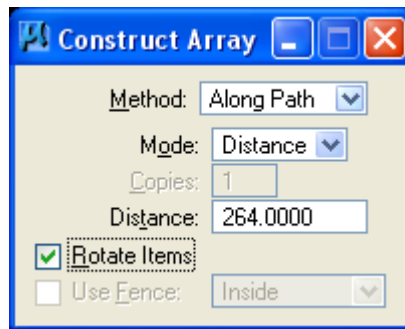
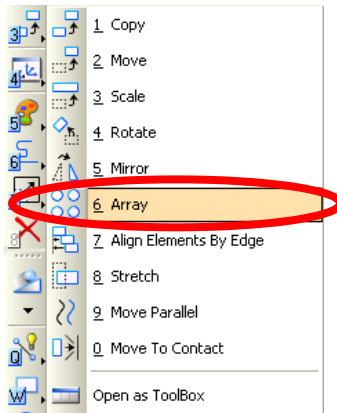
In the [trfeng-DELINEATORS.cel](#) cell library, select the del-Type 1A cell (or other cell as appropriate.)

Offset the delineator to the side or sides of roadway where the delineators will be placed. Typical offset is 8 ft. from the edge of roadway. Distance from the centerline will vary depending on the median width and the cross section of the roadway. Refer to [SI-171](#) and [SI-172](#) for additional details.

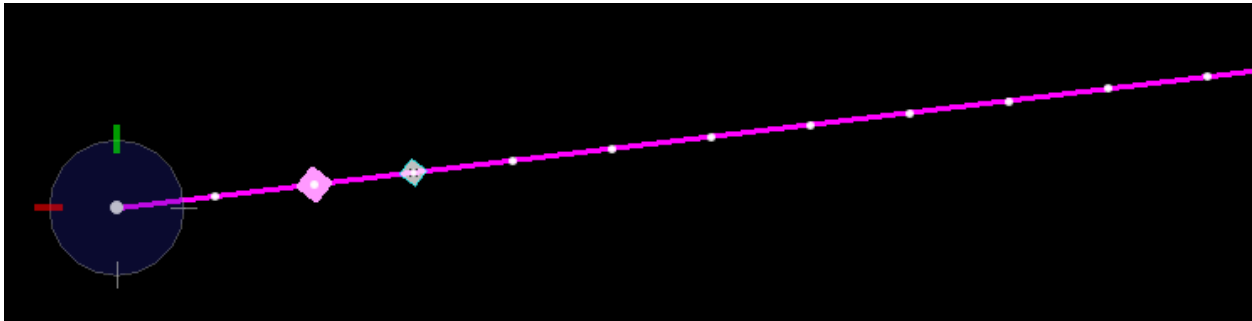
Array Along Path

Select the “Array” tool. In the Construct Array Dialog, the following settings are recommended:

- Method: Along Path
- Mode: Distance
- Distance: 264 ft (1/20th Mile) for Milepost delineators or other distance as appropriate
- Rotate Items: Selected (this will rotate the cells correctly as they go around curves)

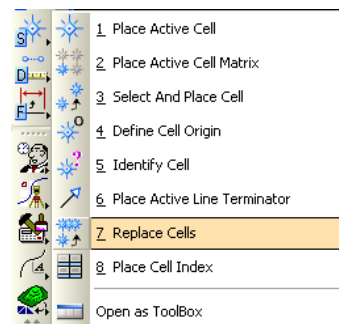


To use the Array tool with the “Along Path” method, first select the cell(s) you will to array. Next, select the starting point along the line which they are to be placed. Next, trace along the path, noting that locations a cell will be placed will be marked by a small dot (these are displayed only temporarily.) Lastly, select the point where delineation is to stop.



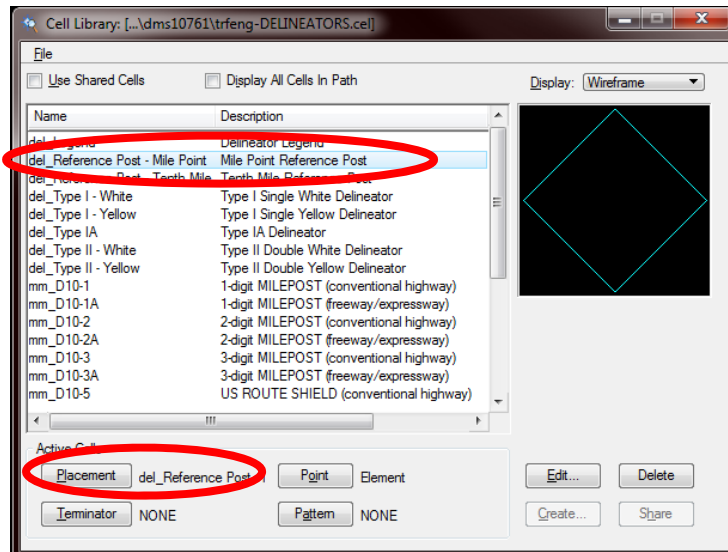
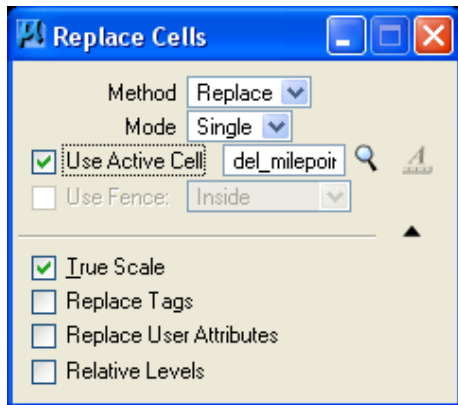
Replace Cells

After all delineators are in place, every 20th delineator should be replaced with the appropriate mile marker symbol. The Replace Cells tool may be used to replace cells while maintaining size, scale, and rotation.



In the “Replace Cells” Dialog, the following settings are recommended:

- Method: Replace
- Mode: Single (this allows the replacement of only selected cells)
- Use Active Cell: Selected. Use the Magnifying glass to identify the appropriate Milepost cell in the cell library. Click the placement button to populate the “Replace Cells” dialog
- True Scale: Checked
- Replace Tags: Unchecked
- Replace User Attributes: Unchecked
- Relative Levels: Unchecked



Quantities

Quantities for mileposts and delineators are entered into [Tabulation 190-25](#), Reference Location Signs and Delineators.