InRoads – Cross Section Planimetrics

Evaluation > Cross Section > Cross Sections - Create Cross Section command

Overview

Sometimes it's useful to have stationing for two parallel alignments and their corresponding DTM surfaces. This Tech Note describes the process for viewing cross section lines that are skewed to one alignment and orthogonal to another. These alignments can be viewed within a single cross section set.

Workflow

View the Alignments

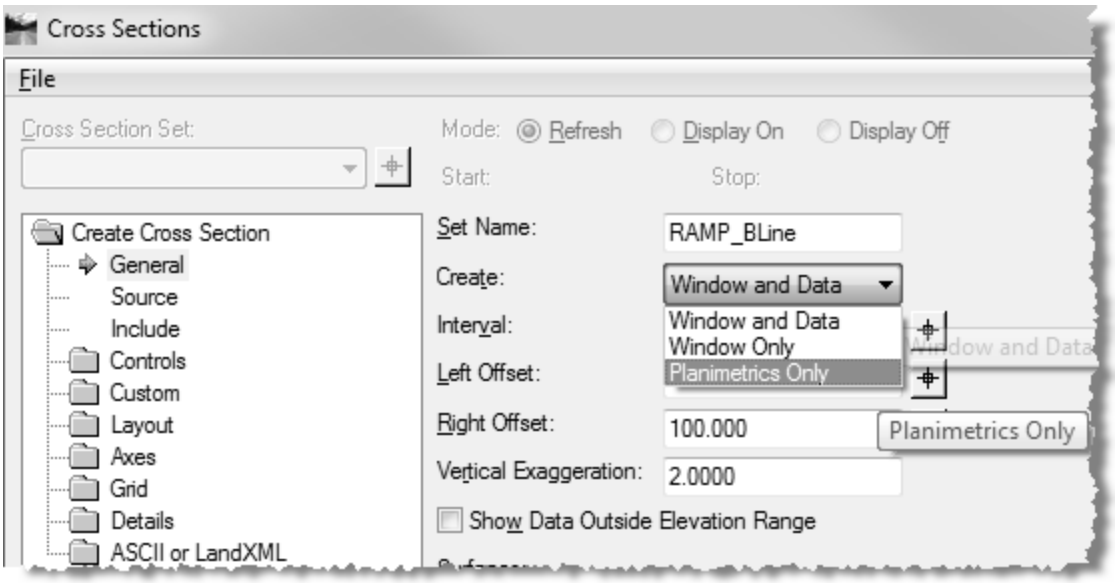
View each alignment graphically in MicroStation.

1. Right-click on each alignment, and select **View**.
2. Use the MicroStation **Element Selection** tool to create a selection set for both alignments.

Create Cross Sections

1. Open the *Evaluation* > *Cross Section* > *Cross Sections* command.
2. On the *General* category, use the dropdown menu for the *Create* field and select **Planimetrics Only**.

   NOTE: this menu allows you to create cross sections for the Window and Data, Window Only and Planimetrics Only.



3. Set the left and right offsets wide enough to cover both alignments.
4. From the *Source* tab, select the alignment that the cross section stations will be relative to.

5. From the *Controls* > *Plan Display* folder, toggle on the **Planimetric** and **Planimetric Station** symbology.
6. In the *Custom* > *General* folder, set the *Type* to **Linestring**.

   The *Graphics* button should now be enabled.
7. Apply the **Graphics** button.

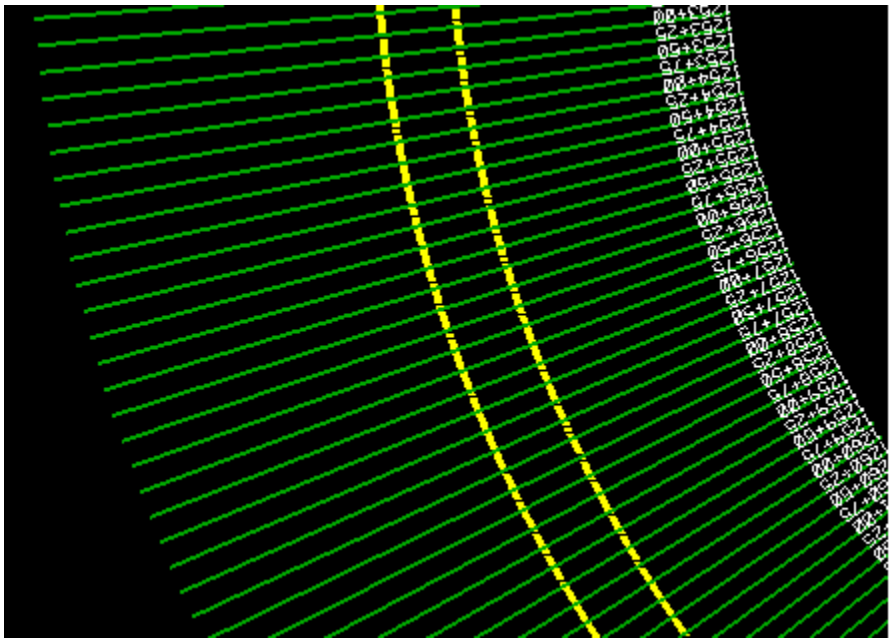
   You may receive these errors:

   - Invalid element type
   - Cross section lines cannot have multiple intersections with the horizontal alignment
   - Unable to process elements

   Text is one type of an invalid element. Bring in only the line strings and no annotation in the selection set.
8. Click **Apply**.

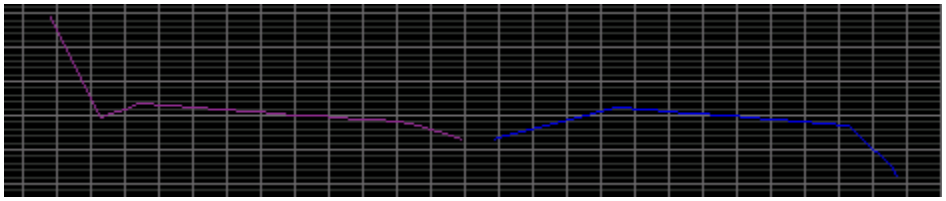
   This will not create a cross section grid with data – rather it will apply the stationing along the alignments from the *Custom* > *General* tab.

   This process generates cross section lines on the alignment:



9. Create a cross section grid with the data by selecting **Window and Data** in the *Create* field on the *General* tab.
10. Click **Apply** to generate the cross sections.

Here is an example of a typical cross section for multiple alignments:



For questions or comments on this tech note, contact your regional CAE Support Coordinator or the WSDOT CAE Help Desk at (360) 709-**8013**.