

InRoads – Horizontal Annotation Preferences

Overview

CAE has created a set of InRoads preferences used to annotate the horizontal alignment, stationing and curve information for the various alignments used in PSE plans, RW plans and working drawings. The three commands - **View Horizontal Annotation**, **View Stationing** and **View Curve Set Annotation** - are used to annotate InRoads horizontal alignments; each command has a set of identical preferences used to control the annotation. All preferences except **WSDOT** will force the alignments to display in the style selected regardless of the alignment’s assigned style.

The **WSDOT** preference can be used to display any horizontal alignment with its assigned style if **Point Element** is enabled - the point will be drawn using the Cogo point style and not the **AL_HW_CLinePSECurvePtCircle** style.

Basic Workflow

Open an InRoads geometry file with a horizontal alignment(s). Use the **View Horizontal Annotation**, **View Stationing** and **View Curve Set Annotation** commands to annotate alignment using appropriate preference.

Preference Details

WSDOT – use to annotate any non-stationed alignment with its assigned style.

_Cline PSE – use to annotate PSE Existing centerline alignment in a PSE Base file.

_Cline PSE New – use to annotate PSE New centerline alignment in a PSE Base file.

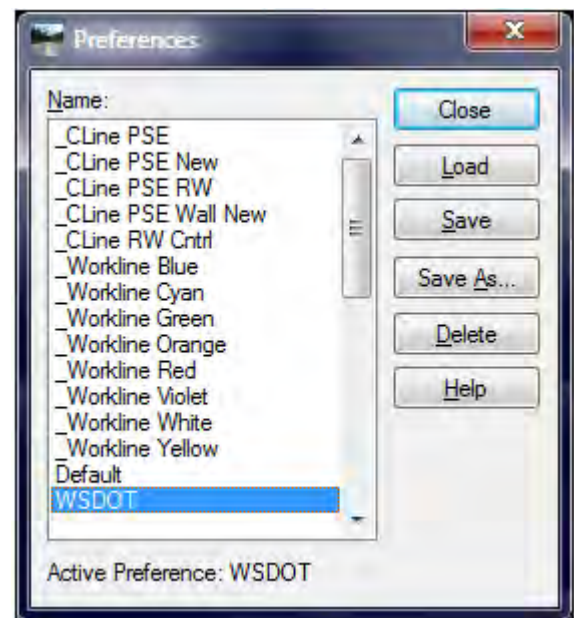
_Cline PSE RW – use to annotate PSE Exist Right of Way centerline alignment in a PSE Base file.

_Cline PSE Wall New – use to annotate PSE Wall New centerline alignment in a PSE Base file.

_Cline RW Cntrl – use to annotate Right of Way centerline alignment in a RW Base file.

_Workline * – use to annotate any work line or centerline with color of preference name not to be used in PSE RW plans unless approved by plans review.

Default – use to annotate any alignment on default level not to be used in PSE or RW plans.



Open Geometry file:

1. Select the *File > Open* command.
2. Set *Files of type:* to **Geometry Projects (*.alg)**.
3. Navigate and select the geometry project file and click **Open**.
4. Close the Open dialog.

Project Options Preference

Before the alignment is annotated an InRoads Project Options preference may need to be loaded.

1. Select the *File > Project Options* command.
2. Select **Preferences**.
3. Select and load the appropriate preference:

Use **_PSE Base** when annotating alignments in a PSE Base DGN file; annotate horizontal alignments with styles of **AL_HW_CLinePSE**, **AL_HW_CLinePSENew** and **AL_RW_CLineRWforPSE**.

Use **_RW Base** when annotating alignments in a RW Base DGN file; annotate horizontal alignments with styles of **AL_RW_CLineRWCntrl**.

Use **WSDOT** when annotating any alignments in a working DGN file.

Note: the default scale for **_PSE Base** is set to 100 and **_RW Base** is set to 200. If you are working in at a different scale, the scale needs to be adjusted under the *Factor* tab.

View Horizontal Annotation Command

The View Horizontal Annotation command draws the path of the alignment, the cardinal points (POB, PC, PT, and POE) and the bearing direction of each tangent.

1. Select the *Geometry > View Geometry > Horizontal Annotation* command.
2. Select **Preferences**.
3. Select and load the appropriate preference for the style of alignment - see [Preference Details](#) on previous page.
4. In the *Horizontal Alignments* area, select the alignment(s) to be annotated.
5. Click **Apply**.

View Stationing Command

The View Stationing command draws the station ticks and the major and submajor stations text along with the cardinal, PI and station equation stations leader and station text.

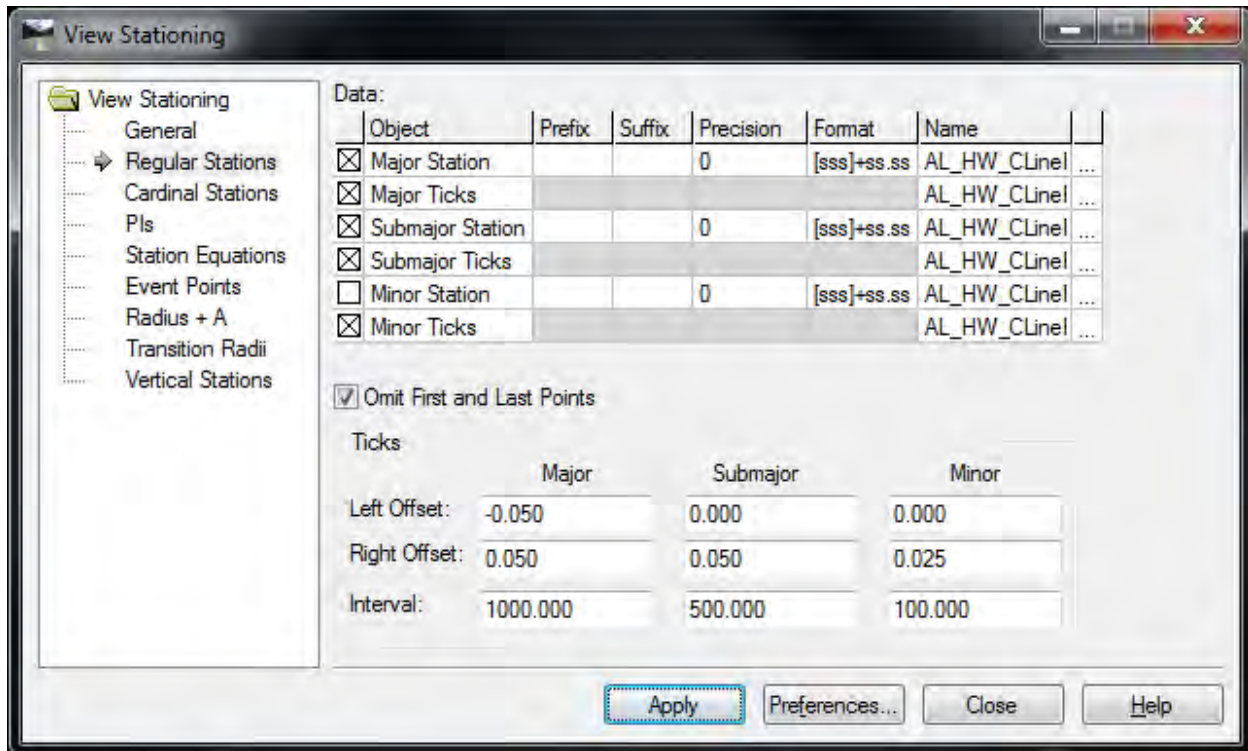
1. Select the *Geometry > View Geometry > Stationing* command.
2. Select **Preferences**.
3. Select and load the appropriate preference for the style of alignment - see [Preference Details](#) on previous page.
4. In the *Horizontal Alignments:* drop list, select the alignment to be annotated.
5. Click **Apply**.

Modifying the direction of the Stations Ticks, Text direction and Leader

Due to alignment directions and plan sheet orientation there may be times the alignment tick marks, leaders and the station may be drawn in the wrong direction. The below sections will show you how to change the major and sub major station tick, and their text.

Modifying Tick Direction

Defining the direction of the Submajor and Minor Stations is controlled by the Regular Stations settings.




1. Select the *Geometry > View Geometry > Stationing* command.
2. Verify the correct preference is loaded.
3. Select **Regular Station** leaf.
4. In the *Ticks* area set the *Left Offset: Submajor* and *Minor* values to 0.000.
5. In the *Ticks* area set the *Right Offset: Submajor* value to 0.05 and the *Minor* values to 0.025.
6. Click **Apply**.


Verify the tick marks were drawn on the correct side of the alignment.

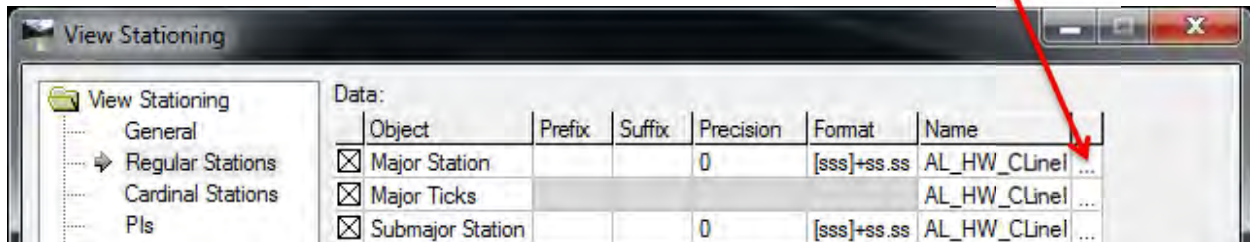
7. Select **Preferences** and save a new preference to store the modified settings.

Modifying Text Direction

The text direction is initially controlled by the style symbology. The symbology will need to be edited to change the direction of the text. Click  to open the Text Symbology dialog associated with appropriate stations text i.e. Major, Submajor, Cardinal, PIs and Station Equations Stations.

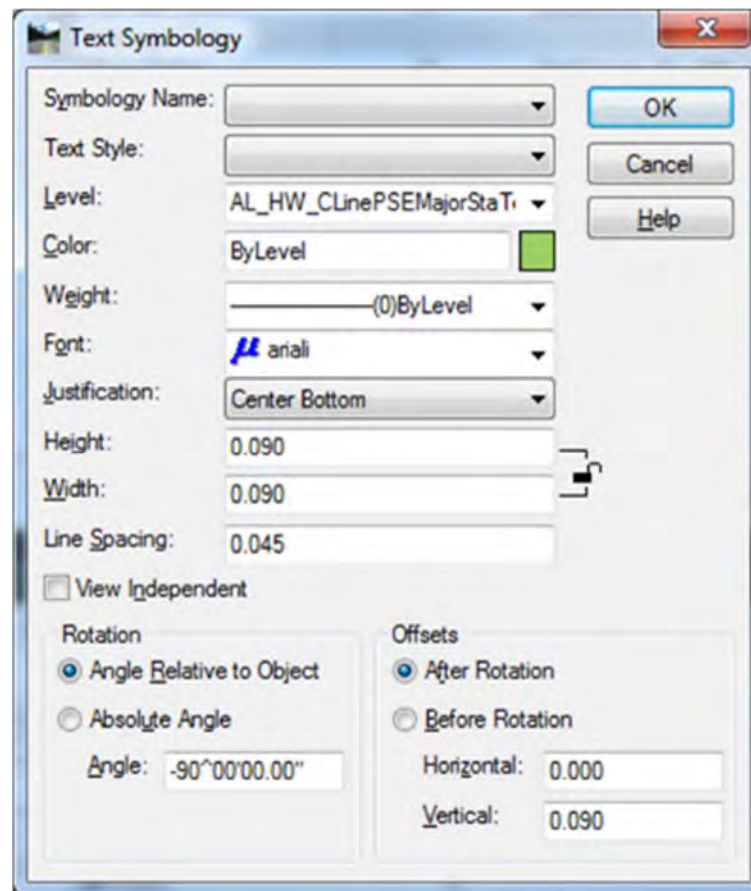
1. Select the *Geometry > View Geometry > Stationing* command.
2. Verify the correct preference is loaded.

3. Select **Regular Station** leaf.
4. In the Data: area right of the Name column for Major Station Click the  icon.



The Text Symbology dialog with the **AL_HW_CLinePSEMajorStaText** symbology loaded.

5. In the *Rotation* area change Angle: to -90

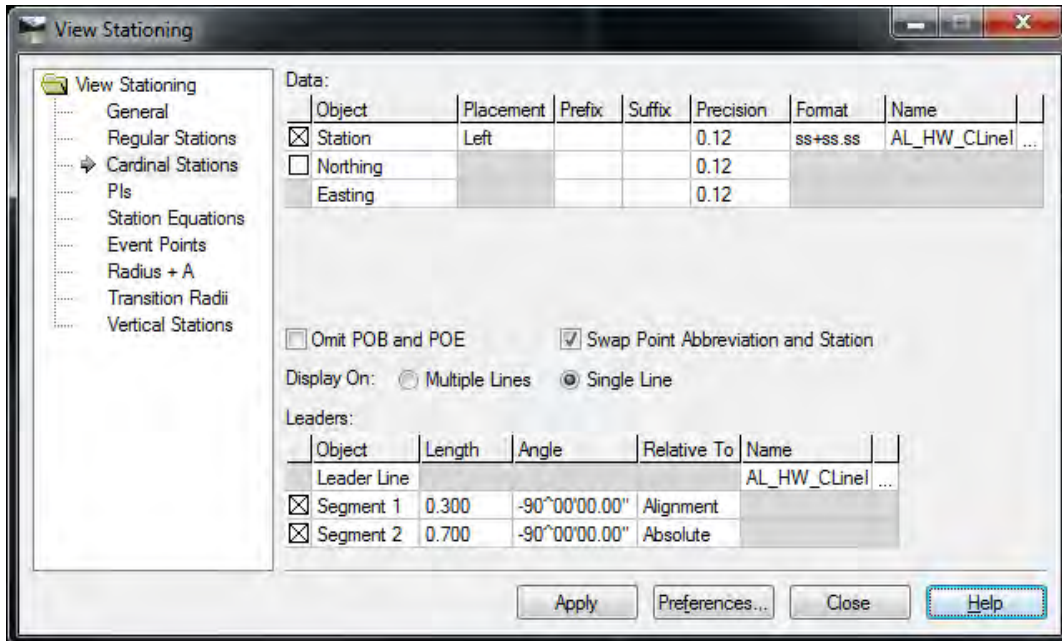


6. Click **OK** to close the Text Symbology dialog.
7. Click **Apply** the station text should redraw to the other side of the line.
8. Select **Preferences** and save a new preference to store the modified settings.

Note: this process can be used on any text symbology. You may also need to change the text justification on station leader text in order to get the text to align correctly on the leader.

Modifying Leader Direction

The leaders setting for the various station texts in the View Stationing dialog are similar. This technote will use the cardinal stations leader to demonstrate modifying leader direction. Leader Line Segment 1 determines the distance and direction of the first section of the leader and the Leader Line Segment 2 determines the distance and direction from the first leader.



1. Select the *Geometry > View Geometry > Stationing* command.
2. Select **Cardinal Station** leaf.
3. In the *Leaders:* area change *Segment 1 Angle* value to a -90
4. Click **Apply** – verify the leader segment 1 is being drawn in the correct direction.
5. Repeat step 3 and 4 if *Segment 2* is down in the wrong direction.
6. Select **Preferences** and save a new preference to store the modified settings.

View Curve Set Annotation

1. Select the *Geometry > View Geometry > Curve Set Annotation* command.
2. Select **Preferences**.
3. Select and load the appropriate preference.
4. In the *Horizontal Alignments:* drop list, select the alignment to be annotated.
5. Click **Apply**.

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