

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.

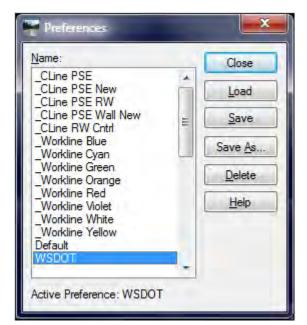
_Cline RW Cntrl – use to annotate Right of Way centerline alignment in a RW Base file.

_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.



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Project Options Preference

Before the alignment is annotated an InRoads Project Options preference may needs 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 <u>Preference Details</u> 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 <u>Preference Details</u> 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.

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Modifying Tick Direction

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

View Stationing	Data:			1	<i>i</i>	1	Day and	
General	Object		Prefix	Suffix	Precision	Format	Name	
Regular Stations	Major Statio	on		1.000	0	[SSS]+SS.SS	AL_HW_CLinel	
Cardinal Stations	Major Ticks	3					AL_HW_CLinel	
Pls	Submajor S	Station			0	[sss]+ss.ss	AL_HW_CLinel	
Station Equations	Submajor T	licks					AL_HW_CLinel	
Event Points	Minor Statio	on			0	[sss]+ss.ss	AL_HW_CLinel	
Radius + A Transition Radii	Minor Ticks	3					AL_HW_CLinel	
	Ticks		Major		Submajor	r	Minor	
	Left Offset:	-0.050	D		0.000	0.0	000	
	Right Offset:	0.050)		0.050	0,0	025	
	Interval:	1000.	000		500.000	10	0.000	

- 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 is 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 indicon.

View Stationing	Data:						
General	Object	Prefix	Suffix	Precision	Format	Name	
- 🖗 Regular Stations	Major Station		1.1.1.1.1.1	0	[SSS]+SS.SS	AL_HW_CLine	
Cardinal Stations	Major Ticks					AL_HW_CLine	
Pls	Submajor Station		1	0	[SSS]+SS.SS	AL_HW_CLine	

The <u>Text Symbology</u> dialog with the **AL_HW_CLinePSEMajorStaText** symbology loaded.

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

Symbology Name	:		 OK
Text Style:			Cancel
evel:	AL_HW_CLir	ePSEMajorStaTi	
Color:	ByLevel		Tob
Weight:		-(0)ByLevel	-
Font:	📕 ariali		-
Justification:	Center Botton	n	-
Height:	0.090		_
Width:	0.090		_ _
Line Spacing:	0.045		
View Indepen	dent		
Rotation		Offsets	
Angle <u>R</u> elativ	ve to Object	 After Rotation 	on
O Absolute Ang	gle	Before Rota	ation
Angle: .90'	00.00"	Horizontal:	0.000
		Vertical:	0.090

- 6. Click **OK** to close the <u>Text Symbology</u> 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.

View Stationing	Data:					2	
General	Object	Placement	Prefix	Suffix	Precision	n Format	Name
Regular Stations	Station	Left			0.12	SS+SS.SS	AL_HW_CLinel
	Northing		1.1.1		0.12		
Pls	Easting				0.12	-	
Event Points Radius + A Transition Radii Vertical Stations	Omit POB and				Abbreviati	on and Statio	n
Radius + A Transition Radii	Display On: () [Leaders: ObjectL		Single	e Line	ve To N	ame	
Radius + A Transition Radii	Display On: O 1 Leaders: Object L Leader Line	Multiple Lines Length Angl	Single	e Line	ve To N		
Radius + A Transition Radii	Display On: The ders: The	Multiple Lines Length Angl 0.300 -90^	Single	Relat	ive To Ni Al nent	ame	

- 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 dawn 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**.