# Workflow IR 15 - Tabling Horizontal Geometry Annotation

This document describes the Tabling function within the Horizontal Geometry Annotation command. Tabling can be used on plan sheets where there is not room to place the annotation along the alignment. The tabled data is displayed in an InRoads report. It is copied from this report into an Excel spreadsheet, formatted, then pasted into the MicroStation file.

This workflow assumes that InRoads is active and the geometry project is loaded.

## **Preparing an Excel Spreadsheet**

- 1. Create a new Excel spreadsheet. Name the spreadsheet *#####DES\_Geometry-Table.xls*. In this example 12345DES\_Geometry-Table.xls is used.
- 2. Post the file to ProjectWise in the .../Design/Drawings/Tabs folder.
- 3. Close Excel.

#### **Creating a Document Set**

- 4. In the ProjectWise Explorer select the folder where the parent drawing is located.
- 5. Right-click on the parent drawing file and select **Set** > **New** from the right click menu. This displays the *Create Document Set* dialog box.

Modify Modify Spatial Attribute Add Comment	<del>1</del> 5	
Set	· [	New
Send To	•	Modify
Copy List To	•	Content
Attributes	•	Referenced By
Change State	•	Neterenced by
Properties		Show References Show Markups
Batch Print	•	Scan References and Link Sets

- 6. Enter the name of the MicroStation file used as the parent for the **Name**: and key in a **Description**:
- <D> OK. The document set dialog box is displayed with the parent drawing listed in the window.

💦 Create Docum	ent Set	×
Create		
Name:	12345DES_PnP03	
Description:	For linked Word and Excel documents	
Description:	For linked Word and Excel documents	

8. Next, **Drag and drop** the Excel file into the document set window.



**Note:** Although documents can be added to the Document Set from any folder within the active ProjectWise datasource, ideally they sould be added from folders within the same project.

9. Once the spreadsheet is added to the document set, <**D**><**D**> on the spreadsheet in the document set dialog box to open the file.

#### Dialog Box Settings for the View Horizontal Annotation Command

 From the InRoads main menu, select Geometry > View Geometry > Horizontal Annotation. The *View Horizontal Annotation* dialog box is displayed.



- In the *Main* tab of the *View Horizontal Annotation* dialog box, <D> the Preferences button. This displays the *Preferences* dialog box.
- 12. In the *Preferences* dialog box, highlight the CDOT-Tabling preference.
- <D> Load then Close to load the preference and dismiss the *Preferences* dialog box.

Freferences	×
Name:	Close
CDOT-Tabling	Load
Derduit	Save
	Save As
	Delete
	Help
Active Preference: CDOT-Tabling	

- 14. The *Main* tab of the *View Horizontal Annotation* dialog box, <D> in the **Include** field of the *Horizontal Alignments* area.
- 15. Key in the alignment name, select it graphically, or use the **Filter** button to select the desired alignment to annotate.

View Horizontal Annotation	
Main Tabling Styles	
Apply Style           Assigned         Active         Overwrite           Horizontal Alignment:         ALG_EXISTING         Default	v
Horizontal Alignments Include: SH 86	p Points ide:
Selected: Sel	ected:
Name Desc Style Na	me Descri Style
C Display	Annotate
V Points	Points
On-Alignment 🔲 Event Points	Elements
Off-Alignment Station Equations	Duplicates
V Elements	Dual Dimensions
Radials Tangents	Try Alternate Styles
Chords Subtangents	Extend Beyond Element
☑ Display As Complex Linestring	Planarize
Apply Interactive Graphics	Preferences Close

- 16. **<D>** the **Tabling** tab.
- 17. On the *Tabling* tab, toggle on All Element Information.

18. **<D>** the **Apply** button. This displays the *Bentley Civil Report Browser* which contains the tables of the geometry elements.

🗑 View Horizont	al Annotation		- • •
Main Tabling	Styles		
Table Contents:	None		
	Basic Elemen	t Information	
	All Element In	formation	Неір
Element Namir	Ig		
Add All Eler	ments to a Single Ta	ble	
	Prefix	Seed Number	
Lines:	L	1	
Arcs:	С	1	
Spirals:	S	1	
Single Table:		1	
Display in C	ell		
Style:	ALG_EXISTING	~	
Omit Eleme	nt Naming		
Use Elemen	nt Names		
Apply	Interactive	Graphics Preferen	Close

The illustration below shows the *Bentley Civil Report Browser*.

<ul> <li>Bentley Civil Report Browser - C:\Users\cferree\Ap File Tools Help</li> </ul>	pData\Local\Ten	np\RPT343B.xml				
C:Workspace-Workspace-CDOT_V8\Standards Bridge Cart Cort -Ag CDOT Aline Description xsl -Ag CDOT Air Rights Easement Description -Ag CDOT Fee Parcel Description xsl -Ag CDOT Fee Parcel Description xsl	Input Grid F	actor: 1.000000	Horizonta Report T	I Element Ta Created: 4/8/2013 īme: 2:34pm s in this report are in fe	abling et unless specified oth	erwise.
CDOT Slope Easement Description xsl	Nr×5	Line Tabl	e	r 🔨		
CDOT Temporary Easement Descriptic	LINE NO.	BEARING	DISTANCE			$\sim$
CDOT_Horizontal Element Tabling xsl		S 74.7553 E	2795.0167	$1 \times \times \times$		$\times \times \times \times$
CDOT_HorizontalAlignmentReview-Are	L2	N 89.7399 E	1335.0550	$\mathbb{K} \times \mathbb{X}$		XXXX
A CDOT_Monumentation_Clearance.xsl	L3	S 78.7507 E	753.0330			
Clearance	XX	$\leftrightarrow$	Сштие Та	ble	$\times$	$\times \times \times \times$
Cross Slope Optimization					OPD DISTANCE	
DataCollection	C1	15°30'17"	297 6702	S 82 5077 F	296 7628	
Evaluation Geometry	C2	11°30'34"	482.1041	S 84.5054 E	481.2940	$\times$
ICS	3 <del>6x</del> 3	ÀÀ		Spiral Table		XXXX
IntersectingAlignmentStations	Name	Theta	Entrance Radio	s Spiral Length	Long Tangent	Ks Long Chord P
LandXML	Ch	ord Direction	Exit Radius	Spiral Constan	t Short Tangent	(s Ks
LightRailManufacturing						
MapCheck	/ TT	Po	int Table			
Milling 🗸	Name No	thing Easting	Elevation Des	scription Style		

#### Moving the Data to an Excel Spreadsheet

The data from the Bentley Civil Report Browser is now copied into Excel. Once in Excel, the tables can be formatted.

19. In the *Bentley Civil Report Browser*, Highlight the *Line Table*.

20. Press **Ctrl C** on the keyboard to copy the highlighted data to the clipboard.





21. Paste the copy into the Excel file (12345DES\_Geometry-Table.xls in this example).



- 22. Repeat steps 19 through 21 for the other tables in the report browser that are needed.
  - **Note:** The Arial font with a 10 pt size should be used as the default Font in Microsoft Excel documents. This size is best for readability and reproductability.

### Linking Excel Documents to MicroStation

- 1. Within the Excel file, highlight the table to be placed in the MicroStation Sheet file.
- 2. **<R>** and select **Copy** from the right click menu (Ctrl+C will also work).

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	B2	-	f <sub>x</sub>	Line Table	Arial	10 × A <sup>+</sup> × \$ × % • ≪
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4		L1	S 74.7553 E	2795.0167		<u>P</u> aste
5		L2	N 89.7399 E	1335.055		Paste <u>Special</u>
6		L3	S 78.7507 E	753.033		Insert
7						Delete
8						Clear Contents
9						Filter
10						r ni <u>c</u> i
11						Sort •
12					1	Insert Co <u>m</u> ment
13					<b>P</b>	<u>F</u> ormat Cells
14						Pick From Drop-down List
15						Name a <u>R</u> ange
16					0	Hyperlink
17						

3. Within the MicroStation file, select Edit > Paste Special from the MicroStation menu. The *Paste Special* dialog box is displayed.



4. In the *Paste Special* dialog box, <D> Linked Microsoft Office Excel Worksheet and <D> Paste. This displays the *Paste OLE* dialog box.



5. In the *Paste OLE* dialog box, Set the *Method* to By Size and set the *Scale* to *1000*.

🖇 Paste OLE Object 📃 🖃 💽
Object: Microsoft Office Excel Worksheet Paste as <u>M</u> ethod: By Size
<ul> <li>□ Display as icon</li> <li>□ Transparent Background</li> <li>☑ Rotate With View</li> <li>Scale: 1000.0000</li> <li>Size: (2531.102 x 1229.134) "</li> </ul>

- **Note:** The Scale to place the link at should be 10 times *the Annotation Scale* of the MicroStation file.
  - 6. A dashed line attached to the cursor show the size of the item being placed. Move the item to the desired location and then <D> to place it.

X		
L		
Print Date: \$DATE\$		
File Nome: \$FILES\$		
Horiz, Scale: \$SCALESHORT\$	Vert. Scale: As Noted	$\bigcirc$
Unit Information	Unit Leoder Initials	$\Box$
		$\Box$

For more information about placing linked Excel data into MicroStation, see *CDOT Workflow OP 2* - *Linking Excel Documents to MicroStation*.