



The Envision Group Inc. specializes in MicroStation, InRoads, AutoCAD, CAiCE & Civil 3D software. We utilize our experience by teaming with you to provide training, consulting, and support to users and system administrators. We also provide 3D virtual modeling services using MicroStation, InRoads, and other advanced software.

News

New addition to the team



Karen Weiss is the Engineering Applications Manager at The Envision Group. She has over 18 years of experience in highway engineering, with a special emphasis on using technology to streamline engineering processes. Karen spent over 16 years with the Wisconsin Department of Transportation (WisDOT), where her experience was highlighted by her role in the development and execution of the implementation plan for Autodesk's CAiCE software. As part of this implementation, she developed courseware and provided training for over 300 engineering professionals. She also provided guidance and

support for users statewide for processes integrating CAiCE and MicroStation. Karen has presented at various seminars and conferences throughout the country on topics related to computer-aided engineering and design and has a special interest in automated solutions involving the complete life-cycle of engineering data. Karen spent the last 2 years working for a private consulting firm, managing and working on projects ranging from small planning studies to highway design involving full reconstruction.

Karen's engineering software expertise and knowledge extends to AutoCAD Civil 3D, which she has been involved with since the first release. Of particular interest to Karen is the corridor modeling capabilities of Civil 3D, data shortcuts and the Vault, and the GIS component (Map 3D). Karen holds a Bachelor of Science degree in Civil and Environmental Engineering from the University of Wisconsin, and is a registered Professional Engineer in Wisconsin.

New offerings at The Envision Group

To coincide with the addition of Karen Weiss to the team, The Envision Group now offers training, consulting, and development assistance in AutoCAD, Civil 3D, and CAiCE. You should note that our monthly newsletter will include tips for AutoCAD, CAiCE, or Civil3D in addition to our MicroStation and InRoads tips. [Let us know](#) if we can assist you in any of these areas.

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SPREAD THE WORD

Spread the word. Pass this newsletter on to a friend. If a friend forwarded this issue to you, [sign up](#) for your own copy.

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Events

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- [BCUKI Winter Conference 2008](#) - Feb 28-29, 2008
Sheraton Heathrow Hotel - London, UK
- [Nebraska User Group Spring 2008 Conference & Workshops](#) - Mar 17-18, 2008
Cornhusker Marriott - Lincoln, Nebraska
- [FOSE 2008 Exhibition](#) - Apr 1-3, 2008
Walter E. Washington Convention Center, Washington, DC

Visit The Envision Group booth #2929 in the Small Business Pavilion

- **CAD Managers Forum** - April 9, 2008 (9:00am – 2:00pm)
Strand Associates - 910 West Wingra Drive, Madison, WI
Now expanded to include a technical session!
The Envision Group will sponsor an introduction and Q&A session about AutoCAD Map and MicroStation Geographics during a technical session from 9:00 to noon. After a quick lunch the CAD Managers will reconvene.
Please [RSVP](#) by April 2nd so we can get a good head count.
- [BE Conference 2008](#) - May 28 - 30, 2008
Baltimore Convention Center - Baltimore, MD
- [The IDDEA Group 2008 Fall Conference](#) - Oct 1-3, 2008
Scheman Center on Iowa State Campus - Ames, Iowa

Are there TMC Meetings, Seminars, Trade shows, and Conferences you think are interesting?
[Let us know](#) and we will add them to our newsletter.

MicroStation Tip

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Printing Combined Keyins

With so many plot drivers, pen tables, and setup options to choose from, users sometime struggle to standardize plots. New keyins were made available in V8 2004 Edition that when combined can automate printing for the user which will help standardize plotting.

By loading a printing keyin to a function key or toolbar you will have a one push button that creates standard plots.

Example Print Keyins

```
PRINT PRINTERNAME [printer name]
PRINT DRIVER [print driver file name]
PRINT BOUNDARY FENCE
PRINT PENTABLE ATTACH [pentable file name]
PRINT PAPERNAME [name of paper]
PRINT MAXIMIZE
PRINT FULLSHEET [ON or OFF]
PRINT EXECUTE
PRINT PREVIEW
PRINT DIALOG
PRINT ATTRIBUTES DATAFIELDS [ON or OFF]
PRINT ATTRIBUTES LINEWEIGHTS [ON or OFF]
```

These keyins are just a sample of what is available see Bentley Help for the complete list of printing combined keyins.

In this simple example the eight keyins will submit the print using a fence boundary that has a paper size ANSI C. The MDL keyin is required for the printing keyins to work then each keyin needs to be separated by a semicolon.

```
MDL LOAD PLOTDLG
PRINT DRIVER Company-Printer.plt
PRINT BOUNDARY FENCE
PRINT PENTABLE ATTACH Company-Pentable.tbl
PRINT PAPERNAME ANSI C
PRINT MAXIMIZE
PRINT FULLSHEET ON
PRINT EXECUTE
```



Taking it one step further you can add keyins to create a saved view and to prompt the user to place a fence prior to sending the plot. The saved view keyin creates a saved view with description. The place fence %D;%D keyin will pause for the user to place two data points in the drawing then will continue with the rest of the keyin string. Also added is a print preview keyin which will allow you to review the print. The actual keyin string would look like this.

```
SV=SAVED PLOT VIEW 1,Company-Printer.plt and Company-Pentable.tbl;SELVIEW 1;  
PLACE FENCE BLOCK; %D; %D; MDL LOAD PLOTDLG;PRINT DRIVER Company-  
Printer.plt;PRINT BOUNDARY FENCE;PRINT PENTABLE ATTACH Company-Pentable.  
tbl;PRINT PAPERNAME ANSI C;PRINT MAXIMIZE;PRINT FULLSHEET ON;PRINT  
PREVIEW;PRINT EXECUTE
```

[[Tip Archives](#)]

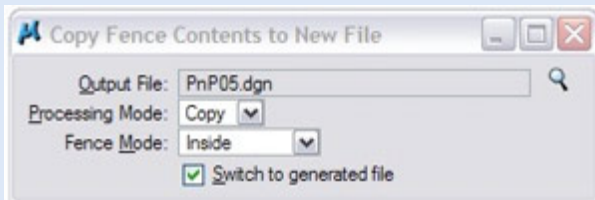
MicroStation XM Tip

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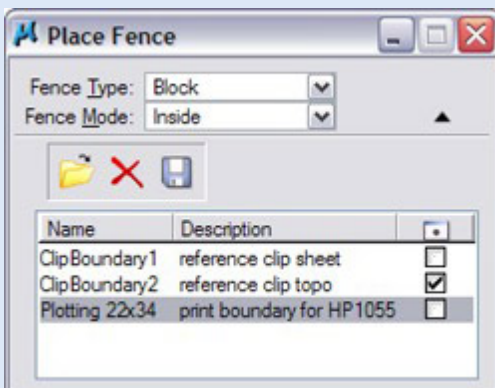
XM - Fences Enhancements

Fences

Copy Fence Contents to New File tool was added to the Fence toolbar. This icon replaces the key-ins “Fence File” and “Fence Separate” which will copy and move contents of a fence to a new drawing.



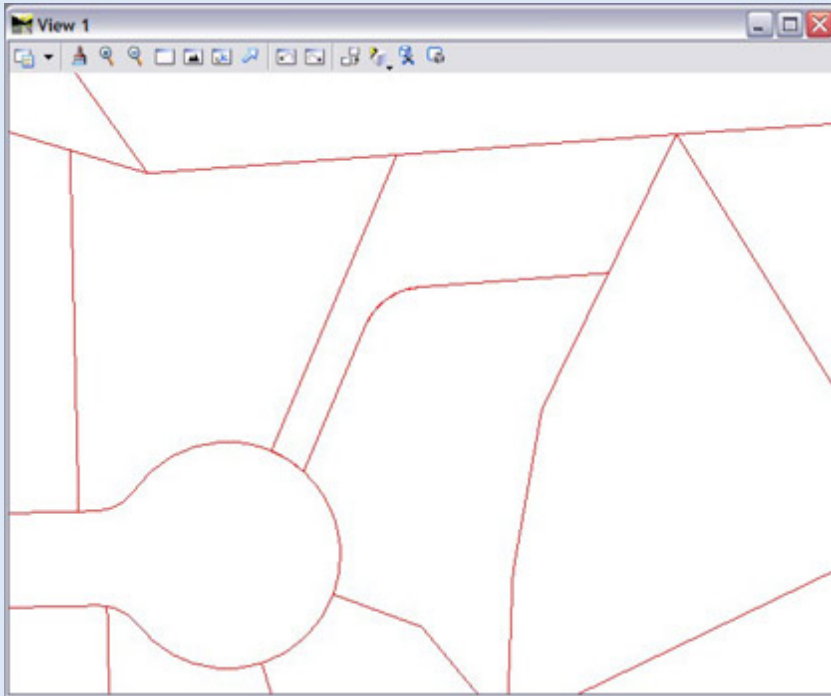
Saved Fences have been added to the expand section (down arrow) of Tool Settings dialog for the place fence tool. A saved fence allows the user to recall and managed different fences in one drawing. The example shown below is one example on how to manage and utilize them.



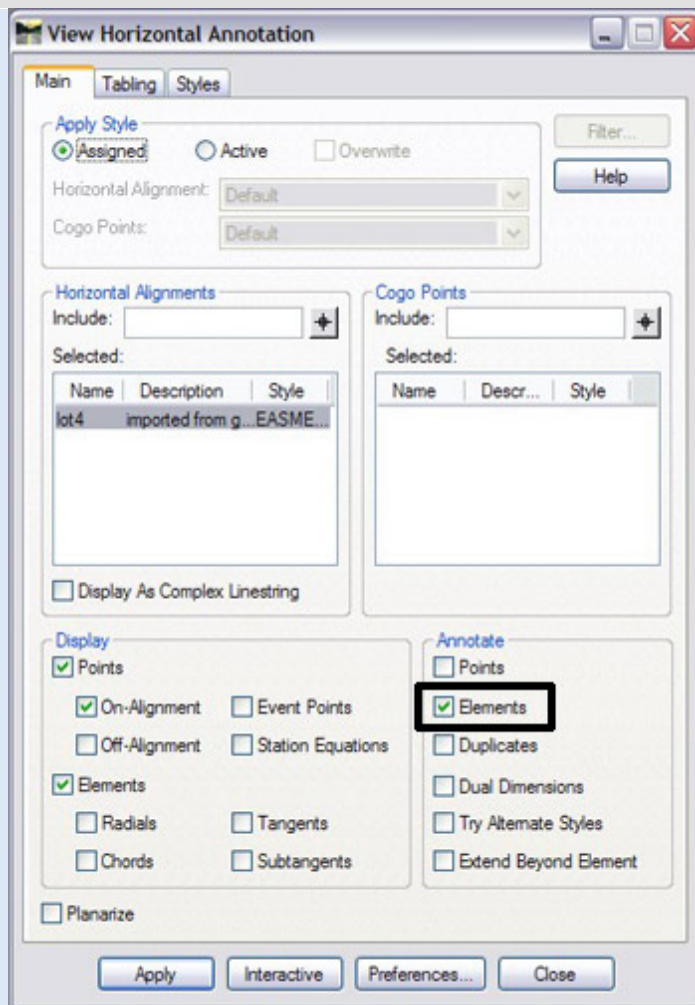
[[Tip Archives](#)]

InRoads XM - Tabling Geometry Annotation

Creating tabled alignment information is accomplished through the use of XML reporting. The general workflow is still the same but is viewed using the InRoads XML Report browser.

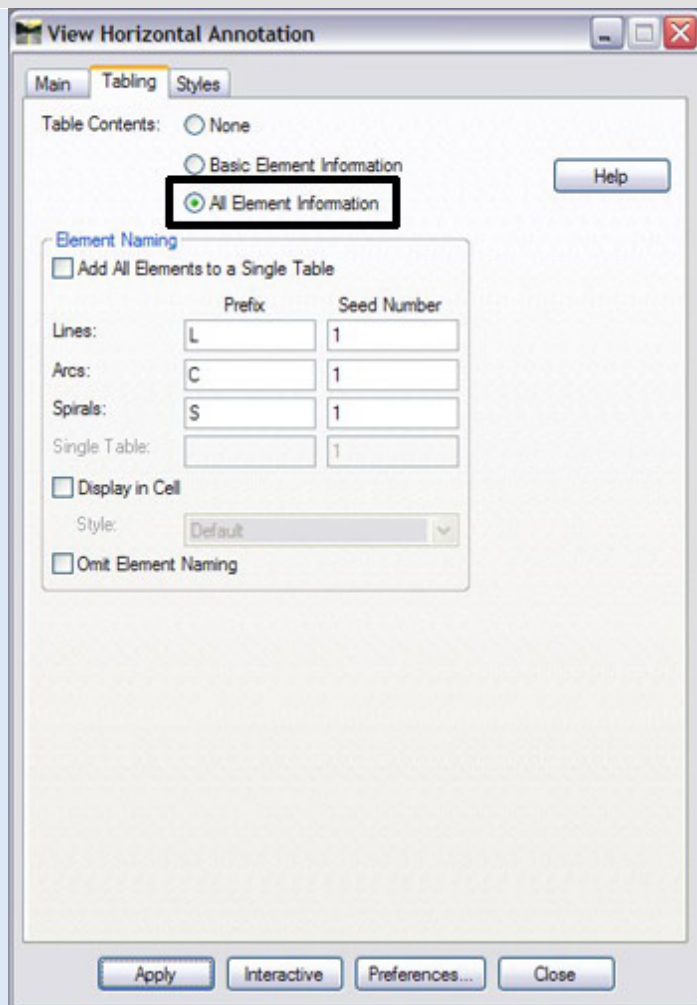


1. From the InRoads dialog pull down menu select **Geometry > View Geometry > Horizontal Annotation**. The Horizontal Annotation dialog will appear.
2. Define the Horizontal Alignment(s) for annotation.

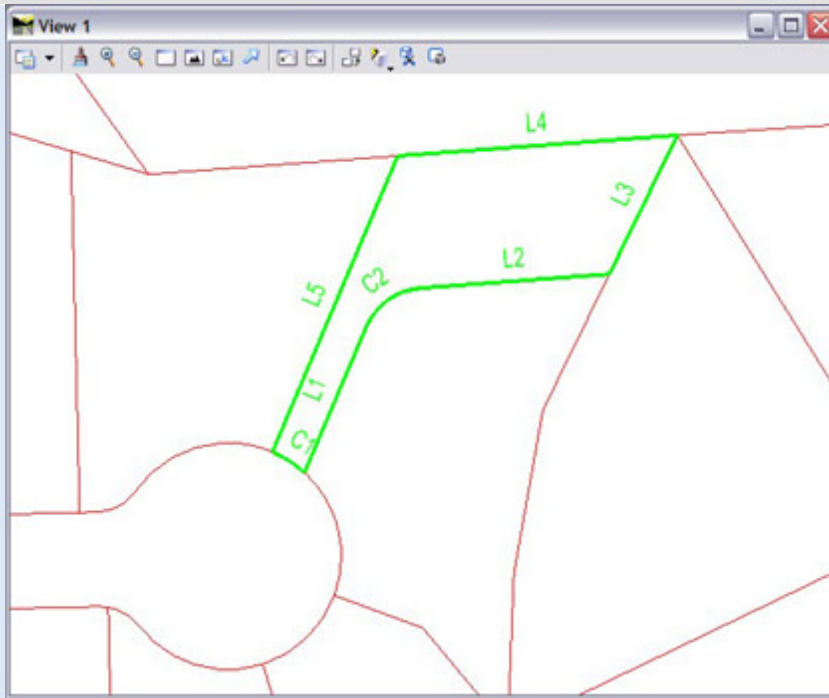


3. Check **Annotate Elements** box.

4. Select the **Tabling** tab.



5. Select the **Table Contents** radio button **All Element Information**.
6. As an option, also check on 'Add all Elements to a Single Table'
7. Type the **Element Naming** for the **Prefix** and **Seed Number**.
8. Select the **Apply** button. The index graphics will be written to the screen and the Bentley Report Browser will open.



9. Select the **Tabling folder** and **Horizontal Element Tabling** style sheet to review the data. Once you find an XML style sheet you like, right-click on the style sheet and set it to the default for horizontal element tabling so that it is automatically used next time you generate a tabled report.

Horizontal Element Tabling

Report Created: 2/5/2008
Time: 11:19am

Input Grid Factor: 1.00000000 Note: All units in this report are in feet unless specified otherwise.

| Line Table | | |
|------------|--------|-----------|
| Name | Length | Direction |
| L1 | 83.90 | 0.40 |
| L2 | 100.60 | 1.50 |
| L3 | 81.84 | 0.46 |
| L4 | 148.62 | 4.64 |
| L5 | 170.17 | 3.54 |

| Curve Table | | | | | | |
|-------------|--------|------------|--------------|----------------|-----------------|-------------------|
| Name | Radius | Arc Length | Chord Length | Tangent Length | Middle Ordinate | External Distance |
| C1 | 60.00 | 20.39 | 20.29 | 10.29 | 0.86 | 0.88 |
| C2 | 33.66 | 36.89 | 35.07 | 20.54 | 4.93 | 5.77 |

| Spiral Table | | | | | | | |
|--------------|-----------------|-----------------|-----------------|---------------|----|------------|----|
| Name | Theta | Entrance Radius | Spiral Length | Long Tangent | Xs | Long Chord | P |
| | Chord Direction | Exit Radius | Spiral Constant | Short Tangent | Ys | | Ks |

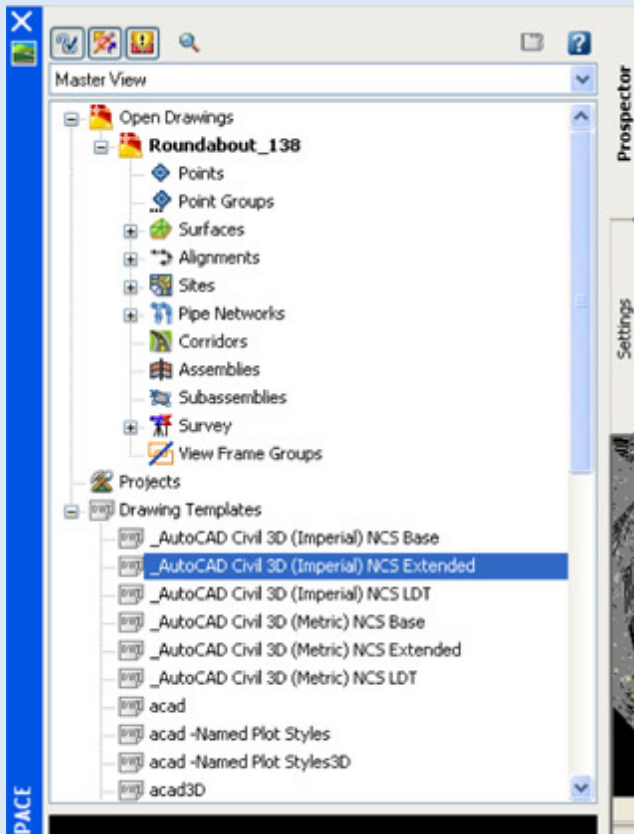
| Point Table | | | | |
|-------------|----------|--------|-----------|-------------|
| Name | Northing | Eastng | Elevation | Description |
| | | | | Style |

10. The report information can be copied from the browser and pasted to word, excel, or MicroStation.

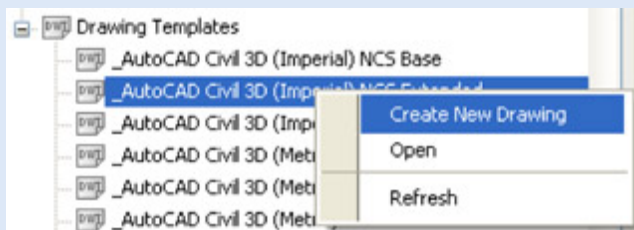
[[Tip Archives](#)]

Creating a New Drawing – Enforcing Standards

You can manage the creation of all your drawings in Civil 3D through the Prospector tab. In the Prospector tab, if you are in the Master View, in addition to seeing all the Projects and Drawings that are currently Open, you will also see a branch for Drawing Template.



The Drawing Templates you see here are ONLY those found in the location set by the 'Drawing Template File Location' setting in the Files tab of the AutoCAD Options dialog. Highlight the desired drawing template, and right-mouse click to access the menu shown below. Select Create New Drawing.



Using this method limits the drawing templates that can be used to those found in a location specified by the CADD Manager. This is one way to enforce the use of standards when creating new drawings in Civil 3D

[[Tip Archives](#)]

Open Enrollment Classes

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Open-Enrollment Classes With Seats Available.

[MicroStation V8 - Everything 3D](#)

Feb. 20-22

Madison, WI

[MicroStation V8 - Power User](#)

Apr. 15-16

Madison, WI

| | | |
|---|------------|-------------|
| MicroStation V8 - 2004 User Upgrade | May 1-2 | Madison, WI |
| MicroStation V8 - Everything 3D | May 14-16 | Madison, WI |
| InRoads - Site | Mar. 3-5 | Madison, WI |
| InRoads - Fundamentals | Mar. 10-14 | Madison, WI |
| InRoads - Survey | May 20-21 | Madison, WI |

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