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## Chapter 6: Line Styles

### Overview

MicroStation comes with 8 standard Line Styles, which is usually enough for only the most basic MicroStation drawing. Custom Line Styles are MicroStation's way of creating other Line Style for specific purposes. Line Styles for utilities that have text imbedded in the line, fence Line Style with X's along it are examples of Line Styles that can be created. Custom Line Styles, unlike the fonts discussed in chapter 5, are still contained in resource files with the extension **.rsc**. The information provided in this chapter discusses how CFLHD will access, activate, and place custom line styles for us. Also contained in this chapter is information about the line style resource files including:

Names

Locations

Workflow for attaching resource file

Line Style settings and scaling

### Custom Line Styles

Line Style resource files are automatically read by MicroStation and will be shown as available Line Styles, provided your machine is properly configured. These files will be attached when entering MicroStation through a project configuration file and the use of these will be seamless. CFLHD uses two **.rsc** files. One file is shared by all three FLH divisional offices. CFLHD has additional or modified styles that are contained in a separate resource file.

The FLH custom Line Style resource files can be found on the CFLHD network at: **N:\V8i\_resource\FLH\_Common\MicroStation\Resources\**

#### **FLH\_LineStyles.rsc**

The CFLHD custom Line Style resource files can be found on the CFLHD network at: **N:\V8i\_resource\CFL\_Local\MicroStation\Resources\**

#### **CFL\_Linestyles.rsc**

For consultants, FLH & CFLHD line style resources files are available through the **V8i\_resource.zip** download.



For CFLHD employees, custom Line Styles are automatically attached while opening a design file using the Project Configuration (\*.pcf). Contact CADD support to get properly setup if the correct Line Styles are not displaying.

## Workflow 1: Resource file setup

To access this workflow, follow this link:

[http://www.cflhd.gov/resources/CADD/documents/Workflow\\_6.1\\_Linestyles\\_Resourcefilesetup\\_x30.pdf](http://www.cflhd.gov/resources/CADD/documents/Workflow_6.1_Linestyles_Resourcefilesetup_x30.pdf)

### Accessing and Placing Custom Line Styles

Selecting custom Line Styles in MicroStation V8 is a simple process as each Line Style found in the attached .rsc file will automatically show up in the Line Styles dropdown menu, as shown below.

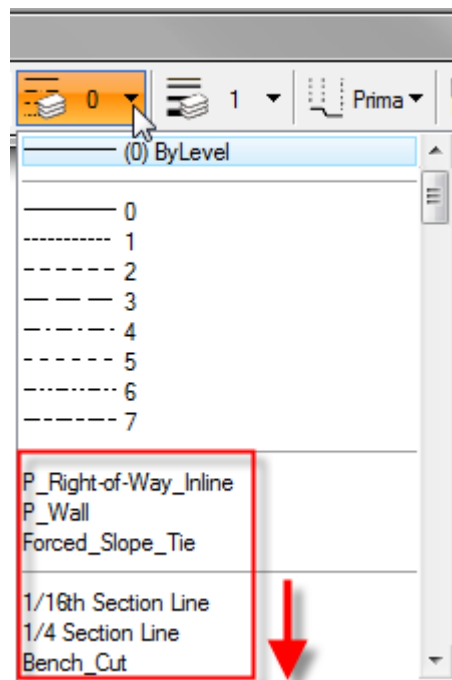


Figure 6-1: Select Custom Line Style

Each of the Line Styles available may be selected by using the scroll bar to find and select the desired Line Style.

As shown above, there is also a selection for ByLevel. This allows a Line Style to be attached to a particular level. Setting the level as the active level will automatically select the Line Style as set in the level library. See chapter 9, Levels and Symbology, for more information on ByLevel attributes.

### Custom Line Styles dialog

To view or edit the settings a custom Line Style before placing it, the Custom Line Styles dialog is used. Select **Element>Line Styles>Custom**, as shown below.

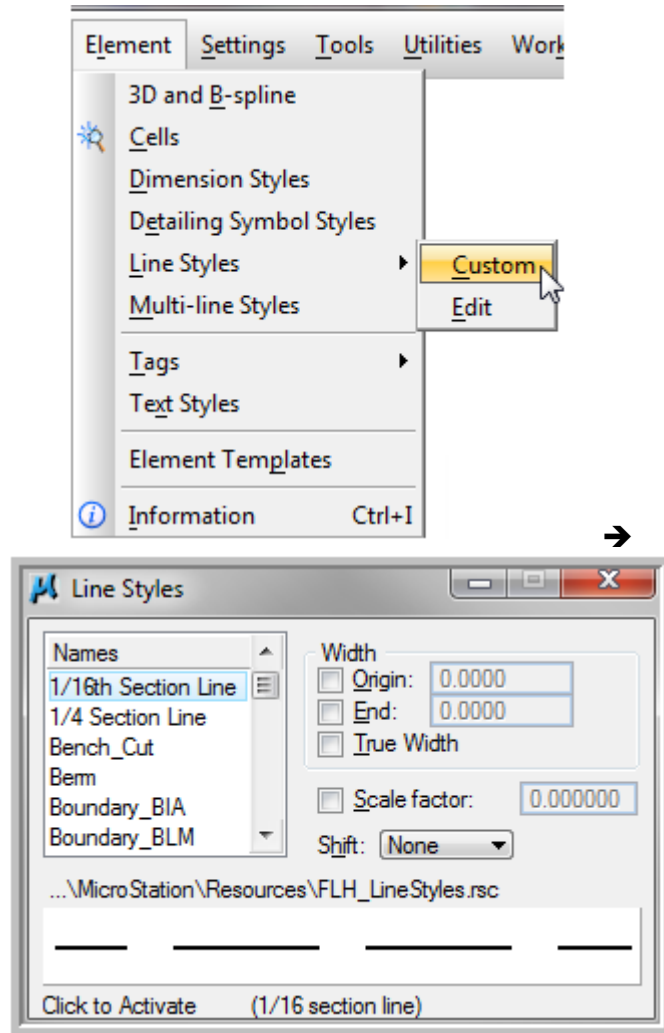


Figure 6-2: Custom Line Style dialog

With the dialog box for custom Line Styles, shown above, you have the ability to select/set styles and attributes such as **scale factor**. The dialog lists the names of line styles in the open line style libraries. MicroStation searches for and automatically opens the line style libraries specified in the MS\_SYMBRSRC configuration variable settings.

Double-clicking a line style name makes the line style the Active for element placement.

## Line Style Scaling

MicroStation elements should be displayed in plan sets with styles and scales that follow the presentation within the [Conventional Plan Symbols and Abbreviations "Template" drawing](#). Line Style scales have been created to be placed at the correct scale for a 1" = 100' plan sheet when a scale factor of 1 is used.

### Line Style Scaling through the D&C Manager

Some of the FLH items within the Design and Computation (D&C) manager have custom line styles associated to them. The correct Scale Factor needs to be set prior to placement of these items. The Scale Factor is set within the Design Settings from the top menu on the D&C dialog.

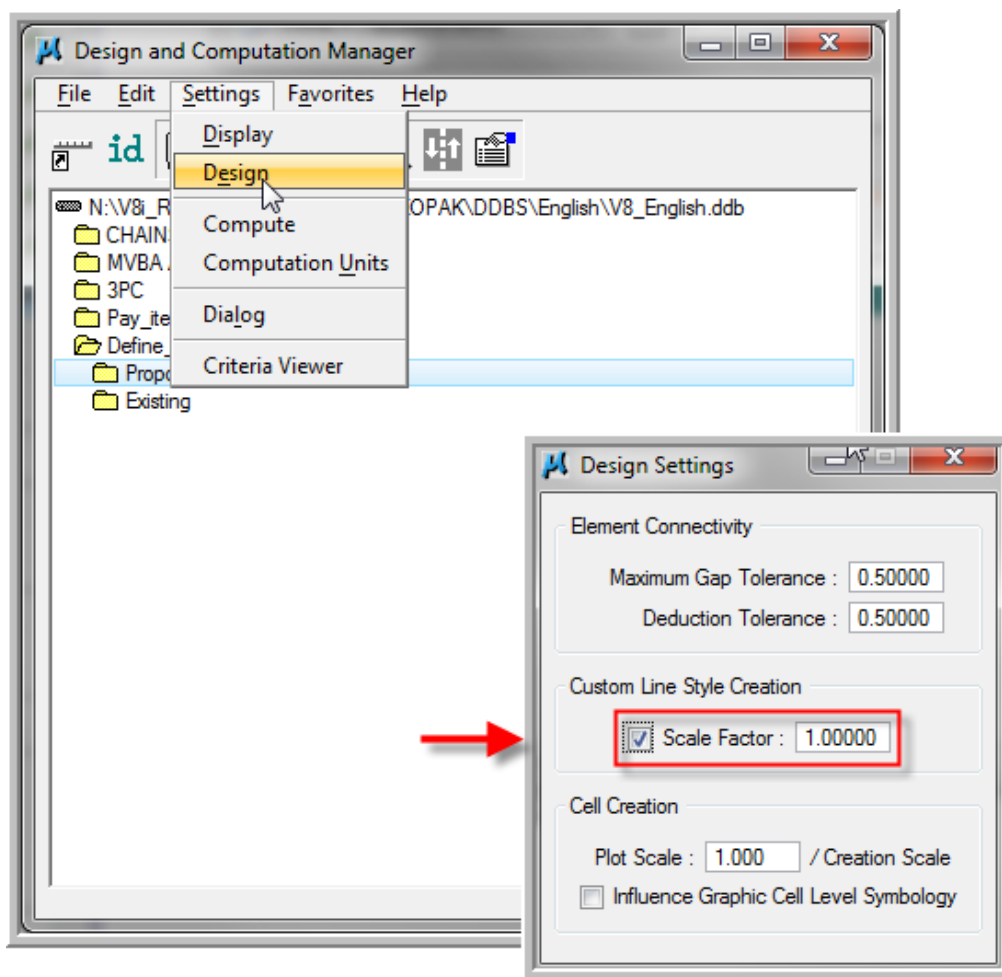


Figure 6-3: D&C Manger Design Settings and Scale Factor



Note that some items in the D&C manager database do not have line styles set, but the CFLHD Conventional Plan Symbols and Abbreviations have a custom style. These instances are due to differences within the FLH divisional offices for Line Style usage. CFLHD conventional styles need to be applied after placement of the element through the D&C manager.

### Correcting/Modifying Line Style Scales

It is tough to determine the existing scale factor used for a particular MicroStation element. Furthermore, using the “Scale Factor” in the Custom Line Styles dialog only applies a factor to the scale. This can create scales and plan appearances that are not correct. A recommended method for correcting line style scales is by using the “absolute” setting within the Modify Line Style Attribute toolbox. Select the Scale attribute icon, toggle on both the Scale (with the desired “true” scale value) and the Absolute settings.

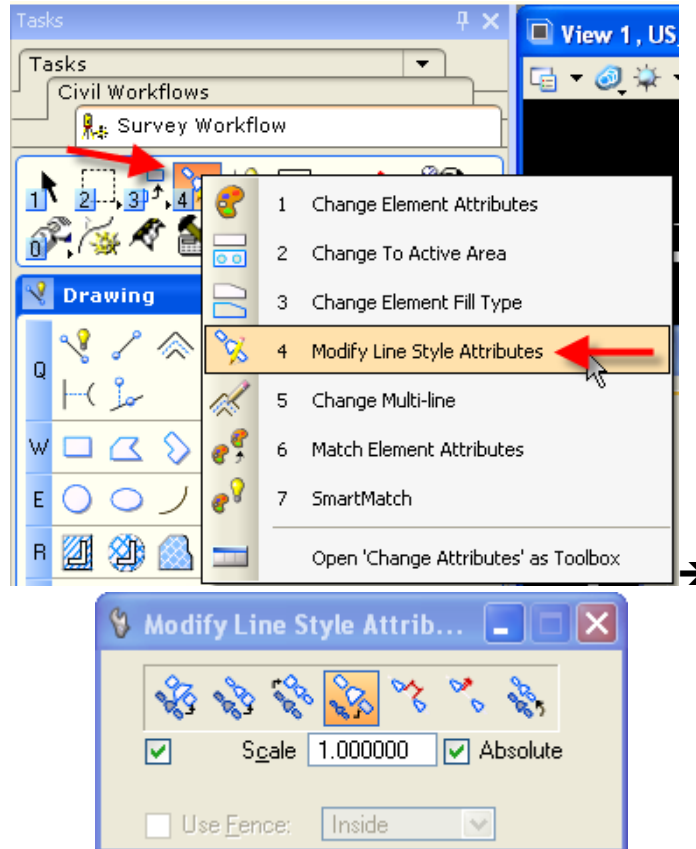


Figure 6-4: Modify Line Style Attributes

## Global Line Style Scaling

Similar to Annotation Scale with text and dimensions, Line Style scales can now be globally modified within a “Models” property. Changing the Global Line Style Scale will only affect that particular model, but will modify the line style scales within the active model and any referenced models.

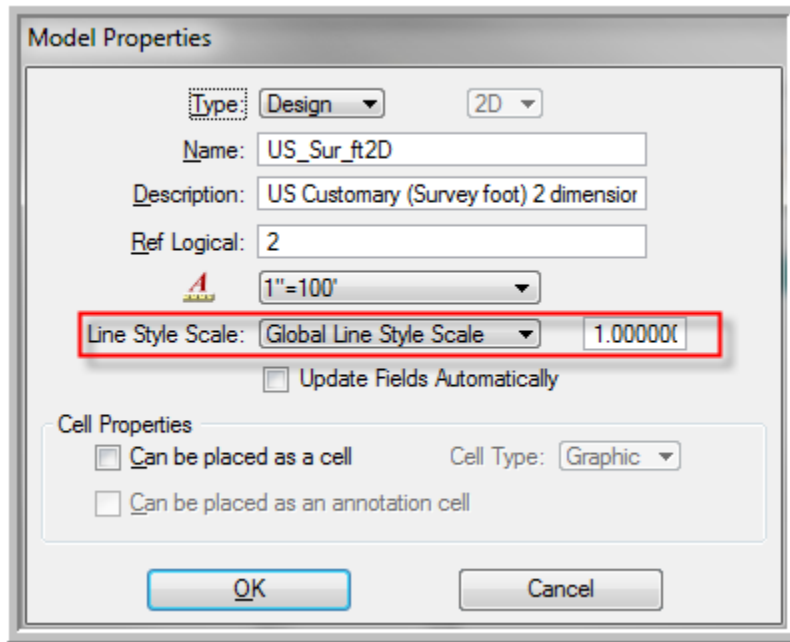


Figure 6-1: Model Properties – Global Lin Style Scale