

Text Styles
&
Dimension Styles
MicroStation V8.5 2004
Edition

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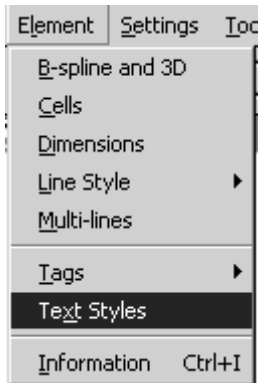
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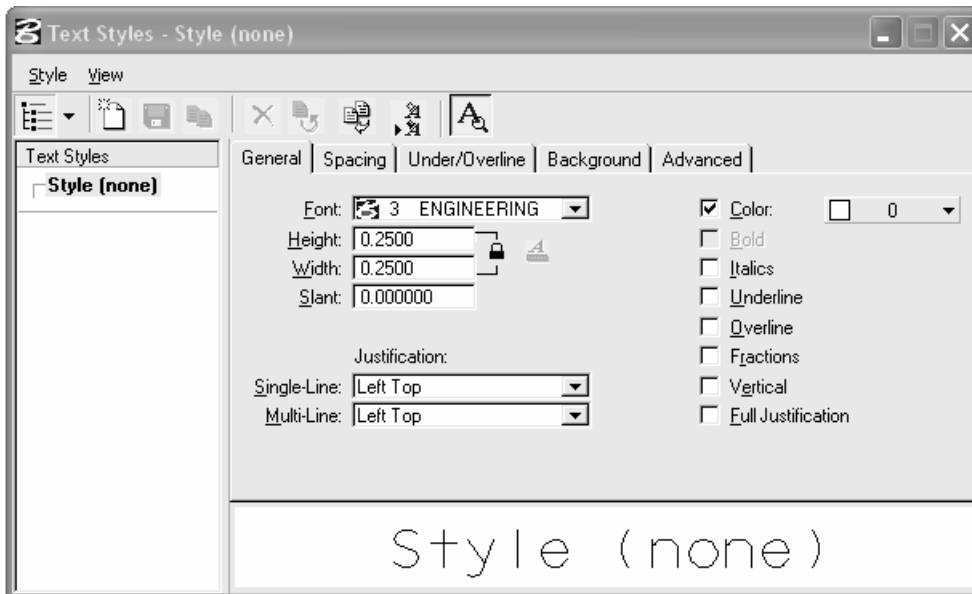
Text Styles

AutoCAD: DATTDEF



Text styles are the primary means by which text attributes are defined and applied in MicroStation V8. A text style is a saved set of text attributes. You can define text styles and apply them to text elements during and after placement.

The Text Style Editor dialog box (Element > Text Styles) is used to manage text styles. The **Place Text** and **Change Text Attributes** tools each have a Text Style option menu for choosing the text style to apply. If the active text style is set to (none), the active text attributes are applied.

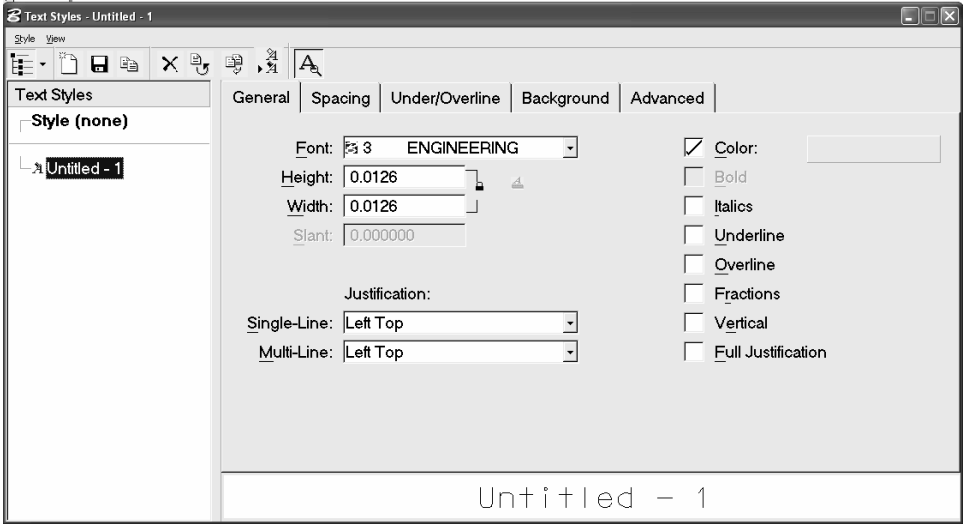


Creating a Text Style

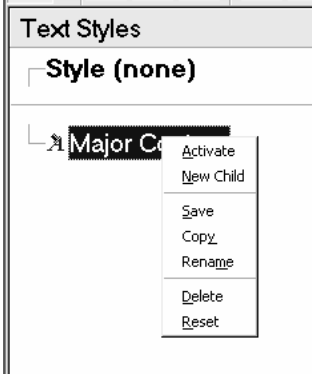
Select the **New** icon on the Text Style dialog box or from the **File > New** pull down menu.



The new text style will be created named **Untitled** – to change the name. Hit return to complete.



You can also Right Click on the style name to rename the text style.



Now you have all the text setting available to define for this Style.

Also from the Text Styles dialog box you can Import text styles from another design file. I would recommend setting the text styles up in your seed file.

General

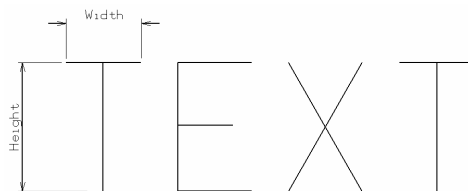
General	Spacing	Under/Overline	Background	Advanced
Font: 3 ENGINEERING		<input type="checkbox"/> Color: <input type="text"/>		
Height: 0.0126	<input type="checkbox"/> Bold			
Width: 0.0126	<input type="checkbox"/> Italics			
Slant: 0.000000	<input type="checkbox"/> Underline			
Justification:		<input type="checkbox"/> Overline		
Single-Line: Left Top	<input type="checkbox"/> Fractions			
Multi-Line: Left Top	<input type="checkbox"/> Vertical			
		<input type="checkbox"/> Full Justification		

Font – Select the Active Font from the drop down list:

Font	3 ENGINEERIN
Width	100 ANSI_SYMBOLS
Height	41 ARCHITECTURAL
Slant Angle	42 BLOCK_OUTLINE
Line Spacing	127 CHAR_FAST_FONT
Inter Character Spacing	7 COMPRESSED
Color Value	3 ENGINEERING
Underline Offset	2 FANCY
Overline Offset	101 FEATURE_CONTROL_SYMBOLS
Line Offset X	60 FONT060
Line Offset Y	140 font75
Justification	144 font85
Node Justification	148 font95
Line Length	235 font_iso
Vertical	130 gen_eng
Backwards	26 GREEK
Upside Down	
Background Border Color	

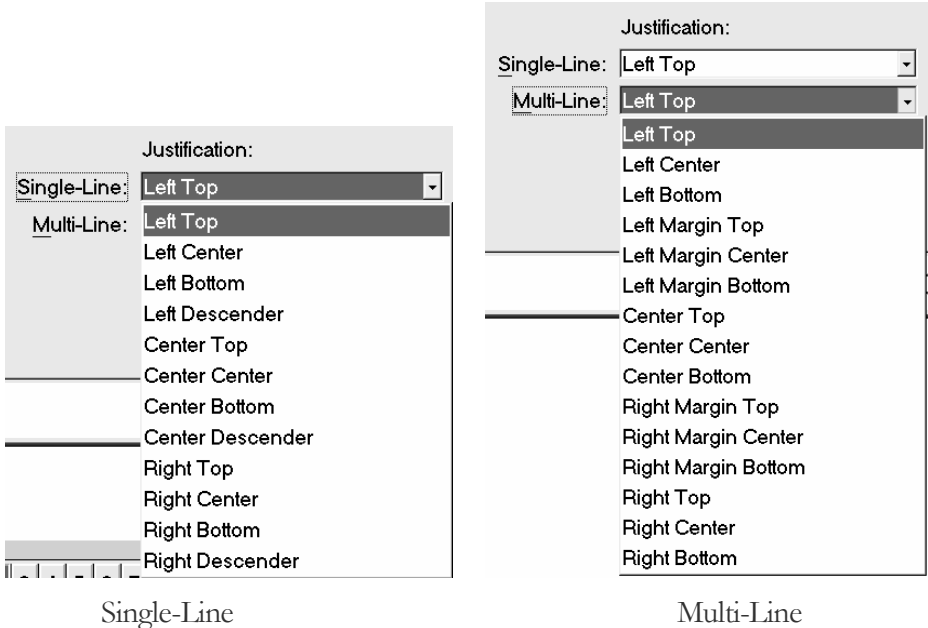
Width – the width in working units in which the text is placed.

Height – the height in working units in which the text is placed.



Slant Angle – Enter the Slant angle in degrees but you must have the Italics option on for the slant to be applied. The Slant Angle only applies to MicroStation Fonts.

Justification – Justification is the position of the text relative to the origin.



Color – If on, uses the Text color contained within the style.

Bold – If on, places bold text. Only works with True type fonts.

Italics – If on, the text is Italicize. This setting works with TrueType fonts. If you want to slant MicroStation font you will still use the Slant option.

Underline – If on, underlines the text.

Overline – If on, over lines the text.

Fractions – If on, using a MicroStation resource font by placing a slash will convert to a single text with a numerator over denominator.

Vertical – If on, the text is oriented vertically. Remember to use the Inter Character Spacing to set a distance between each character, if not your letter will be touching each other.

Full Justification – If on, performs full text justification.

VERTICAL

Spacing

General	Spacing	Under/Overline	Background	Advanced
	Line Length: <input type="text" value="0"/>			<input type="checkbox"/> Fixed Spacing
	Line Spacing: <input type="text" value="0.0000"/>			<input type="checkbox"/> Backwards
	Line Spacing Type: <input type="text" value="Exact"/>			<input type="checkbox"/> Upside Down
	Intercharacter: <input type="text" value="0.0000"/>			<input type="checkbox"/> Super Script
	Line Offset X: <input type="text" value="0.0000"/>			<input type="checkbox"/> Sub Script
	Line Offset Y: <input type="text" value="0.0000"/>			

Line Length – The maximum number of characters per line in a text element. Maximum is 64,000.

Line Spacing – the vertical spacing in working units between multi-line text, and the spacing between the element and text when using Above, Below or Along element.



Line Spacing Type – the vertical spacing between Text and an element with any of these Methods: Exact, Automatic, From Line Top, or At Least.

Intercharacter – Each character is built inside of a square. With the Inter Character Spacing defined as 0 (default), each character is placed with the squares around each character butted side by side. You can expand the spacing between each character by increasing or decreasing the distance of the Inter Character Spacing in working units.



Line Offset X – the spacing in working units between the text and the position from which the text is drawn in the X.

Line Offset Y - the spacing in working units between the text and the position from which the text is drawn in the Y.

Fixed Spacing – If on, uses the Inter Character Spacing value to define the distance from the start of one character to the start of the next character.

Backwards – If on, reverse the orientation of the text horizontally when placed.



Upside Down – If on, places the test upside down.



Superscript – If on, the text is placed with superscript characteristics.

Subscript – If on, the text is placed with subscript characteristics.

Under/Overline

General	Spacing	Under/Overline	Background	Advanced
<input checked="" type="checkbox"/> Underline		<input checked="" type="checkbox"/> Overline		
<input checked="" type="checkbox"/> Use Style Below		<input checked="" type="checkbox"/> Use Style Below		
Offset: <input type="text" value="0.0025"/>		Offset: <input type="text" value="0.0025"/>		
Color: <input type="text"/>		Color: <input type="text"/>		
Style: <input type="text" value="0"/>		Style: <input type="text" value="0"/>		
Weight: <input type="text" value="0"/>		Weight: <input type="text" value="0"/>		

Underline

Offset – The spacing in working units between the text and the underline. This value use to be set in the Workspace -> Preferences Text and was a percentage of the overall text size.

Color – If Underline is on, the color of the underline.

Style - If Underline is on, the style of the underline.

Weight - If Underline is on, the weight of the underline

Overline

Offset – An Overline is like the underline but places the line over the top of the text. The Overline Offset sets the spacing in working units between the top of text and the overline.

Color – If Overline is on, the color of the Overline.

Style - If Overline is on, the style of the Overline.

Weight - If Overline is on, the weight of the Overline.

Background

General	Spacing	Under/Overline	Background	Advanced
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Background

Fill Color:

Background Border:

Offset X:

Offset Y:

Color:

Style:

Weight:

Engineering

Background – If on, places text with the active background.

Fill Color – The color of the background fill. The Background Fill Color can be used to place text over Elements without having to partial deleting the elements.

Background Border

Offset X – Defines the distance in working units from the top of the text and the top of the border. Also defines the distance between the bottom of the text and the bottom of the border.

Offset Y – Defines the distance in working units from the right side of the text and the right side of the border. Also defines the distance between the left side of the text and the left side of the border.

Color – Sets the color of the border around the text if the Background attribute is on. If you do not want to see the border around the text, set the border color the same as the Background Fill Color.

Style – Sets the line style of the border around the text if the Background attributes is on.

Weight – Sets the weight of the border around the text. The line weight range is from 1 to 15 in working units.

Advanced

General Spacing Under/Overline Background Advanced				
Name	Value	Parent	Override	Cal
Style Name	Major Contour			Ge
Parent Style Name	- None -			Ge
Font	Arial		<input type="checkbox"/>	Ge
Width	0.0126		<input type="checkbox"/>	Ge
Height	0.0126		<input type="checkbox"/>	Ge
Slant Angle	0.000000		<input type="checkbox"/>	Ge
Line Spacing	0.0000		<input type="checkbox"/>	Sp
Inter Character Spacing	0.0000		<input type="checkbox"/>	Sp
Color Value	2		<input type="checkbox"/>	Ge
Underline Offset	0.0025		<input type="checkbox"/>	Un
Overline Offset	0.0025		<input type="checkbox"/>	Ov
Line Offset X	0.0000		<input type="checkbox"/>	Sp

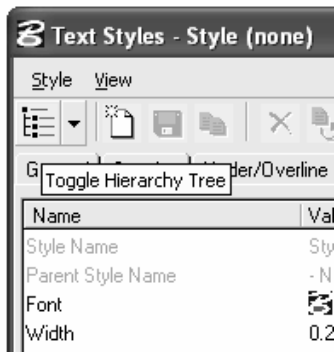
Parent Style Name – the parent style to which the “child” text style belongs.

Color Value – Allows you select a color for the text, but this option will be gray until you scroll down and turn the Color ON.

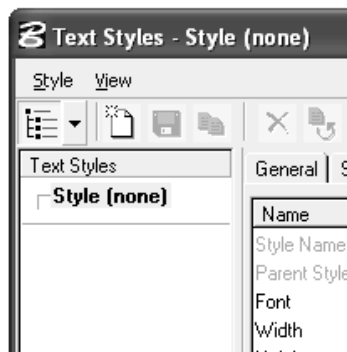
The image shows a 'Color Value' dialog box with a list of options on the left and a color palette on the right. The 'Color Value' is set to 2. Below the list, there are three 'X' characters demonstrating the effects of underlines and overlines. The first 'X' has a horizontal underline. The second 'X' has a horizontal overline. The third 'X' has both a horizontal underline and a horizontal overline.

Hierarchy Tree

The Hierarchy Tree list the text styles and child text style in the form of a tree. This option can be toggled On/Off by clicking the Toggle Hierarchy Tree.



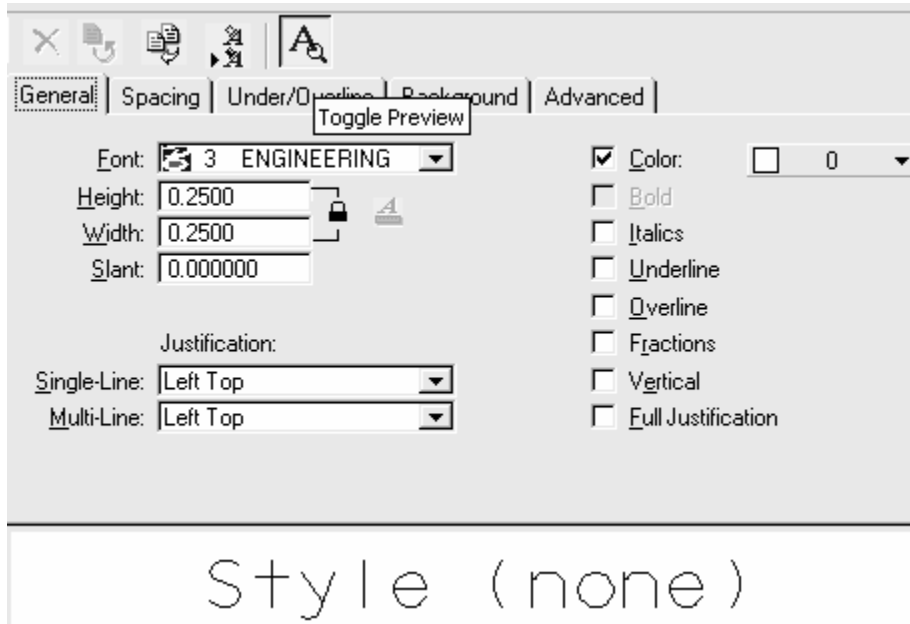
Off



On

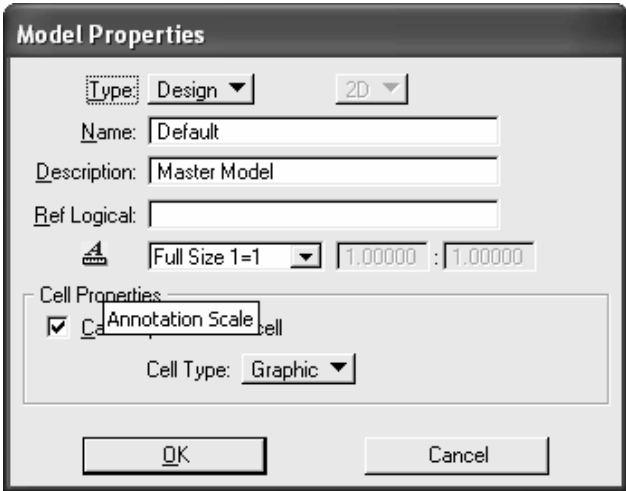
Preview

The preview window can also be toggled On/Off by selecting the Toggle Preview Icon.

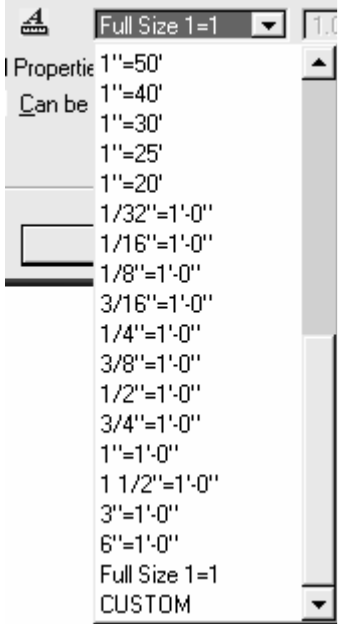


Setting the Annotation Scale

When creating a New Model you can set the Annotation Scale. Or if the Model already exists select the Edit Model Properties.



Select the scale of the final plot. By using this Annotation Scale feature, you later change the scale and update all the text.



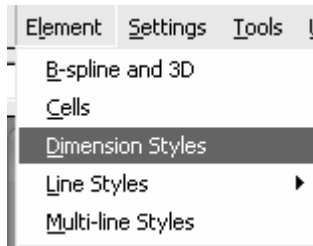
Annotation Scale Lock



For the Annotation Scale feature to work with the text, the Annotation Scale Lock must be On.

Dimension Styles

The dimension control commands allow the user to control certain parameters, which affect the manner in which dimensions are placed. They can be used to customize the dimension placement mode to suit a particular application or individual preference.



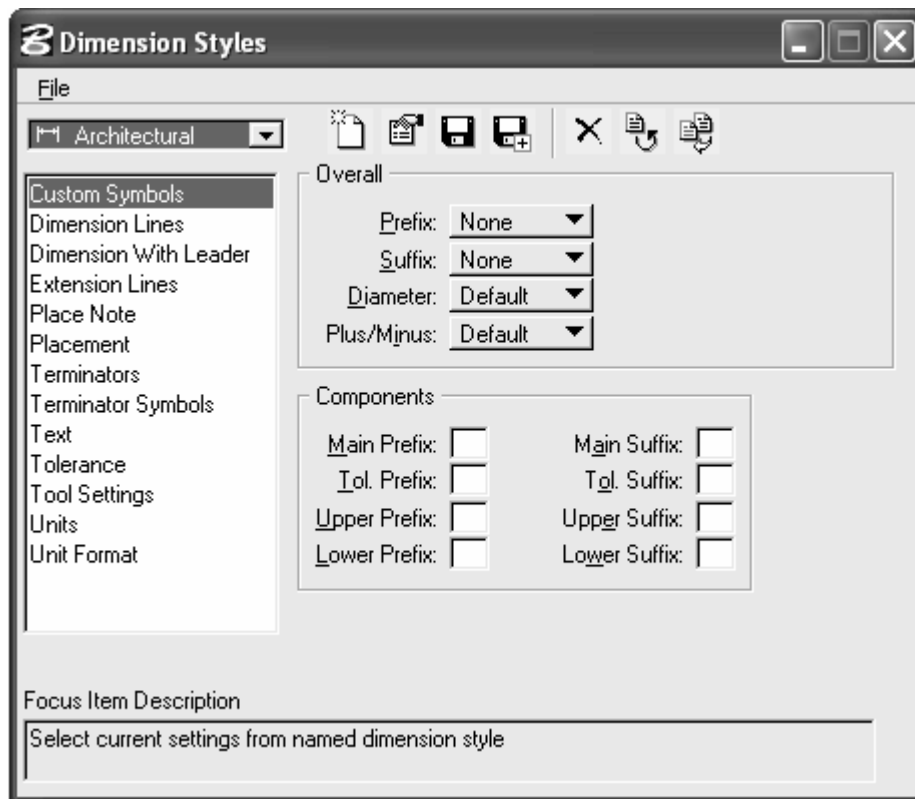
Operation

1. Select the Dimension dialog box from the Element pull-down menu.

This dialog box lets you control the placement of you dimensions. Lets go through each option:

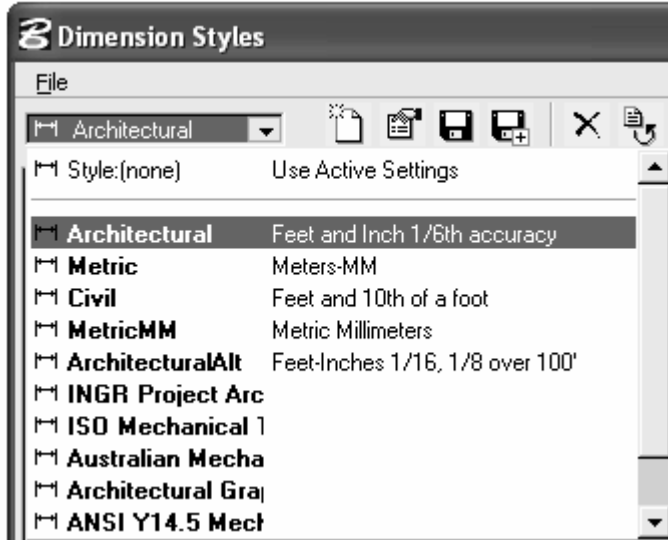
Dimension Style

You can access Dimensions from the **Element -> Dimensions** or by selecting the magnify glass on the dimension tools.



Select Dimension Style

You can click on the list to select the dimension style to be set.

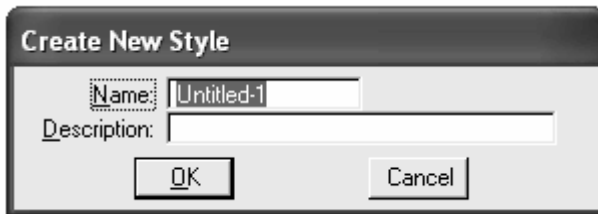


Create a New Dimension Style

To create a new Dimension Style select the **Create Dimension Style** icon on the Dimension Settings Dialog box.



This will open the **Create New Style** box. Enter the Name and Description, then click OK or hit the Enter on the keyboard.



Once the new style is created you can go ahead and set all the **Dimension Settings** for the new style.

Dimension Settings

Custom Symbols

Consists of controls that are used to specify characters from symbol fonts or cells as the following:

Prefixes or suffixes

Symbols for “diameter” and “plus-or-minus”

Overall

Prefix

Controls the specification of a custom prefix symbol. Options are:

- None - No prefix.
- Symbol – Character and Font Number
- Character – Cell name.

Suffix

Controls the specification of a custom suffix symbol.

- None - No prefix.
- Symbol – Character and Font Number
- Character – Cell name.

Diameter

Controls the specification of an alternate diameter symbol.

- Default – default diameter symbol.
- Symbol – Character and Font number.

Plus/Minus

Controls the specification of an alternate plus or minus symbol.

- Default – Default Plus/minus symbol.
- Symbol – Character and Font number.

Components

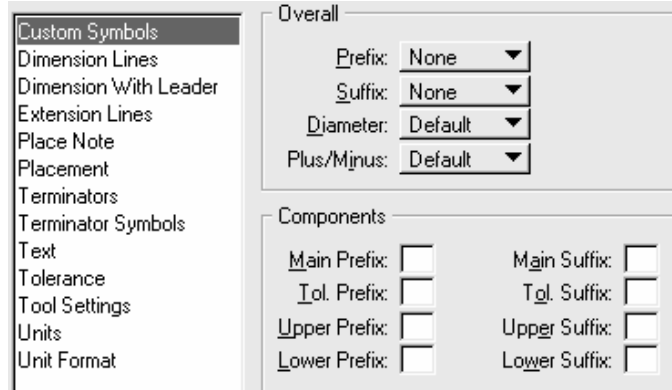
Contains fields that are used to specify additional (single) characters as dimension text prefixes and suffixes.

Main Prefix

Sets the prefix that is placed before a single line of dimension text.

Main Suffix

Sets the suffix that is placed after a single line of dimension text.



Tolerance Prefix

Sets the prefix that is placed before both lines of tolerancing text.

Tolerance Suffix

Sets the suffix that is placed after both lines of tolerancing text.

Upper Prefix

Sets the prefix that is placed before the primary (upper) dimension text in dual (for example, English/metric) dimensions.

Upper Suffix

Sets the suffix that is placed after the primary (upper) dimension text in dual (for example, English/metric) dimensions.

Lower Prefix

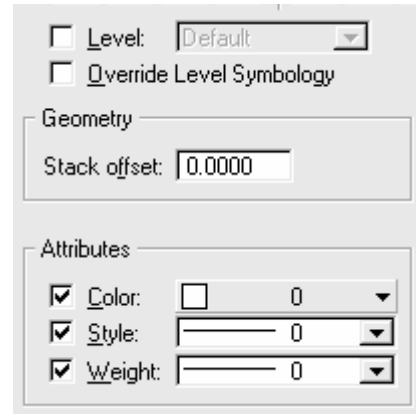
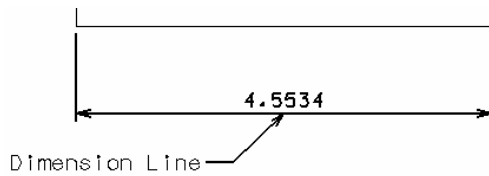
Sets the prefix that is placed before the secondary (lower) dimension text in dual (for example, English/metric) dimensions.

Lower Suffix

Sets the suffix that is placed after the secondary (lower) dimension text in dual (for example, English/metric) dimensions.

Dimension Lines

Settings that affect the appearance of Dimension Lines.



Level

With Level toggle OFF the dimension are placed on the active level. When the Level toggle is ON you can specify in which level that the dimension will be placed.

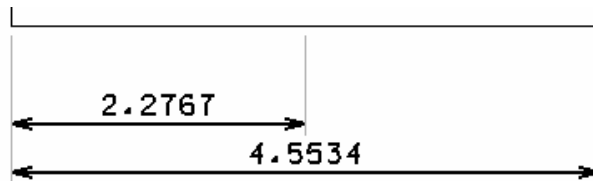
Override Level Symbology

This toggle will allow the Dimension settings to Override Level Symbology.

Geometry

Stack offset:

MicroStation calculates the stack offset, but if the user wants to set a constant value for the stack offset this is the field to change.



Attributes

Color:

With the Color option OFF, MicroStation uses the active color for placing the dimension lines. By toggling the Color option ON, MicroStation overrides the active color and places the dimension at this color.

Style:

With the Style option OFF, MicroStation uses the active style for placing the dimension lines. By toggling the Style option ON, MicroStation overrides the active style and places the dimension at this style.

Weight:

With the Weight option OFF, MicroStation uses the active weight for placing the dimension lines. By toggling the Weight option ON, MicroStation overrides the active weight and places the dimension at this weight.

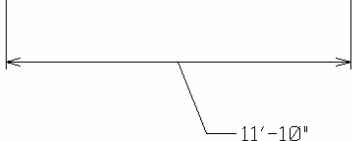
**TEXT STYLES &
DIMENSION STYLES**

Dimension With Leader

After placing a dimension, if you have the Allow Dimension With Leader option ON, you can use the Modify command to move the dimension text to a new location. Bentley refers to this feature as a Ball and Chain.

You can define the Type to be a Line, None or Curve.

You can select the termination to be used.



Allow Dimension With Leader

Type: Line ▼

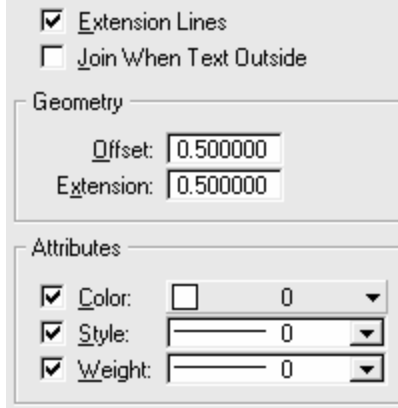
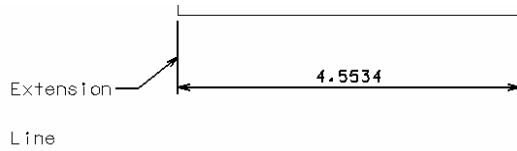
Terminator: — ▼

Alignment: Auto ▼

In-line Leader

Extension Lines

Sets the setting for extension lines.

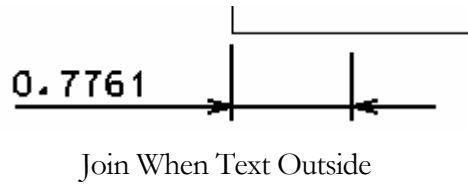


Extension Lines

With this toggle set ON, MicroStation draws the extension lines.

Join When Text Outside

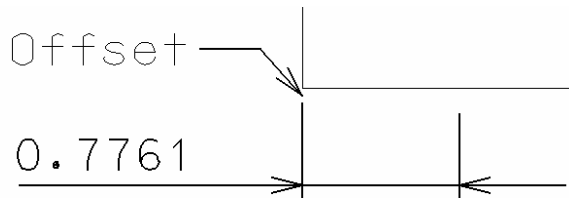
When the dimension being placed sometimes the dimension text is placed outside of the extension line. By toggling this option ON the dimension line will be drawn connecting the arrows.



Geometry

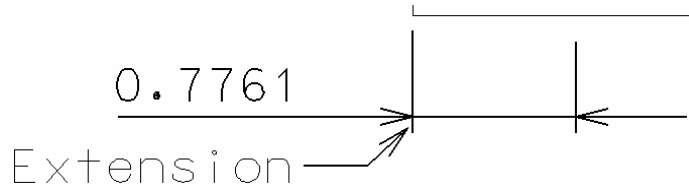
Offset

With the value set at .5, the Offset distance equals the Text Height times .5



Extension

With the value set at .5, the Extension of line past the dimension line is the Text Height times .5



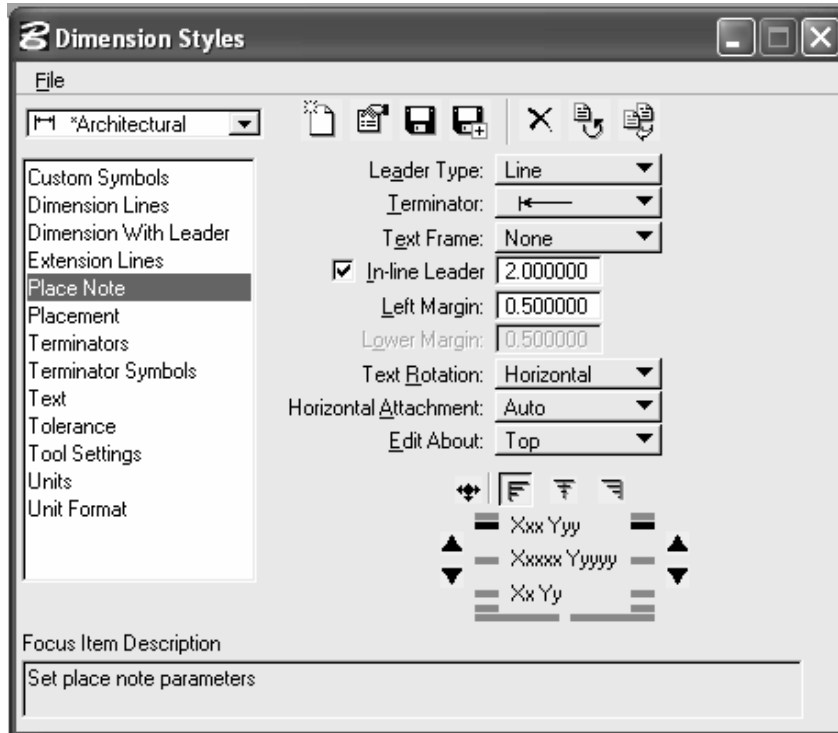
Attributes

Color:

Style:

Weight:

Place Note



Terminator – You can have a different terminator for the Place Note. Select the desired terminator or create a custom symbol from the Terminator Symbols.

Inline Leader - Toggles on the inline leader. Define the length in working units.

Left Margin - Defines the distance between the endpoint of the leader and the text. Define the Left Margin in working units.

Lower Margin – *Only active if Text Frame defined.* The Lower Margin defines the distance between the top and bottom margins of the text, and the top and bottom edges of the text frame.

Horizontal Attachment- Defines how the note text is attached to the leader.

- Left – the note text will attach to left side of the leader.
- Right - the note text will attach to right side of the leader.
- Automatic – the note will automatically be position to the left or right of the leader.

Edit About - Sets the position of the vertical origin to edit text about. If you need to see the Edit About point, turn on the Text Nodes in the view attributes box (CTL+B or Settings -> View Attributes).

- Top
- Center
- Bottom
- Dynamic

**TEXT STYLES &
DIMENSION STYLES**

Justification – Set the alignment of multiple lines of text. The preview graphics shows the justification settings.

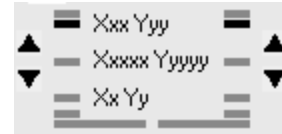


The top row of Justification buttons:

- Dynamic Justifies
- Left
- Center
- Right



The Leader Placement for Left, Center and Right:



- Leader at Top Text ← Leader at Top of Text
- Leader at Top Line ← Leader at Top of Line
- Leader at middle ← Leader at middle
- Leader at Bottom Line ← Leader at Bottom Line
- Leader at Bottom Text ← Leader at Bottom of Text
- Leader as underline ← Leader as Underline

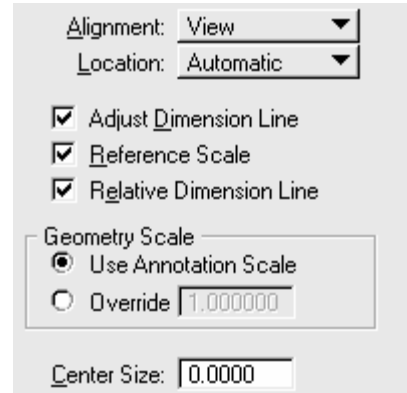
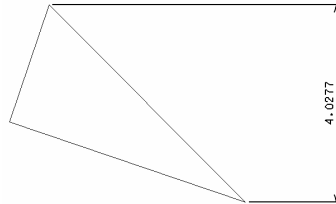
Placement

Setting that control the placement of the dimension.

Alignment

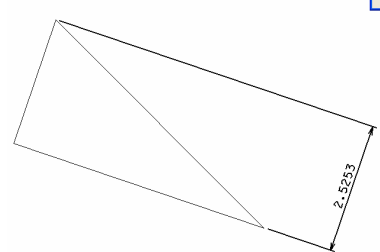
View

The dimension will be placed parallel to the view. No matter which view you are in, the dimension lines will always be parallel to the view.



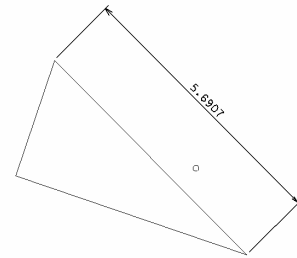
Drawing

The dimension will placed according to the design planes X and Y coordinates. For example if the drawing is rotated, the dimension will be parallel to the drawings X and Y value.



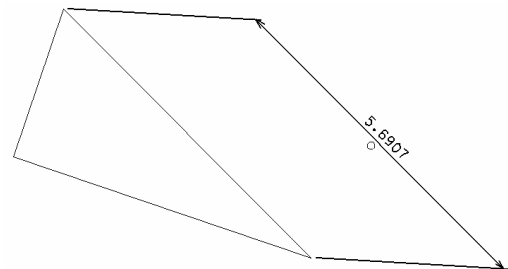
True

The dimension will be place perpendicular to the points chosen for the dimension.



Arbitrary

This setting will allow you to select the angle in which the dimension is to be placed. Great feature to use when dimensioning Isometric drawings.



Location

Controls the location of the dimension text.

Automatic

Dimension text is automatically placed according to the Justification setting.

Semi-Auto

Dimension text is automatically placed according to the Justification setting if the text fits between the extension lines. If the text does not fit, you position the text in response to a prompt.

Manual

The user is allowed to position dimension text in response to a prompt.

Adjust Dimension Line

By toggling on, the dimension line and text are dynamically moved and the extension lines are dynamically extended if there is insufficient space to fit the dimension text without overlaying existing dimension text.

Reference Scale

By toggling on, dimensions are placed using the units of the reference file that contains the element that is snapped to when the first **Data Point** is entered with the dimensioning tool.

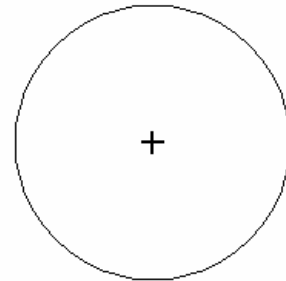
Relative Dimension Line

If on, a dimension line is relative, so that it moves when the base of the first extension line is moved; the length of the extension line remains constant.

If off, a dimension line stays in the same place when the first extension line is moved; the length of the extension line changes.

Center Size:

Sets the size, in working units, of the center mark in radial dimensions.



Terminators

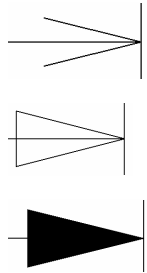
Orientation

Terminators:

- Automatic
- Inside
- Outside
- Reversed

Arrowhead:

- Open
- Closed
- Filled



Orientation	
Terminators:	Automatic
Arrowhead:	Open
Geometry	
Width:	1.000000
Height:	0.500000
Min. Leader:	2.000000
Attributes	
<input checked="" type="checkbox"/> Color:	0
<input checked="" type="checkbox"/> Style:	0
<input checked="" type="checkbox"/> Weight:	0

Geometry

Width:

The width is set in a multiple of the text height.

Height:

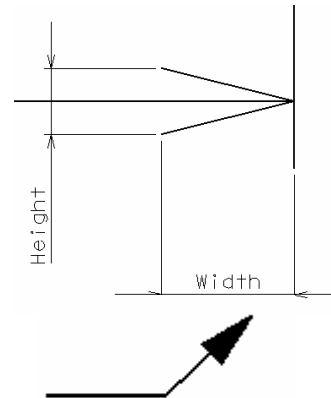
The height is set in a multiple of the text height.

Min. Leader:

The leader is set in a multiple of the text height.

Attributes

- Color
- Style
- Weight



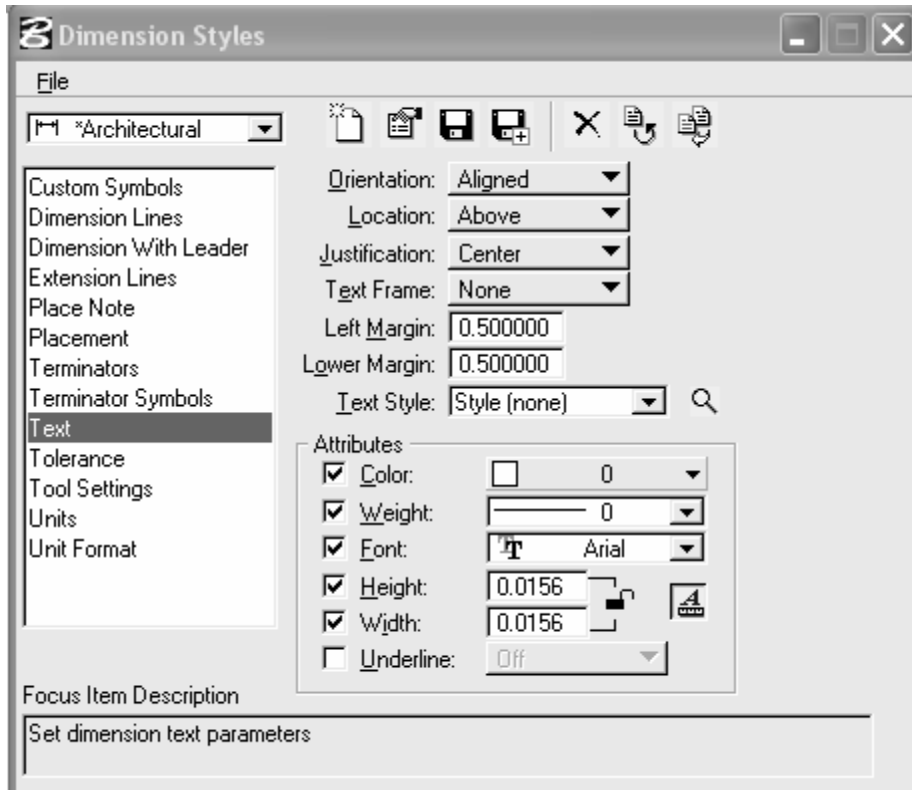
Text

Orientation has two options:

- Aligned – the text will be aligned with the dimension line.
- Horizontal – the text will be placed horizontal.

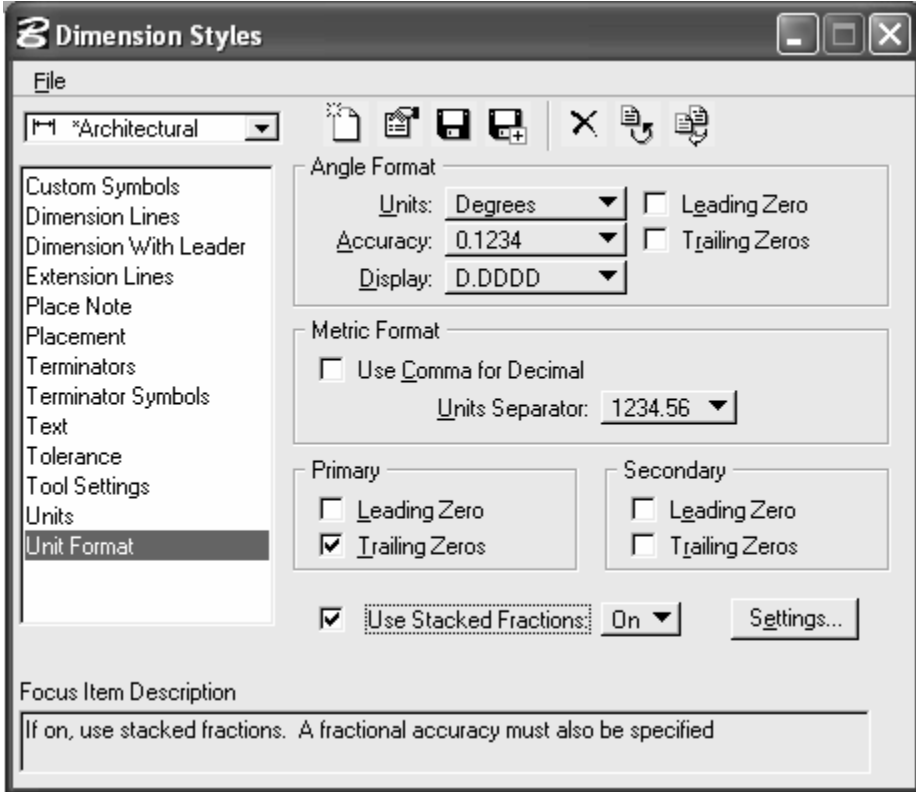
Annotation Scale Lock - On or Off.

Underline – To underline the dimension text.

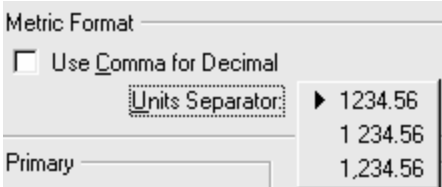


You can select a Text Style to set the dimension text. Using the magnify glass will open the Text Style dialog box.

Unit Format

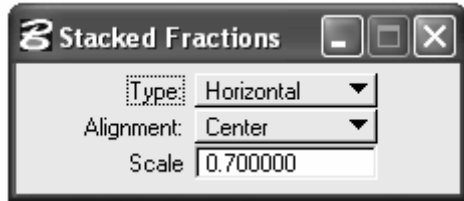


Unit Separator: Select how you want to separate the thousandths and millionths.



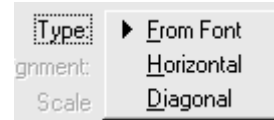
Use Stacked Fractions

Settings... Button opens the Stacked Fractions dialog box.



Type:

- From Font – Works with MicroStation fonts
- Horizontal – Stacks True Type fonts with horizontal line.
- Diagonal - Stacks True Type fonts with diagonal line.



Alignment – The Type must be set to Horizontal to select:

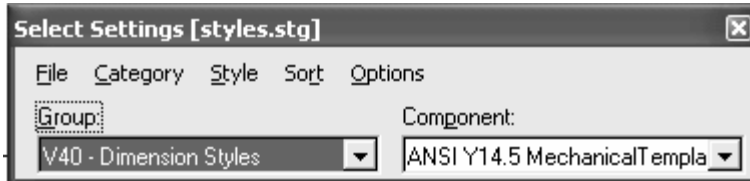
- Top $6\frac{1}{2}''$
- Center $6\frac{1}{2}''$
- Bottom $6\frac{1}{2}''$

Scale —The scale of the fraction.

Import to Active DGN -> Dimension Styles

If you have the dimensions per defined in your Settings -> Manage, you can import them into you active design.

Open **Settings -> Manage**

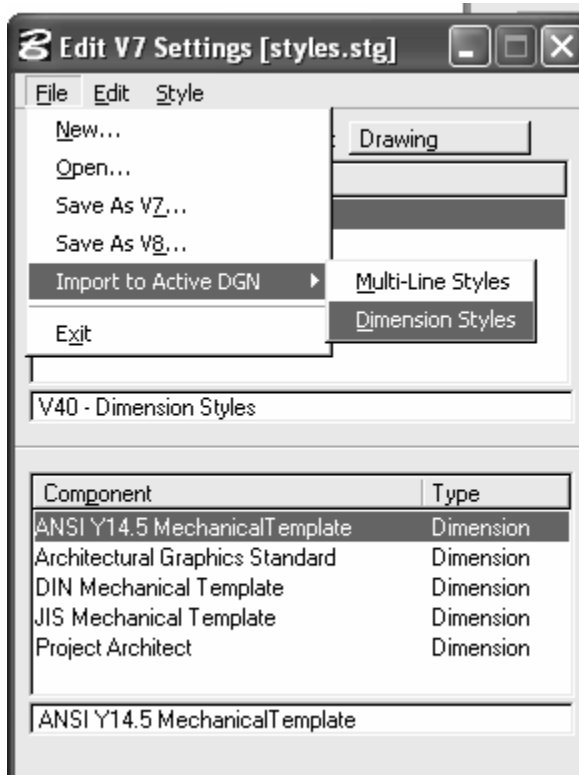


Select **File -> Edit**



From the Edit V7 Settings – select

File -> Import to Active DGN -> Dimension Styles



You will see the imported dimension styles added to the Dimension Styles dialog box.

