

Working with text

You can insert text into your drawing and control its appearance, allowing you to provide additional information for your BtoCAD drawings. This section explains how to:

- Create line text.
- Create paragraphs.
- Create text styles.
- Format text.
- Change text.
- Change paragraph text.
- Use an alternate text editor.
- Working with text written in different languages.

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Creating line text

When you create text, you end each line of text by pressing Enter. Each line of text is created as a separate entity that you can modify.

To create text

- 1 Do one of the following:
 - Choose Draw > Text > Text.
 - On the Text and Style toolbar, click the Text tool 
 - Type *dtext* and then press Enter.
- 2 Specify the insertion point for the first character.
- 3 Specify the height of the text.
- 4 Specify the text rotation angle.
- 5 Type the text, and then press Enter at the end of each new line.
- 6 To complete the command, press Enter again.

TIP *If you've already created text and want new text to appear immediately below the previous text, choose Insert > Text. When prompted for an insertion point, press Enter. The new text will keep the same height and rotation angle as the previous text.*

Creating paragraph text

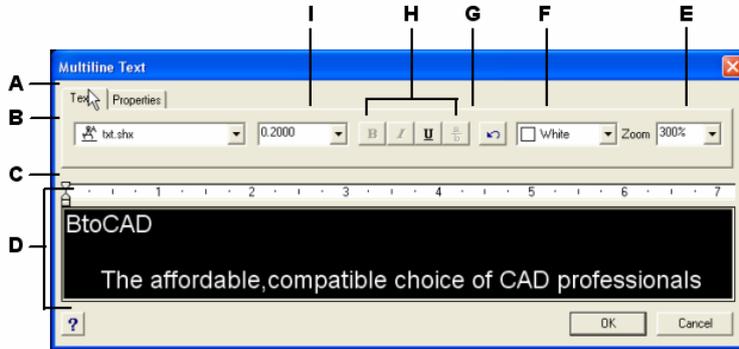
Paragraph text consists of one or more lines of text or paragraphs that fit within a boundary width that you specify. Each paragraph text entity you create is treated as a single entity regardless of the number of individual paragraphs or lines of text it contains.

When you create paragraph text, you first determine the paragraph's boundary width by specifying the opposite corners of a rectangle. The paragraph text automatically wraps so that it fits within this rectangle. The first corner of the rectangle determines the default attachment point of the paragraph text. You can change the location of the attachment point in reference to the rectangle, and you can determine the direction in which text flows within the rectangle. You can also select the text and paragraph format, text style, text height, and the rotation angle of the entire paragraph text entity.

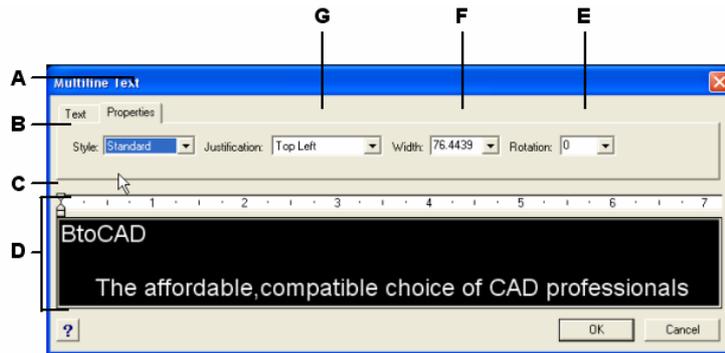
To create paragraph text

- 1 Do one of the following:
 - Choose Draw > Text > Multiline Text.
 - On the Text and Style toolbar, click the Multiline Text tool  ↖
 - Type *mtext* and then press Enter.
- 2 Select the first corner of the text area.
- 3 In the MTEXT prompt box, select the properties you want to change, or proceed directly to step 4. You can select these properties in steps 7 and 8.
- 4 Select the second corner of the text area.
- 5 In the Multiline Text dialog box, click the Text tab.
- 6 In the window, type the text you want.
To create paragraphs, press Enter and continue typing.
- 7 Make any selections or changes you want to the following:
 - Font, text height, bold, italic, underline, and color.
 - Indents on the ruler. Move the upper left arrow to define the first line indent, move the lower left arrow to define the paragraph indent, and move the right arrow to define the right indent.
 - Tabs on the ruler. Click the ruler to create tabs, move any tab marker to modify its location, and drag any tab off the ruler to delete it.Your selections affect highlighted text, or if no text is highlighted, new text when you type it.
- 8 Click the Properties tab, and make selections or changes you want to the text Style, Justification, Width, and Rotation.
- 9 Click OK.

TIP You can paste text from the Clipboard into the Multiline Text dialog box.



- A... Click to view and select text attributes.
- B... Select the text font.
- C... Mark the first line indent, paragraph indent, right indent, and tabs.
- D... Type and select text.
- E... Select or type a zoom magnification.
- F... Select BYBLOCK, BYLAYER, the color of your choice, or choose Select Color to select from additional colors.
- G... Click to undo the previous action.
- H... Click to bold, italicize, and underline text.
- I... Select or type the text height.



- A... Click to view and select text style and text box properties.
- B... Select a text style.
- C... Mark the first line indent, paragraph indent, right indent, and tabs.
- D... Type and select text.
- E... Select or type the text box angle.
- F... Select or type the text width.
- G... Select the text box justification.

Working with text styles

When you add text to a drawing, it uses the current text style. Text style determines the font, size, angle, orientation, and other characteristics.

Every drawing has a default text style, named Standard, which initially uses the *icad.fnt* font. You cannot delete the Standard style, but you can rename it or modify it. You can change the font, the size of the font, and the obliquing angle applied to it. If you change the font or orientation of an existing style, all existing text entities created using that style are automatically updated to reflect the new font or orientation. Changing any other characteristic has no effect on existing text. You also can create and use an unlimited number of additional text styles.

The text style determines the characteristics shown in the following table.

Style characteristics

Characteristic	Default	Description
Style name	Standard	The name of the style, up to 31 characters.
Font file	icad.fnt	The font file on which the style is based.
Text height	0	The character height. A value of 0 prompts for text height upon insertion.
Width factor	1	The horizontal expansion or compression of the text. Values less than 1 compress the values greater than 1 expand the text.
Obliquing angle	0	The slant of the text, in degrees. Negative values slant the text to the left; positive values slant the text to the right.
Backward	No	Determines whether text appears backward.
Upside down	No	Determines whether text appears upside down.
Vertical	No	Determines whether text has a vertical orientation.

To create a text style

- 1 Do one of the following:
 - On the Text and Style toolbar, click the Explore Text Styles tool 
 - Type *expfonts* and then press Enter.
- 2 Choose Format > Text Style.
- 3 Type a new text style name, or press Enter to accept the default name.
- 4 Under Text Font, select the name, style, and language of the font you want to use.
- 5 Under Text Measurements, enter the Fixed Text Height, Width Factor, and Oblique Angle measurement.
- 6 Under Text Generation, select the check boxes you want to indicate the direction for printed text to

appear.

- 7 Close the Styles dialog box, then close the Btocad Explorer dialog box.
- 8 To begin using the new style, choose Draw > Text > Text.

Formatting text

When you create text, you choose the text style and set the alignment. The style determines the font characteristics for the text. For line text, the alignment determines how the text aligns with the text insertion point. For paragraph text, the alignment determines the location of the attachment point in relation to the paragraph text boundary and the direction in which text flows within the boundary.

Setting the line text style

You can set the text style before you specify the insertion point. You select the text style by typing the name of a previously defined style.

To specify a line text style

- 1 Do one of the following:
 - Choose Draw > Text > Text.
 - On the Text and Style toolbar, click the Text tool .
 - Type *dtext* and then press Enter.
- 2 In the prompt box, choose Use Defined Style.
- 3 Type the name of a previously defined text style, and then press Enter. To display a list of available text styles, type a question mark (?), and then press Enter.
- 4 Specify the text insertion point.
- 5 Specify the text height.
- 6 Specify the rotation angle.
- 7 Type the text line, and then press Enter.
- 8 To complete the command, press Enter again.

Setting the paragraph text style

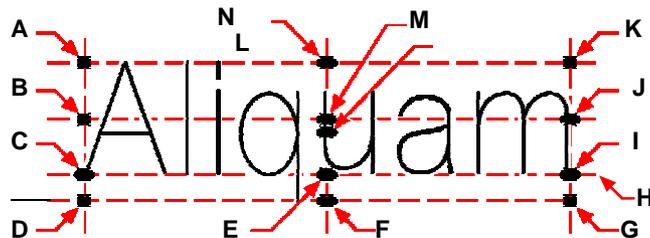
You can set the paragraph text style before you specify the insertion point. You select the text style by typing the name of a previously defined style.

To specify a paragraph text style

- 1 Do one of the following:
 - Choose Draw > Text > Multiline Text.
 - On the Text and Style toolbar, click the Multiline Text tool 
 - Type *mtext* and then press Enter.
- 2 Specify the first point of the Multiline Text box.
- 3 In the prompt box, choose Text Style.
- 4 Type the name of a previously defined text style, and then press Enter.
- 5 Specify the text height.
- 6 Specify the rotation angle.
- 7 Specify the opposite corner of the Multiline Text box.
- 8 Type the text, and then press Enter.
- 9 To complete the command, press Enter again.

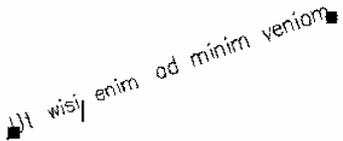
Setting the line text alignment

When you create text, you can set the text alignment before you specify the insertion point. You set the alignment by choosing it in the prompt box. By default, text is left justified. You can align text at the left, center, or right and at the top, middle, or base-line of the text or at the bottom of descending letters.

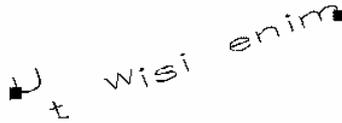


- | | |
|------------------------|------------------------|
| A Top left | H Baseline |
| B Middle left | I Right |
| C Left | J Middle right |
| D Bottom left | K Top right |
| E Center | L Middle |
| F Bottom center | M Middle center |
| G Bottom right | N Top center |

You can also align text so that it fits or aligns between two points. The Align option creates text that scales up or down while maintaining a constant height/width ratio; the Fit option expands or compresses the text to fit between the two points.



Text aligned between two points maintains a constant height/width ratio.



Text fit between two points expands or compresses to fit.

To specify the line text alignment

- 1 Do one of the following:
 - Choose Draw > Text > Text.
 - On the Text and Style toolbar, click the Text tool .
 - Type *dtext* and then press Enter.
- 2 In the prompt box, choose an alignment option, or choose Justification Options to display all the justification options.
- 3 Specify the text insertion point, and then continue creating the line text.

Setting the paragraph text alignment

When you create paragraph text, you can set the text alignment by specifying the attachment point location in relation to the paragraph text boundary and the direction in which text flows within the boundary. You can set the paragraph text alignment either in the prompt box

displayed after you specify the first corner of the paragraph text boundary or from the Multiline Text dialog box. You can specify the attachment point at the top left, top center, top right, middle left, middle center, middle right, bottom left, bottom center, or bottom right. The paragraph text can flow left to right, right to left, top to bottom, or bottom to top.

Including special text characters

You can use control codes to overscore or underscore text or to include special characters. Both overscore and underscore can be active at the same time. To include control codes, as you type text, type two percent symbols (%%) followed by the special control code or character. A single percent sign is treated as a normal text character.

A triple-percent control code is provided for those instances where a control-code sequence must follow a percent sign in the text.

Special text characters

Control code	Function
%%o	Toggles overscore mode on and off.
%%u	Toggles underscore mode on and off.
%%d	Draws a degree symbol (°).
%%p	Draws the plus-or-minus symbol (±).
%%c	Draws the circle diameter symbol (Ø).
%%%	Forces a single percent sign.
%% <i>nnn</i>	Draws special character number <i>nnn</i> .

Ut wisi enim° ad± minim Ø veniam

Text created using special text characters: Ut wisi %%uenim%%d ad%%p%%u minim %%c %%oveniam.

Changing text

Changing line text

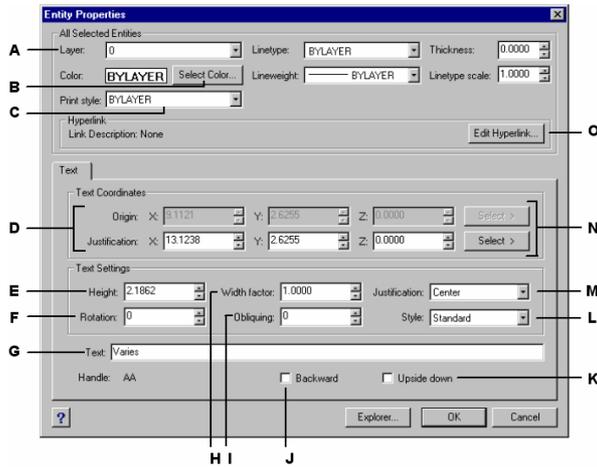
You can edit and modify the text as you would any other drawing entity. That is, you can delete, move, rotate, and scale text.

To edit text

- 1 Do one of the following:
 - Choose Modify > Edit Text.
 - On the Text and Style toolbar, click the Edit Text tool 
 - Type *ddedit* and then press Enter.
- 2 Select the text entity.
- 3 In the Text field, edit the text, and then click OK.

To change text properties

- 1 Do one of the following:
 - Choose Modify > Edit Text.
 - On the Text and Style toolbar, click the Edit Text tool 
 - Type *ddedit* and then press Enter.
- 2 Select the text entity.
- 3 Under Text Settings, change the text properties you want.
- 4 Click OK.



- | | |
|---|--|
| A Click to change layer. | H Specify the width factor. |
| B Click to change color. | I Specify the obliquing angle. |
| C Click to change print style (available only for drawings that use named print style tables). | J Select to insert backward text. |
| D Specify new text insertion point or justification. | K Select to insert upside-down text. |
| E Specify text height. | L Click to change text style. |
| F Specify text rotation angle. | M Click to change text justification. |
| G Edit the existing text. | N Click to select a new text insertion point. or ustification |
| | O Click to attach a hyperlink to the text. |

hanging paragraph text

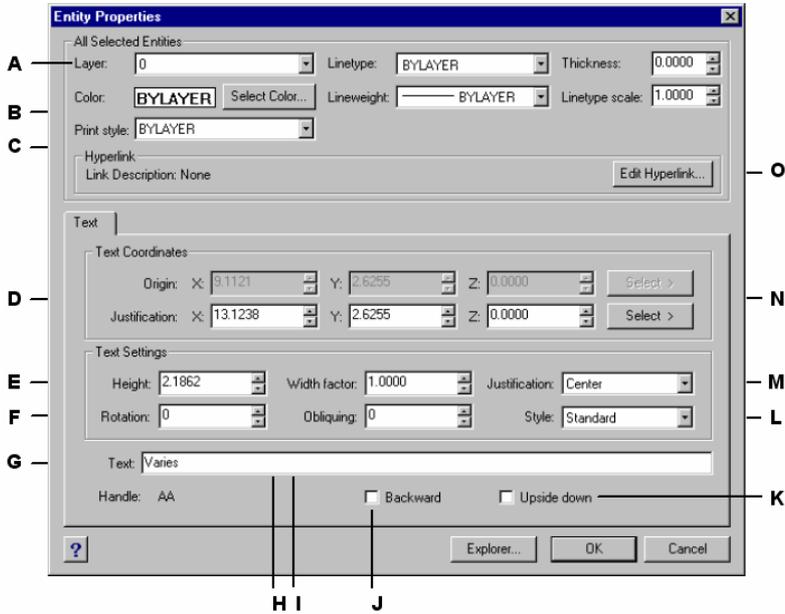
You can modify the text as you would any other drawing entity. That is, you can delete, move, rotate, and scale text.

To edit paragraph text

- 1 Do one of the following:
 - Choose Modify > Edit Text.
 - On the Text and Style toolbar, click the Edit Text tool 
- 2 Select the text entity.
- 3 Edit the text in the Contents field of the Entity Properties dialog box.
- 4 To apply font style changes to the text, click Full Editor.
- 5 Click OK.

To change paragraph text properties

- 1 Do one of the following:
 - Choose Modify > Edit Text.
 - On the Text and Style toolbar, click the Edit Text tool 
- 2 Select the text entity.
- 3 Change the text properties you want under the Text section of the Entity Properties dialog box.
- 4 To apply font style changes to the text, click Full Editor.
- 5 Click OK.



- A Click to change layer.
- B Click to change color.
- C Click to change print style (available only for drawings that use named print style tables).
- D Specify new attachment point.
- E Specify text height.
- F Specify width of text boundary rectangle.
- G Specify text rotation angle.
- H Edit the existing text.
- I Click to change font styles.
- J Click to change text style.
- K Click to change direction in which text flows.
- L Click to change attachment point in relation to text boundary rectangle.
- M Click to select a new attachment point.
- N Click to attach a hyperlink to the text.

Using an alternate text editor

BtoCAD includes a built-in text editor for creating paragraph text using the Multi-line Text command. You can also specify an alternate text editor for the Multiline Text command.

Selecting an alternate text editor

Before you can use an alternate text editor, you must specify the editor by setting the MTEXTED system variable.

To select an alternate text editor

- 1 Type *mtextd* and then press Enter.
- 2 Enter the path and name of the executable file for the text editor you want to use to create or edit multiline text. For example, to use Microsoft® Wordpad, you would type something similar to the following (adjusting the path name as necessary):

C:\Program Files\Windows\Accessories\Wordpad.exe

Creating paragraph text in an alternate text editor

After you set up BtoCAD to use an alternate text editor, you can start using it to include text in your drawings.

To use an alternate text editor

- 1 Do one of the following:
 - Choose Draw > Text > Multiline Text.
 - On the Text and Style toolbar, click the Multiline Text tool 
 - Type *mtext* and then press Enter.
- 2 Select the first and second corners of the text area.

- 3 In the Multiline Text dialog box, click the Text tab.
- 4 In the window, type the text you want, using the special characters from the table shown next to achieve special formatting. Enter \P to end a paragraph and start a new paragraph on the next line. For example, to use an alignment value of 1 and stack two numbers to display them as a fraction:


```
{\A1;\S1/2;}\P
```
- 5 When your text is complete, save the changes and exit the text editor.

Special formatting characters

Format characters	Function
\O...\o	Toggles overscore mode on and off.
\L...\l	Toggles underscore mode on and off.
\~	Inserts a nonbreaking space.
\	Inserts a backslash.
\{...\}	Inserts an opening and closing brace.
\C <i>value</i> ;	Sets the color to a specified value.
\File <i>name</i> ;	Sets the font based on a specified font file name.
\H <i>value</i> ;	Sets the text height to a specified value.
\H <i>valuex</i> ;	Sets the text height to a multiple of the current text height.
\S...^...;	Stacks the subsequent text at the /, #, or ^ symbol.
\T <i>value</i> ;	Adjusts the space between characters, from 0.75 to 4 times.
\Q <i>angle</i> ;	Changes obliquing angle.
\W <i>value</i> ;	Changes width factor to produce wide text.
\A	Sets the alignment value.
\P	Ends paragraph.
\p[i],[l],[tX1,X2,...,X32]	Formats paragraph: i = first line indent; l = paragraph offset; t = tab positions.

Working with text written in different languages

You can include text in your drawings that is written in different languages.

Using Unicode characters

BtoCAD supports the Unicode character encoding standard, which enables you to display and write text in different languages using different letters. Unicode fonts contain many more characters than typically defined in a system.

Special Unicode characters	
Control code	Function
<code>\U+00B0</code>	Draws a degree symbol (°).
<code>\U+00B1</code>	Draws the plus-or-minus symbol (±).
<code>\U+2205</code>	Draws the circle diameter symbol (∅).

For more details about using special characters, see “Including special text characters” on page 285 in this chapter. You can also use a different text editor; see “Using an alternate text editor” on page 289 in this chapter.

Setting the language for drawings

The language used for text in your drawings typically depends on the location used by your operating system. Depending on your location, you may want to specify a different language for a drawing, for example, if you live in a country where several languages are used and your text differs from the default language used by your operating system.

You may also receive a drawing that contains text written in a different language. You can override your language setting for that drawing by choosing the other language so the text displays properly.

To set the language for a drawing

- 1 Enter `setlang` and then press Enter.

- 2 In Drawing Code Page, select the language for the current drawing.
- 3 Select one of the following options:
 - Always open when a drawing file is opened — Open the Set Language dialog box every time a drawing is opened.
 - Only open when drawing and system code pages differ — Open the Set Language dialog box only when the operating system language is different than the drawing language.
 - Automatically convert drawings — Do not open the Set Language dialog box and convert the drawing language automatically whenever a drawing is opened.
- 4 If you selected to automatically convert drawings, select one of the following:
 - Use system code page — When converting drawings automatically, use the language defined for the operating system (the SYSCODEPAGE system variable setting).
 - Use drawing code page — When converting drawings automatically, use the language defined for the drawing (the DWGSYSCODE system variable setting).
 - Use alternate code page — When converting drawings automatically, use the language that you select.