# AutoCAD and Its Applications BASICS Supplemental Material-Chapter 10 

## Isometric Text

Isometric text is parallel to and aligns with a corresponding isometric plane. See Figure 10A-1. Text added to horizontal and vertical isometric planes has a $30^{\circ}$ or $-30^{\circ}$ oblique angle, depending on the application. Before adding isometric text, establish text styles to preset the necessary oblique angles. Create a text style named Isometric 30, for example, and enter 30 in the Oblique Angle: text box of the Text Style dialog box. Create another text style named Isometric -30, and enter -30 in the Oblique Angle: text box.

You can draw isometric text using the MTEXT or TEXT command. You must rotate the text $30^{\circ},-30^{\circ}\left(330^{\circ}\right), 90^{\circ},-90^{\circ}\left(270^{\circ}\right), 150^{\circ}$, or $210^{\circ}$, depending on the drawing application and the isometric plane that is parallel to the text. When creating mtext, pick the first corner of the text boundary, and then use the Rotation option to specify the angle of the text boundary. Pick the second corner and begin typing. When creating single-line text, set the rotation angle at the Specify rotation angle of text <0>: prompt. Rotate existing text using an editing command. Figure 10A-2 shows examples of oblique angles and text rotation necessary to create isometric text.

Figure 10A-1.
An example of an isometric assembly drawing with isometric text.


Figure 10A-2.
Use a text style with a $30^{\circ}$ or $-30^{\circ}$ obliquing angle, and rotate the text object to achieve the correct isometric text.


AutoCAD does not actually create isometric text objects. The MTEXT and TEXT commands do not use isometric text editors or text boundaries, even if you set the isometric snap mode. See Figure 10A-3. Therefore, you must be creative and use available text settings to draw effective isometric text. You may find that the TEXT command is often more useful than the MTEXT command, even when you are adding multiple lines of text, because you can control individual lines of text without tedious paragraph formatting.

## NOTE

When adding text to a nonisometric surface, you must calculate an oblique angle other than the $30^{\circ}$ or $-30^{\circ}$ appropriate for text on a horizontal or vertical isometric plane. See Figure 10A-4.

Figure 10A-3.
Text commands use a nonisometric format. This often makes it difficult to create and locate isometric text accurately.


Mtext


Single-Line Text

Figure 10A-4.
Constructing text on a nonisometric plane. Remember that text is always parallel to and aligned with the surface.


## Activity 10A-1

1. Start a new drawing from scratch or use a template of your choice. Save the drawing as ACT10A-1.
2. Create a text style named ISOMETRIC 30 that uses the Arial font and $30^{\circ}$ oblique angle. Create another text style named ISOMETRIC -30 that uses the Arial font and $-30^{\circ}$ oblique angle. Create another text style named ISOMETRIC -11 that uses the Arial font and $-11^{\circ}$ oblique angle.
3. Draw the $2 \times 2 \times 2$ cubes shown in Figure 10A-2. Add the text shown in Figure 10A-2 using the TEXT command and a $.1^{\prime \prime}$ text height.
4. Draw the $1 \times 2 \times 2$ wedge shown in Figure 10A-4. Add the text shown in Figure 10A-4 using the TEXT command and a $.1^{\prime \prime}$ text height. Do not dimension the drawing.
5. Resave and close the file.
