Creating and Editing Plot Style Tables

The plot style tables supplied with AutoCAD are appropriate for many plotting applications. Use the monochrome.ctb or monochrome.stb file to plot all objects in the drawing in black and white. Use the Grayscale.ctb or Autodesk-MONO.stb file to plot the drawing using shades of gray. Use one of the screening CTB files or the Autodesk-Color.stb file to plot the drawing using faded colors. If the supplied plot style tables do not meet your needs, create new plot style tables and edit plot style properties.

Creating New Plot Style Tables

To create a new plot style table from the **Page Setup** dialog box, select the **New…** option from the drop-down list in the **Plot style table (pen assignments)** area. The type of plot style table specified for the current drawing determines the new plot style table type. If the drawing uses color-dependent plot style tables, the **Add Color-Dependent Plot Style Table** wizard appears when you pick the **New…** option. This wizard guides you through the process of creating a color-dependent plot style table. If the drawing uses named plot style tables, the **Add Named Plot Style Table** wizard appears when you pick the **New…** option. This wizard guides you through the process of creating a named plot style table.

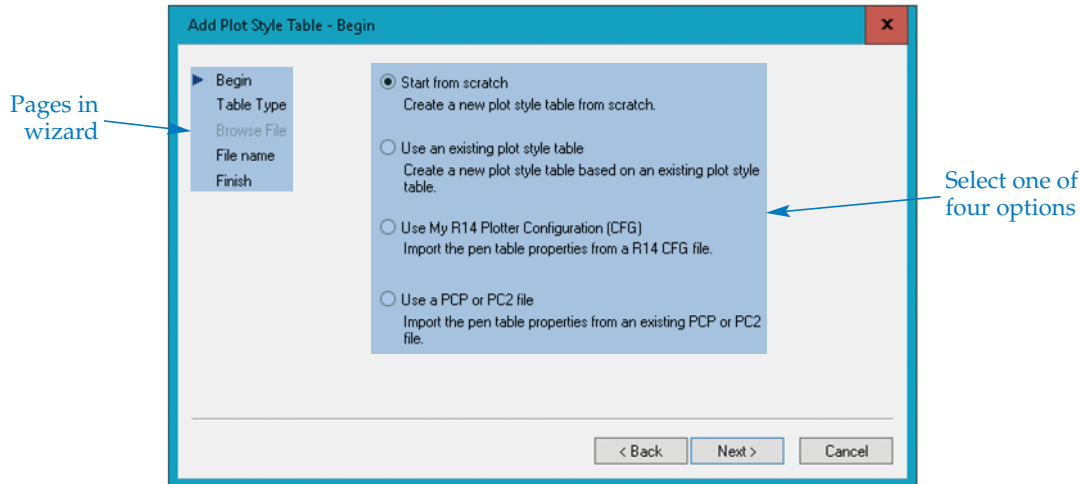## Using the Add-a-Plot Style Table Wizard

You can also create color-dependent or named plot style tables using the **Add-a-Plot Style Table** wizard. To access the **Add-a-Plot Style Table** wizard outside of the **Page Setup** dialog box, double-click on Add-A-Plot Style Table Wizard in the **Plot Styles** window.

Begin Page

The first page of the **Add-a-Plot Style Table** wizard provides introductory information. Pick the **Next** button to display the **Begin** page. See **Figure 28A-1**. Choose the **Start from scratch** radio button to create a new plot style table from scratch. To base the new plot style table on an existing plot style table, pick the **Use an existing plot style table** radio button. The settings in the existing file are used as a template for constructing the new plot style table. Select the **Use My R14 Plotter Configuration (CFG)** radio button to copy the pen assignments from an acad14.cfg file and use the settings as a template for the new plot style table. Pick the **Use a PCP or PC2 file** radio button to use pen assignments stored in PCP or PC2 files from versions of AutoCAD prior to AutoCAD 2000. The settings are used as a template for the new plot style table. After you select the appropriate **Begin** page option, pick the **Next** button.

Figure 28A-1.
The **Begin** page provides options for creating a new plot style table.


Pages in wizard

Select one of four options

The selection you make on the **Begin** page determines the additional pages and options displayed in the wizard. Follow the prompts given on each page to create a plot style table. This supplement focuses on the process of creating a plot style table from scratch. Building a plot style table from existing content such as another plot style table, the acad14.cfg file, or a PCP or PC2 file requires that you enter the existing data. Otherwise, the wizard pages are similar to those displayed when you create a plot style table from scratch.

Pick Plot Style Table Page

If you select the **Start from scratch** radio button, the **Pick Plot Style Table** page appears when you pick the **Next** button. See **Figure 28A-2**. Select the radio button that corresponds to the type of plot style table to create. The page does not appear if you select the **Use an existing plot style table** radio button on the **Begin** page, because selecting an existing plot style table file automatically defines the plot style table type.

Figure 28A-2.
Use the **Pick Plot Style Table** page to create a color-dependent or named plot style table.

Select plot style table type
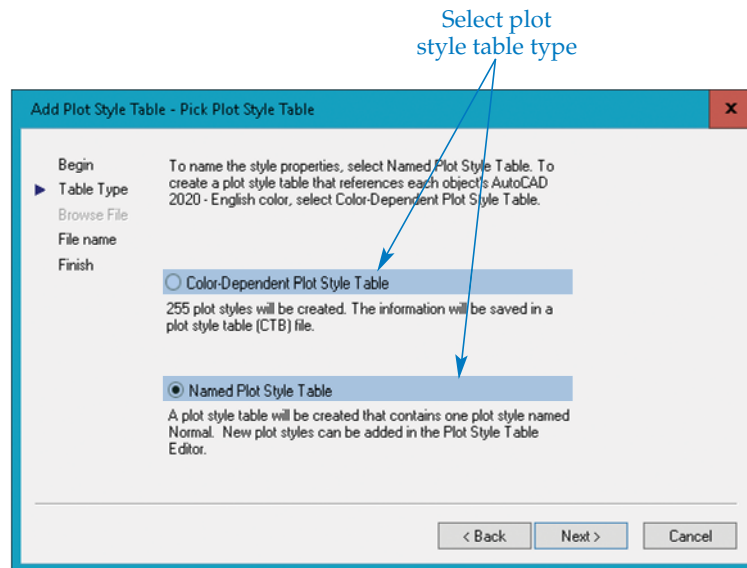
File Name and Finish Pages

After you choose the appropriate type of plot style table, pick the **Next** button to advance to the **File name** page. See **Figure 28A-3**. Type a name for the plot style table and pick the **Next** button to advance to the **Finish** page. See **Figure 28A-4**. Pick the **Plot Style Table Editor…** button to define plot styles using the **Plot Style Table Editor** dialog box. This is the same dialog box used to edit existing plot style tables and is described in the next section. Pick the **Finish** button to complete the process of creating the new plot style table. The new plot style table is available for all drawings that use the corresponding plot style table type.


NOTE

The **Add Color-Dependent Plot Style Table** and **Add Named Plot Style Table** wizards, displayed when you pick the **New…** option from the drop-down list in the **Plot style table (pen assignments)** area of the **Page Setup** dialog box, are similar to the **Add-a-Plot Style Table** wizard. However, they do not give you the option to select a plot style table type or create the new table based on an existing table.

Figure 28A-3.
Enter a name for the plot style table on the **File name** page.

Enter name for plot style table

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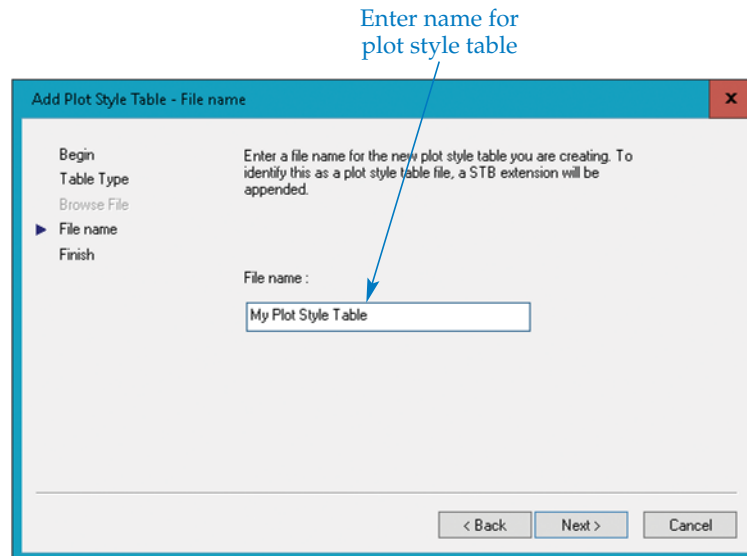
Figure 28A-4.
The **Finish** page allows you to edit the plot style table and finish the process of building the new table.

Pick to edit plot style table

Pick to exit wizard
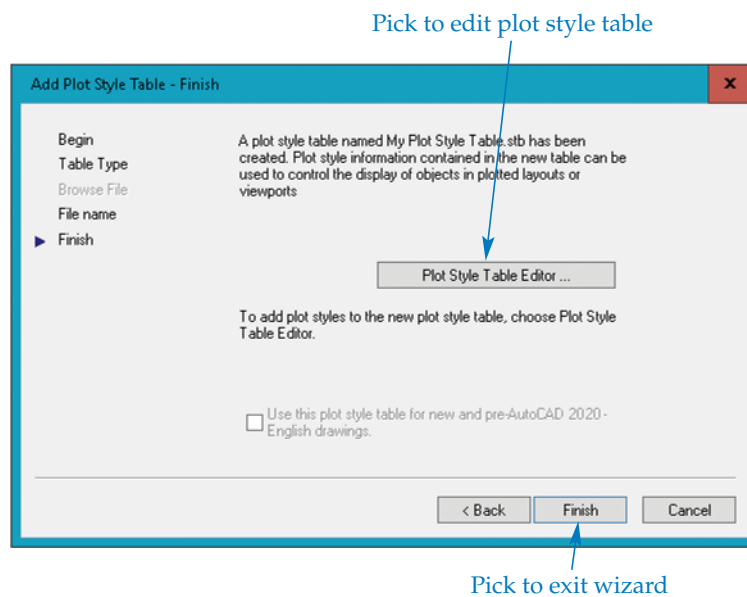
Working with Plot Style Tables

Use the **Plot Style Table Editor** dialog box to edit plot style tables and the plot styles contained in the tables. See **Figure 28A-5**. Access the **Plot Style Table Editor** dialog box while creating a new plot style table by picking the **Plot Style Table Editor...** button on the **Finish** page of one of the plot style table wizards. This allows you to define the plot style properties of the new plot style table before using the table.

Figure 28A-5.
Information about a plot style table is located on the **General** tab of the **Plot Style Table Editor** dialog box.

Plot style table being edited

Enter a description for the plot style table
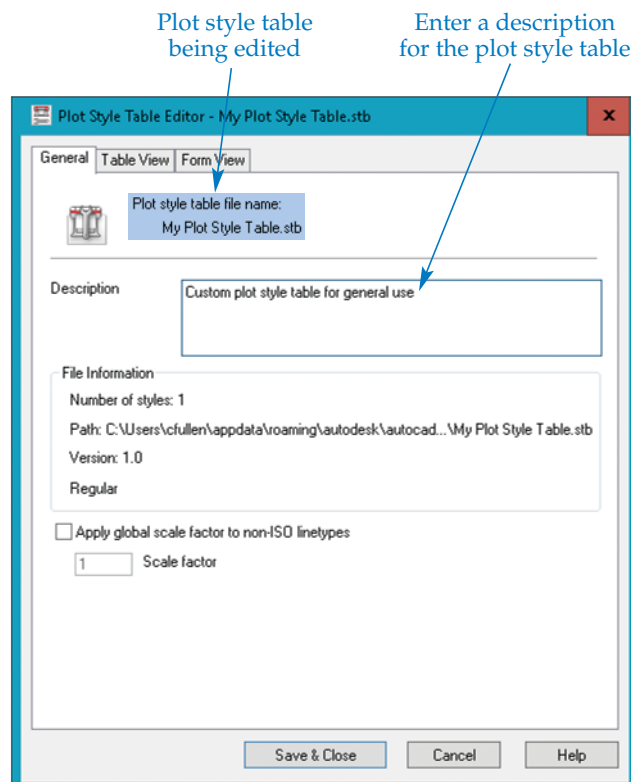
To edit an existing plot style table from the **Page Setup** dialog box, pick the plot style table from the drop-down list and select the **Edit…** button. You can also edit an existing plot style table from the **Plot Styles** window by double-clicking on the plot style table file name. Both methods open the **Plot Style Table Editor** dialog box.

The **Plot Style Table Editor** dialog box allows you to assign properties to colors for color-dependent plot style tables, or to styles for named plot style tables. The **General** tab contains general information regarding the plot style table. Enter a description in the **Description** area. Select the **Apply global scale factor to non-ISO linetypes** check box to scale all non-ISO linetypes and fill patterns by the value you specify in the **Scale factor** text box.

Use the **Table View** and **Form View** tabs to modify plot style properties and to create and delete plot styles. Both tabs contain the same settings, although the names of some of the properties are slightly different. The **Table View** tab uses a table to display and manage plot styles. The **Form View** tab displays plot styles in a dialog box format. See **Figure 28A-6**. The areas and options found in the **Table View** and **Form View** tabs are the same whether the selected plot style table is color-dependent or named.

When you use a color-dependent plot style table, objects plot according to object color. Color-dependent plot style tables contain 255 preset plot styles—one for each AutoCAD Color Index (ACI) color. Each color-dependent plot style is linked to an index color that you cannot rename or delete. This is also the reason you cannot add a new color-dependent plot style.

When you use a named plot style table, objects plot according to named plot style values, which you can assign to an object or layer. Any object or layer assigned to a named style plots using the settings specified for that plot style. Named plot style tables contain as many named plot styles as have been created. A named plot style table created from scratch includes a single plot style named Normal. The Normal plot style forms automatically, cannot be modified, and is assigned to all layers by default. You must create a new style for every set of properties that differs from the Normal style.

Creating, Deleting, and Editing Plot Styles

To create a new named plot style, pick the **Add Style** button. In the **Table View** tab, the new style appears as a new column. The default name of the new style is Style *n*. Highlight the name and enter a more descriptive name. In the **Form View** tab, the **Add Plot Style** dialog box appears when you pick the **Add Style** button. Enter a new name and pick the **OK** button.

<div style="text-align:center">

PROFESSIONAL TIP

</div>

Consider creating a named style for each layer used in the drawing or for each line-weight. For example, create named styles such as Walls, Doors, Dimensions, Heavy lines, Medium lines, or Thin lines. If the drawing has several layers with similar names and properties, such as A-WALL and AD-WALL, you may decide to create one named style called Walls and assign the plot style to all the wall layers.

To delete a named plot style in the **Form View** tab, pick the style name and then the **Delete Style** button. To delete a named plot style in the **Table View** tab, pick the gray bar above the style name and then pick the **Delete Style** button.

To modify plot style properties in the **Table View** tab, use the text boxes and drop-down lists beneath the name of the plot style to adjust the properties. You may need to use the scroll bar to display the plot style to edit. To modify plot style properties in the **Form View** tab, select the plot style you want to edit from the **Plot styles:** list box.

Use the scroll bars if necessary. Then use the **Description:** text box and the text boxes and drop-down lists in the **Properties** area to adjust the plot style properties. The process of adjusting plot style properties is similar to that of adjusting object properties using the **Properties** palette. The plot style properties you select override the properties assigned to objects for plotting purposes only.

Figure 28A-6.
The **Table View** and **Form View** tabs of the **Plot Style Table Editor** dialog box allow you to modify, add, and delete plot styles.
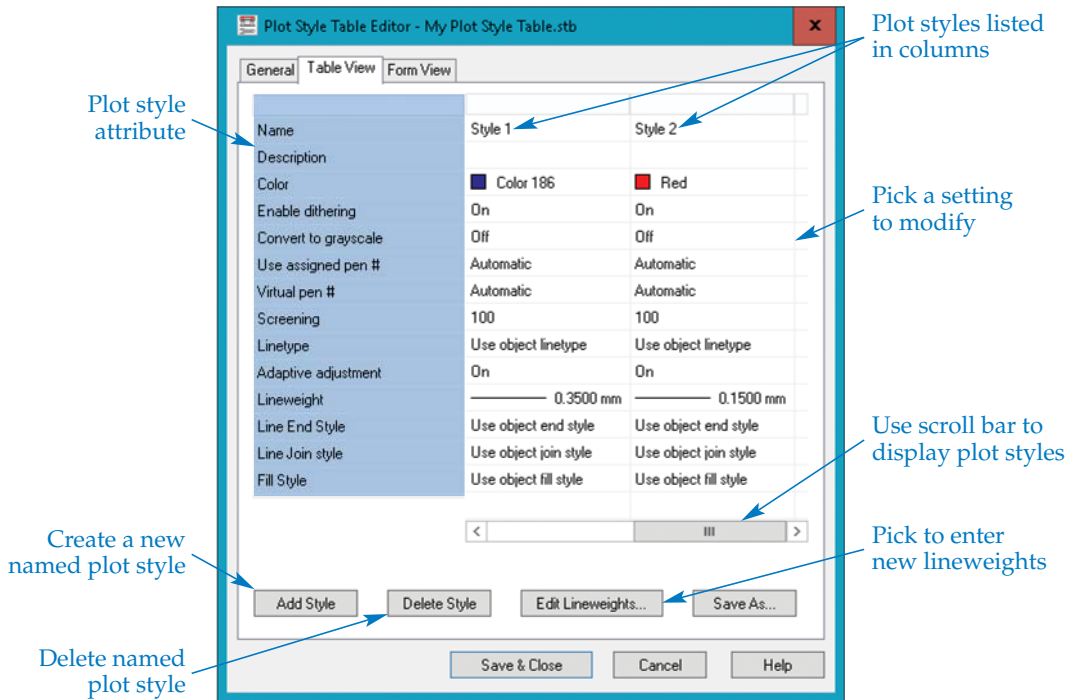
Table View Tab for Named Plot Style Table
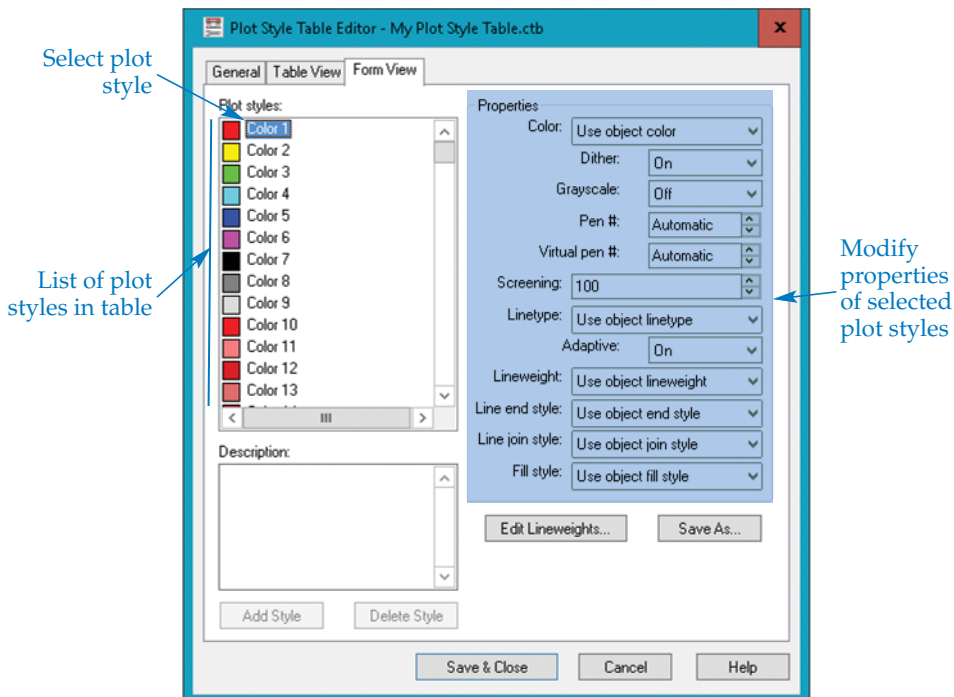
Form View Tab for Color-Dependent Plot Style Table

Plot Color

Use the **Color** drop-down list to select a plot style color that overrides the color applied to objects. In a color-dependent plot style table, the color overrides the color of objects assigned the plot style color. For example, if you change the color of plot style Color 1 (red) to Black, all objects drawn using a red color plot black. In a named plot style table, the color you select applies to the named style. Any layers or objects to which you assign the named style plot according to the selected color. For example, if you change the color of a plot style named Style 1 to Black and then assign Style 1 to a layer named Doors, all objects drawn using the Doors layer plot black. The **Use object color** option plots AutoCAD colors with the same colors that appear in the drawing, assuming you use a color plotter.

Dithering and Grayscale

Use the **Enable dithering** or **Dither** drop-down list to allow or disable dithering. *Dithering* is a plotter setting in which lines appear as dotted linetypes in which dots are spaced closer to or farther from each other to create the illusion of shading. The setting is ignored if the selected plotter or printer does not support dithering. Create test plots with the dither option on and off to determine the best method to use for plotting.

The **Convert to grayscale** or **Grayscale** drop-down list allows you to turn grayscaling on or off. If grayscaling is turned on, AutoCAD object colors are converted to shades of gray. See **Figure 28A-7**. Some printers or plotters do not support grayscaling. Try plotting a sheet with grayscaling on and off to determine the best plotting method.

Pen Settings

The **Use assigned pen #** or **Pen #** setting applies only to plotters that use actual pens for plotting. You can assign 32 pens, #1 through #32, to the AutoCAD object colors. Pen number corresponds to the pen number in the plotter. For example, pen #1 may plot blue lines that are 0.3 mm thick. You cannot change the assigned pen number if the plot style color is set to **Use object color**, or if you edit a plot style in a color-dependent plot style table. In these cases, the value is set to Automatic. Set the pen number to Automatic to enable AutoCAD to select a pen based on the plotter configuration for each of the AutoCAD object colors.

Figure 28A-7.
An example of using the **Convert to grayscale** plot style option.

Objects On-Screen   Printed Image
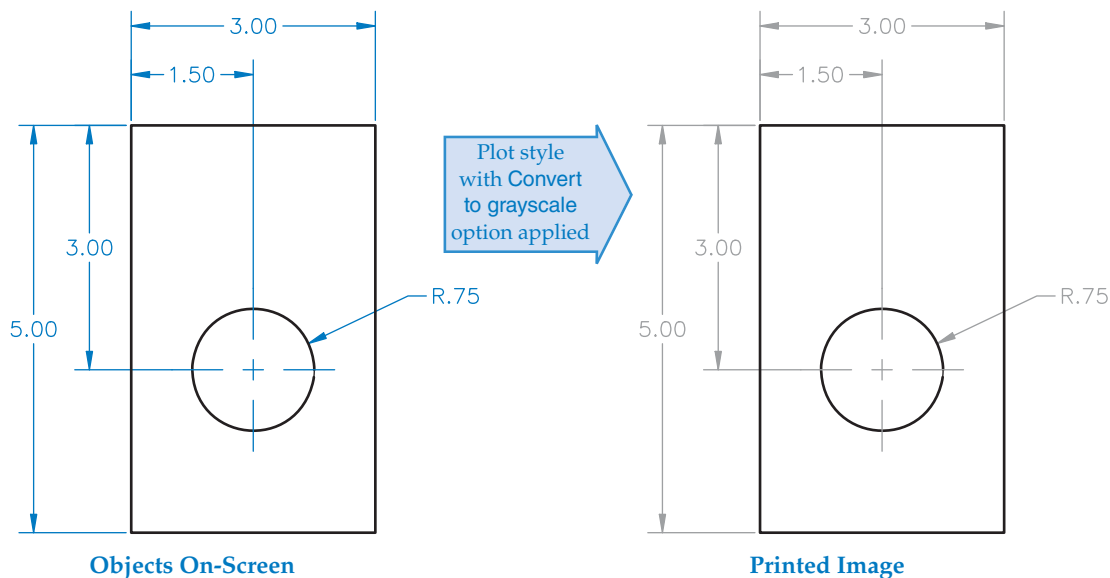
The **Virtual pen #** setting simulates pen numbers for non-pen plotters, such as inkjet plotters. Virtual pens use pen numbers ranging from 1 to 255. Refer to the AutoCAD user documentation for information on configuring plotters to use virtual pens. If the pen setting is Automatic for each of the AutoCAD object colors, AutoCAD selects a virtual pen from the AutoCAD Color Index (ACI).

Screening

The **Screening** setting controls the way ink is deposited on the plotted paper for each of the AutoCAD object colors. Screening fades or "washes out" plotted colors. A value of 100 plots the object with the full intensity of color, a value of 50 plots the object color at half the intensity, and a value of 0 plots the object color as white. See **Figure 28A-8**.
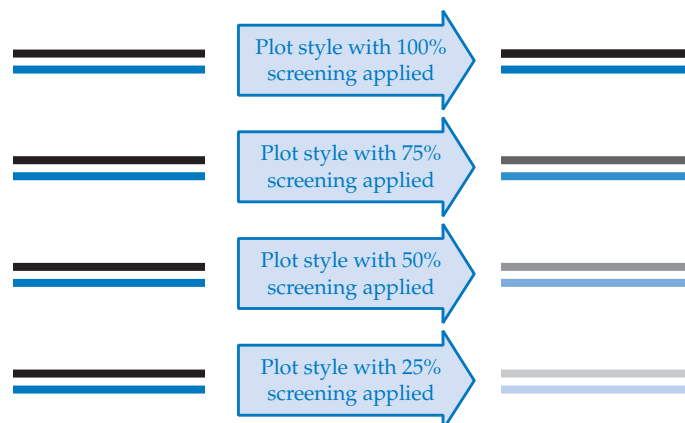
Linetype

Use the **Linetype** drop-down list to select a plot style linetype to override the linetype applied to objects. The default value, **Use object linetype**, plots objects with the linetypes specified in the drawing. The **Adaptive adjustment** or **Adaptive** setting adjusts the scale of the linetype to complete the linetype pattern. If you turn off the **Adaptive** setting, the line might have an incomplete pattern. Select **On** from the drop-down list if complete linetype patterns are important to the plot.

Lineweight and End Style

Use the **Lineweight** drop-down list to select a plot style lineweight to override the lineweight applied to objects. The default value, **Use object lineweight**, plots objects with the lineweights specified in the drawing. The **Plot Style Table Editor** dialog box includes an **Edit Lineweights…** button that opens the **Edit Lineweights** dialog box. This provides a convenient way to adjust default lineweight settings while you work with plot styles.

The **Line End Style** drop-down list provides options for assigning a line end style to the ends of all lines, polylines, and arcs using the associated color in the drawing. See **Figure 28A-9**. Lines need to be thick in order for the line end style to be noticeable. The default setting is **Use object end style**. Use the **Line Join Style** drop-down list to add a line join style to the joint between two lines that share an endpoint. The options include **Miter**, **Bevel**, **Round**, and **Diamond**. The default setting is **Use object join style**.
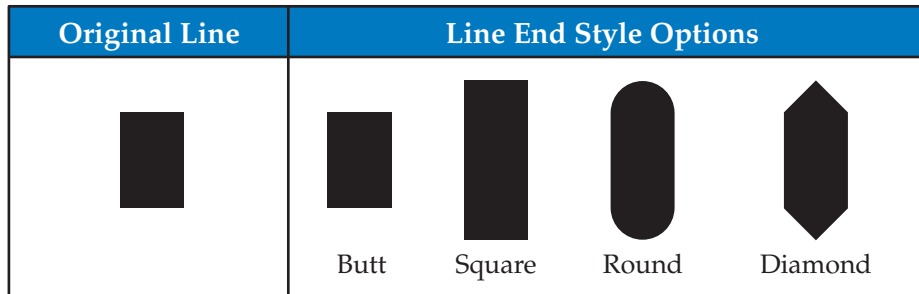
Figure 28A-8.
Examples of screening values.

Plot style with 100% screening applied

Plot style with 75% screening applied

Plot style with 50% screening applied

Plot style with 25% screening applied

Examples of line end style options that can be set in a plot style.

Original Line	Line End Style Options			
	Butt	Square	Round	Diamond

Fill Style

Use the **Fill Style** drop-down list to adjust how a filled object appears. Filled objects include objects created using a solid hatch pattern, objects created using the **SOLID** command, donuts, and wide polylines. The default setting is **Use object fill style**, which plots filled objects with a solid pattern. **Figure 28A-10** shows the other options.

Applying New Settings

After you adjust all of the AutoCAD object colors or named styles to the desired settings, pick the **Save & Close** button to apply the settings to the plot style table. If you entered the **Plot Style Table Editor** dialog box from the **Add Plot Style Table - Finish** page, pick the **Finish** button. You can now select the plot style table from the drop-down list in the **Plot style table (pen assignments)** area of the **Page Setup** dialog box. Another option is to pick the **Save As…** button to create a copy of the edited plot style table using a different name. Then pick the **Save & Close** button to exit the **Plot Style Table Editor** dialog box.

NOTE

Right-click inside areas of the **Table View** and **Form View** tabs to display a shortcut menu of options for managing plot styles and plot style properties.

Figure 28A-10.
Examples of fill styles that can be set in a plot style.

Solid	Checkerboard	Crosshatch	Diamonds	Horizontal Bars

Slant Left	Slant Right	Square Dots	Vertical Bars