# Drawing Lines, Arrows, Curves, and Freehand Shapes

After completing this chapter, you will be able to:

- Draw lines and arrows on the screen
- Change the line color, style, and thickness
- Draw curves and reshape them by editing vertices
- Draw freehand and scribble on screen
- Until now in this text, when you wanted to place a graphic on the screen you used the Insert Picture from File or Clip Art tool to bring up an image that had been created in advance. This works well for pictures, but if all you want is a simple line, curve, box, or circle, it is quicker to draw directly on the screen. This chapter teaches you how to use the drawing toolbar to draw simple graphics directly onto the screen.

## **Drawing Lines**

Show-Me Movie:

"Drawing Lines"

To draw a line on the screen with PowerPoint, you use the Line tool. The Line tool appears about a third of the way over on the Drawing toolbar. If the Drawing toolbar is not visible, pull down the PowerPoint View menu, choose Toolbars, and select the Drawing toolbar. To draw a line, follow these steps:

- Use PowerPoint to go to the screen on which you want to draw the line. In this example, open your *Practice.ppt* file, go to the last slide, and click the New Slide icon to create a new slide. When PowerPoint asks you to choose a layout for the new slide, choose the blank layout.
- To draw a line, click the Line tool, then move your mouse to the spot at which you want to start drawing. Notice how your cursor has the shape of a cross; the cross means you are ready to draw.
- While holding down the left mouse button, drag the mouse to form the line. As you drag the mouse, the line will stretch to show where the line will go when you let up the button.

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The Line tool •								

- When you release the mouse button, the line appears on screen, with handles on each end of it. The line is an object, and like any object in PowerPoint, you can drag the handles to manipulate the object.
- To practice manipulating the line, click and drag the handles. Notice how easily you can adjust the size of the line.
- To practice repositioning the line, click and drag on the line anywhere between the two endpoints. Notice how you can move the line anyplace on the slide.
- To modify the properties of the line, double-click it, or pull down the Format menu and choose AutoShape. The Format Autoshape dialog appears as illustrated in Figure 36-1. Pull down the menus if you want to change the color, style, or weight (i.e., thickness) of the line. Figure 36-2 shows the different styles you can choose.
- Right-click the line if you want to give it action settings, animate it, or hyperlink it.

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Figure 36-1 The Format Autoshape dialog lets you change the appearance of the line.

**Figure 36-2** The Style menu in the Format Autoshape dialog.

#### **Drawing Arrows**

Show-Me Movie:

"Drawing Arrows"

To draw an arrow on the screen with PowerPoint, you use the Arrow tool. The Arrow tool appears alongside the Line tool about a third of the way from the left on the Drawing toolbar. To draw an arrow, follow the same steps as for drawing a line. The only difference is that you click the Arrow tool instead of the Line tool before you start drawing.



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**Figure 36-3** The Format AutoShape dialog lets you change the style of the arrow.

After you draw the arrow, you can modify the format and style that determines how the beginning and end of the arrow appear on-screen. After you draw the arrow, doubleclick it, or pull down the Format menu and choose AutoShape. When the Format Autoshape dialog appears, pull down the Begin Style or End Style menus and choose from the styles listed in Figure 36-3. To make the style you choose become the default for new arrows that you draw, click the box at the bottom of the dialog to make the current settings become the default for new objects.

#### **Drawing Curves**

Show-Me Movie: "Drawing Curves" To draw a curve on the screen with PowerPoint, use the Curve tool. The curve can have one or more vertices, around which you can bend the curve in a wide range of patterns. Follow these steps:

- Use PowerPoint to go to the screen on which you want to draw the curve. In this example, go to the last slide in your *Practice.ppt* file.
- On the Drawing toolbar, click AutoShapes, choose Lines, then click Curve.
- Move your mouse to the spot at which you want to start drawing. Notice how your cursor has the shape of a cross; the cross means you are ready to draw.
- Click where you want the curve to start, and then continue to move the mouse, and click wherever you want to add a curve.
- To end the shape, double-click it at any point. To close the shape, click near its starting point.
- When you are done drawing the curve, handles will appear around it. The handles mark the boundaries of the object you just drew. You can use the handles to resize the curve, or press the arrow keys to reposition it on-screen.
- Double-click the curve if you want to change its color, thickness, or style.
- Right-click the curve if you want to give it action settings, animate it, or hyperlink it.

#### **Reshaping a Curve**

Show-Me Movie: "Reshaping a Curve" Drawing curves freehand can be tricky. Often you will not get the shape you want on your first attempt. Happily, it is easy to reshape a curve and make it bend just the way you want. To change the shape of a curve after you have drawn it, follow these steps:

- Click to select the curve you want to reshape.
- On the Drawing toolbar, click Draw, then click Edit Points. Note: If Edit Points is not visible as a menu choice, click the down-arrow to expand the menu.
- To reshape the curve, drag one of the vertices that form its outline.
- To add a vertex to the curve, click where you want to add it, then drag.
- To delete a vertex, control-click the vertex you want to delete.
- To change the bend of a vertex, right-click the vertex and choose the option to smooth, straighten, or corner the curve, as illustrated in Figure 36-4.



**Figure 36-4** Right-clicking a vertex pops out a menu that lets you use any point to smooth, straighten, or corner a bend on the curve.

### Freehand Drawing (Scribbling)

Freehand drawing, also known as scribbling, enables you to draw on-screen any movement you can create with your mouse. Follow these steps:

- Use PowerPoint to go to the screen on which you want to draw freehand or scribble. In this example, go to the last slide of your *Practice.ppt* file, and click the New Slide icon to create a new slide. When PowerPoint asks you to choose a layout for the new slide, choose the blank layout.
- On the Draw toolbar, click AutoShapes, choose Lines, and click the Scribble tool.
- Move your mouse to the point at which you want to begin scribbling. Notice that the cursor has the shape of a pencil, indicating that you are ready to draw.

- Hold down the mouse button, and draw. Scribble whatever you want. When you are done, release the mouse button.
- Handles appear around the scribbling. Like any object, you can use the handles to resize the scribbling, or you can use the arrow keys to reposition it on screen.
- If you want to reshape the scribbling, follow the steps above for reshaping a curve.
- Double-click the scribbling if you want to change its color, thickness, or style.
- Right-click the scribbling if you want to give it action settings, animate it, or hyperlink it.

#### exercises

- In theory, freehand drawing lets you draw anything on-screen. The mouse can be limiting, however. To test the
  extent to which you can draw with the mouse, try to write your name on-screen. To do this, create a new screen at
  the end of your *Practice* application, and use the AutoShapes—Line—Scribble tool to sign your name. How
  closely does the scribbling resemble your signature?
- 2. To fix any abnormalities in the signature you created in exercise 1, try reshaping your signature. Right-click your signature, choose Edit Points, and try moving the points around to make the scribbling more closely resemble your signature. How closely does the reshaped scribbling resemble your signature?