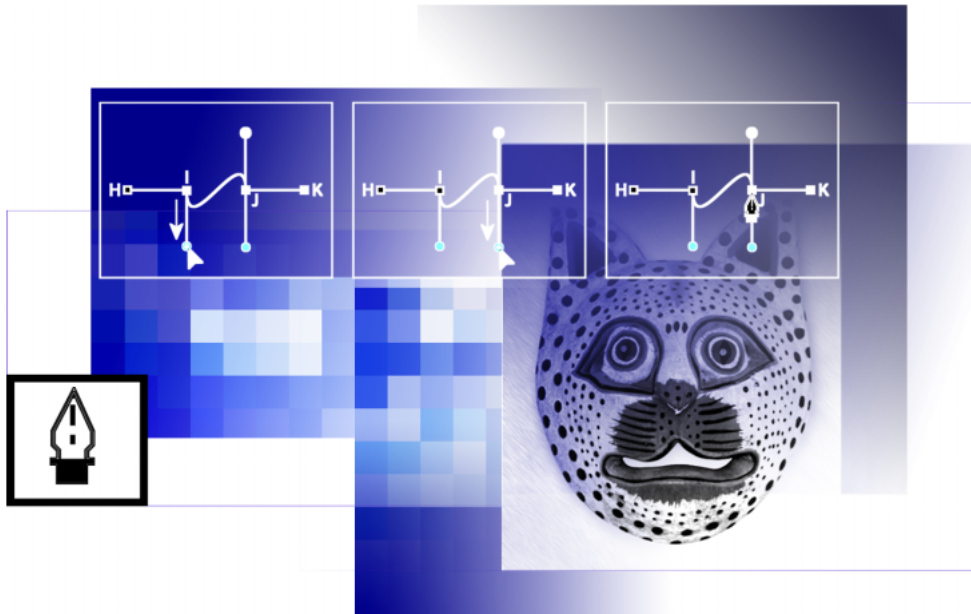


7 Basic Pen Tool Techniques



The pen tool draws precise straight or curved lines called paths. You can use the pen tool as a drawing tool or as a selection tool. When used as a selection tool, the pen tool always draws smooth, anti-aliased outlines. These paths are an excellent alternative to using the standard selection tools for creating intricate selections.

In this lesson, you'll learn how to do the following:

- Practice drawing straight and curved paths using the pen tool.
- Save paths.
- Fill and stroke paths.
- Edit paths using the path editing tools.
- Convert a path to a selection.
- Convert a selection to a path.

This lesson will take about 50 minutes to complete. The lesson is designed to be done in Adobe Photoshop. Adobe ImageReady does not have a pen tool and does not support paths.

If needed, remove the previous lesson folder from your hard drive, and copy the Lesson07 folder onto it. As you work on this lesson, you'll overwrite the start files. If you need to restore the start files, copy them from the *Adobe Photoshop Classroom in a Book* CD.

Note: Windows users need to unlock the lesson files before using them. For information, see “Copying the Classroom in a Book files” on page 3.

Getting started

You'll start the lesson by viewing a copy of the finished image that you'll create. Then you'll open a series of template files that guide you through the process of creating straight paths, curved paths, and paths that are a combination of both. In addition, you'll learn how to add points to a path, how to subtract points from a path, and how to convert a straight line to a curve and vice versa. After you've practiced drawing and editing paths using the templates, you'll open an image of the cat mask and practice making selections using the pen tool.

Before beginning this lesson, restore the default application settings for Adobe Photoshop. See “Restoring default preferences” on page 4.

1 Start Adobe Photoshop.

If a notice appears asking whether you want to customize your color settings, click No.


2 Choose File > Open, and open the file 07End.psd from the Lessons/Lesson07 folder on your hard drive.

3 When you have finished viewing the file, either leave it open for reference or close it without saving changes.

 For an illustration of the finished artwork for this lesson, see the gallery at the beginning of the color section.

Now you'll open the first template for drawing straight paths.


4 Choose File > Open and open the file Straight.psd from the Lessons/Lesson07 folder.


5 If desired, select the zoom tool () and drag over the image to magnify the view.

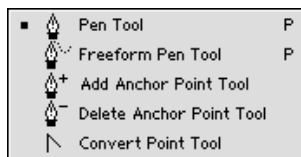
Drawing paths with the pen tool


The pen tool draws straight and curved lines called *paths*. A path is any line or shape you draw using the pen, magnetic pen, or freeform pen tool. Of these tools, the pen tool draws paths with the greatest precision; the magnetic pen and freeform pen tools let you draw paths as if you were drawing with a pencil on paper.

Paths can be open or closed. Open paths have two distinct endpoints. Closed paths are continuous; for example, a circle is a closed path. The type of path you draw affects how it can be selected and adjusted. Paths that have not been filled or stroked do not print when you print your artwork. (This is because paths are vector objects that contain no pixels, unlike the bitmap shapes drawn by the pencil and other painting tools.)

1 Select the pen tool ()

 Press *P* on the keyboard to select the pen tool. Continue to press *Shift+P* to toggle between the pen and freeform pen tools.

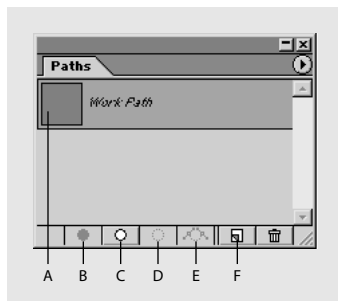


2 In the tool options bar, make sure the Create new work path () and the Auto Add/Delete options are selected. For this lesson, the Rubber Band option should not be selected.



3 Click the Paths palette tab to bring the palette to the front of its group.

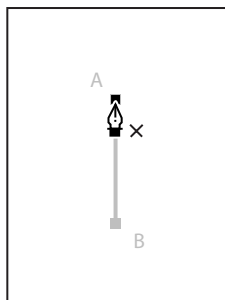
The Paths palette displays thumbnail previews of the paths you draw.



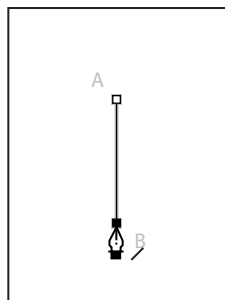
A. Path thumbnail B. Fills path with foreground color C. Strokes path with foreground color D. Loads path as a selection E. Makes work path from selection F. Creates new path

Drawing straight paths

Straight paths are created by clicking the mouse button. The first time you click, you set a starting point for a path. Each time thereafter that you click, a straight line is drawn between the previous point and the current point.



Click to set a starting point.

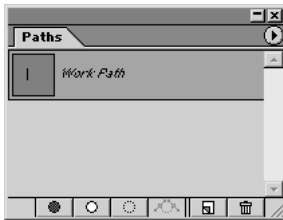


Click again to draw a straight line.

1 Using the pen tool, position the pointer on point A in the template and click the pen tool. Then click point B to create a straight-line path.

As you draw paths, a temporary storage area named Work Path appears in the Paths palette to keep track of the paths you draw.

You'll also notice that once you start using the pen tool, the tool options bar changes to a slightly different set of options. The Add to shape area option (■) should be selected for this lesson.



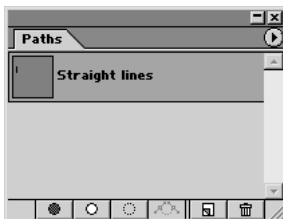
2 End the path in the image by clicking the pen tool (✎) in the toolbox.

The points that connect paths are called *anchor points*. You can drag individual anchor points to edit segments of a path, or you can select all the anchor points to select the entire path.

You'll learn more about anchor points later in this lesson.

3 In the Paths palette, double-click the Work Path to open the Save Path dialog box. Enter **Straight lines** in the Name text box, and click OK to rename the path.

The path is renamed, and remains selected in the Paths palette.



You must save a work path to avoid losing its contents. If you deselect the work path without saving and then start drawing again, a new work path will replace the first one.

About anchor points, direction lines, and direction points

A path consists of one or more straight or curved segments. Anchor points mark the endpoints of the path segments. On curved segments, each selected anchor point displays one or two direction lines, ending in direction points. The positions of direction lines and points determine the size and shape of a curved segment. Moving these elements reshapes the curves in a path.

A path can be closed, with no beginning or end (for example, a circle), or open, with distinct endpoints (for example, a wavy line).

Smooth curves are connected by anchor points called smooth points. Sharply curved paths are connected by corner points.

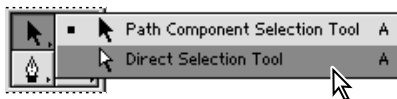
When you move a direction line on a smooth point, the curved segments on both sides of the point adjust simultaneously. In comparison, when you move a direction line on a corner point, only the curve on the same side of the point as the direction line is adjusted.

—From Adobe Photoshop 6.0 online Help

Moving and adjusting paths

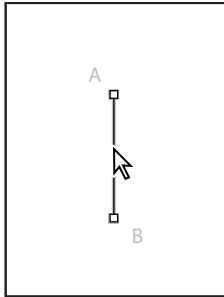
You use the direct selection tool to select and adjust an anchor point, a path segment, or an entire path.

- 1 Select the direct selection tool (⌘) hidden under the path component selection tool (⌘).

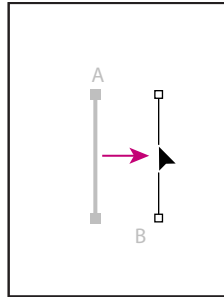


💡 To select the direct selection tool, press A. You can also select the direct selection tool when the pen tool is active by holding down Ctrl (Windows) or Command (Mac OS).

- 2** Click the path in the window to select it, and then move the path by dragging anywhere on the path using the direct selection tool.

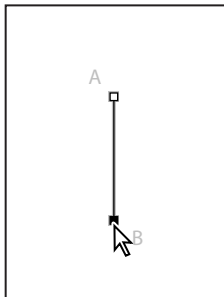


Selecting a path

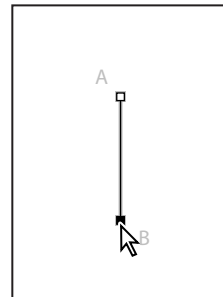
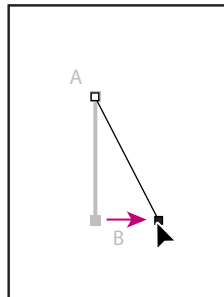


Moving a path

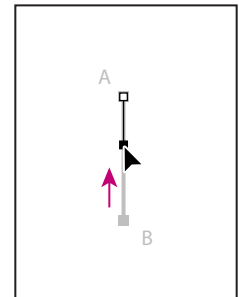
- 3** To adjust the angle or length of the path, drag one of the anchor points with the direct selection tool.



Adjusting the path angle



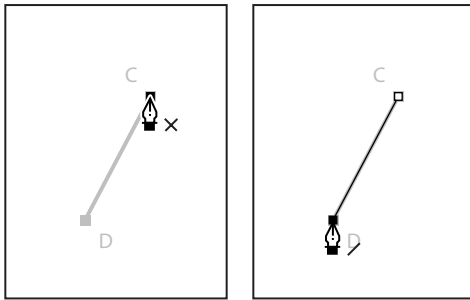
Adjusting the path length



- 4** Select the pen tool.

- 5** To begin the next path, hold the pointer over point C. Click point C with the pen tool. Notice that an *x* appears in the pen tool pointer to indicate that you are starting a new path.

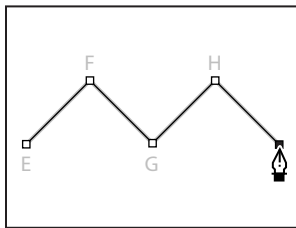
6 Click point D to draw a path between the two points.



7 End the path using either of the following methods:

- Click the pen tool in the toolbox.
- Hold down Ctrl (Windows) or Command (Mac OS), and click away from the path. Holding down Ctrl/Command while the pen tool is active selects the direct selection tool.

8 Click point E to begin the next path. Then hold down Shift and click points F, G, H, and I. Holding down Shift as you click subsequent points constrains the path to a 45° angle.



If you make a mistake while you're drawing, choose Edit > Undo to undo the last anchor point. Then click with the pen tool to continue.

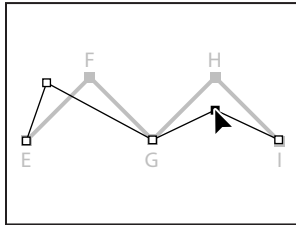
9 End the path using one of the methods you've learned.

When a path contains more than one segment, you can drag individual anchor points to adjust individual segments of the path. You can also select all of the anchor points in a path to edit the entire path.

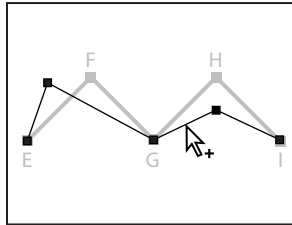
10 Select the direct selection tool (⌘).

11 Try dragging individual anchor points to move segments of the zigzag path you just drew.

12 To select an entire path, Alt-click (Windows) or Option-click (Mac OS) with the direct selection tool. When an entire path is selected, all the anchor points are solid.



Dragging individual points




Alt/Option-clicking to select entire path

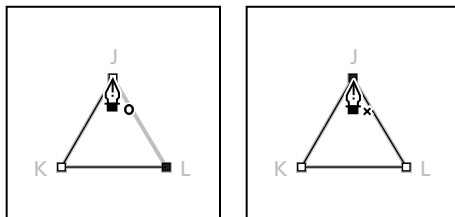
13 Drag the path to move the entire path; then choose Edit > Undo to undo the move.

Creating closed paths

Next you'll draw a closed path. Creating a closed path differs from creating an open path in the way that you end the path.

- 1 Select the pen tool (.
- 2 Click point J to begin the path; then click point K and point L.

When you position the pointer over the starting point to end the path, a small circle appears with the pen tool to indicate that the path will be closed when you click.



Circle indicating path will be closed, and result

- 3 To close the path, position the pointer over the starting point (point J), and click.

Closing the path ends the path. In contrast, to end an open path you must click the pen tool in the toolbox or Ctrl/Command-click away from the path.


If desired, practice drawing another closed path using the star shape on the template as a guide.

At this point, all of the paths you've drawn appear in the Straight Lines work path in the Paths palette. Each individual path on the Straight Lines path is called a *subpath*.

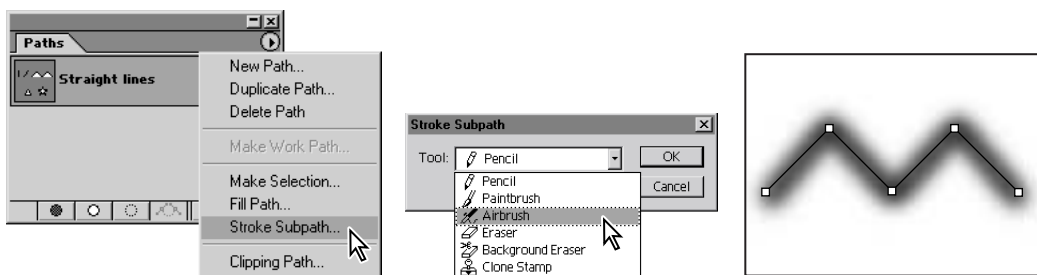
You can convert any path you have drawn into a selection and combine this selection with others. (You'll try this later.) You can also convert selection borders into paths and fine-tune them.

Painting paths

Painting paths adds pixels that appear when you print an image. Filling paints a closed path with color, an image, or a pattern. Stroking paints color along the path. To fill or stroke a path, you must first select it.

- 1 Click the Swatches palette tab to bring the palette forward. Click a swatch to select a foreground color to use to paint the path.
- 2 Select the direct selection tool ()
- 3 In the image window, click the zigzag line with the direct selection tool to select it. Then choose Stroke Subpath from the Paths palette menu.
- 4 In the Stroke Subpath dialog box, choose Airbrush from the Tool menu, and click OK.

The path is stroked with the current airbrush settings.



Choosing the Stroke Subpath command

Airbrush tool

Result

Note: You can select a painting tool and set attributes before you select the tool in the Stroke Subpath dialog box.

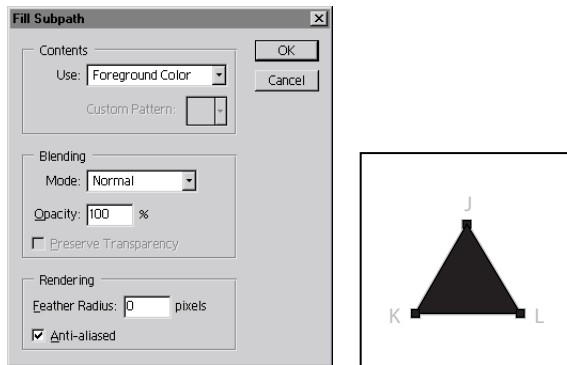
Now try filling one of the paths.

- 5 In the Swatches palette, click a swatch to select a different foreground color for the fill.

6 Click the triangular closed path with the direct selection tool. Then choose Fill Subpath from the Paths palette menu. The Fill Subpath dialog box appears.

7 In the Fill Subpath dialog box, click OK to accept the defaults.

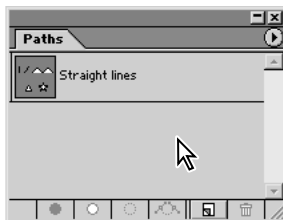
The triangular path is filled with the foreground color.



*Using the Fill Subpath command
to fill a closed subpath*

Result

8 To hide the paths, click below the pathnames in the blank area of the Paths palette.

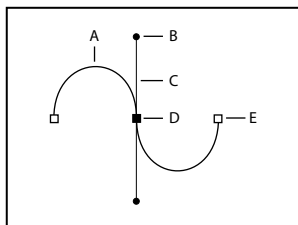


9 Choose File > Close, and do not save changes.

Drawing curved paths

Curved paths are created by clicking and dragging. The first time you click and drag, you set a starting point for the curved path and also determine the direction of the curve. As you continue to drag, a curved path is drawn between the previous point and the current point.

As you drag the pen tool, Photoshop draws *direction lines* and *direction points* from the anchor point. Direction lines and points are used to edit the shape of curves and to change the direction of curves. You'll edit paths using the direction lines and direction points after you practice drawing curved paths.

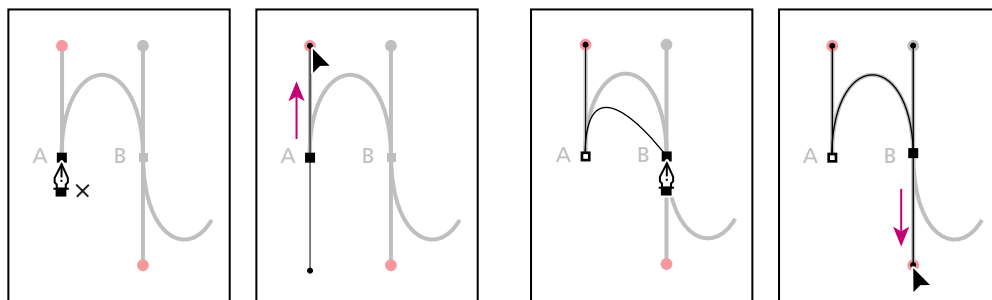


Direction lines and points setting the curve direction

A. Curved line segment **B.** Direction point
C. Direction line **D.** Selected anchor point
E. Unselected anchor point

Like unpainted paths, direction lines and points do not print when you print your artwork because they are vector objects that contain no pixels.

- 1 Choose File > Open, and open the file Curves.psd from the Lessons/Lesson07 folder.
- 2 Select the pen tool (P).
- 3 Click on point A of the first curve. Hold down the mouse button, and drag from point A toward the red dot. Then release the mouse button.
- 4 To complete the first curve of the path, drag from point B to the red dot. If you make a mistake while you're drawing, choose Edit > Undo New Anchor Point to undo the last point you drew. Then continue drawing the path.



Position pointer on point A and drag to draw a curve.

Drag again to complete the curve.

- 5 Complete the curved path by dragging from point C to the red dot and from point D to the red dot. End the path using one of the methods you learned.
- 6 Now you'll save the temporary work path so that you don't lose its contents.
- 7 Double-click the Work Path in the Paths palette to open the Save Path dialog box. Enter **Curve1** in the Name text box, and click OK to rename the path.

The named path is selected in the Paths palette.

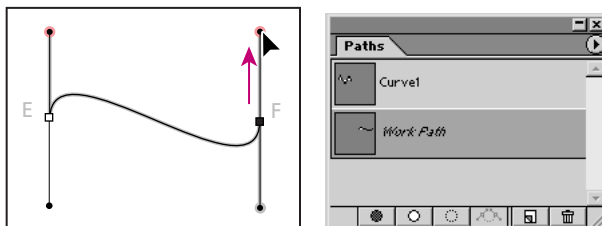
You must name the work path before you deselect it to prevent a new work path from replacing the first one as you start drawing again.

Creating separate paths

Now that you've created a new path in the Paths palette, as you continue to draw the path, you create a connected series of segments, or subpaths. Subpaths are saved automatically.

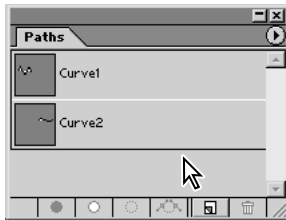
But sometimes you'll want to create separate named paths for each path you draw. To start a new Work Path, you click away from the current path in the Paths palette.

- 1 In the Paths palette, click in the blank area below the Curve1 path to deselect the path. When you deselect a path in the Paths palette, any paths on the named path are deselected (hidden). To make them reappear, you click the desired path in the Paths palette (don't click the path now, because you're going to create a new one in a moment).
- 2 Drag up from point E to the red dot; then drag up from point F to the red dot. You'll notice that as soon as you begin drawing, a new Work Path appears in the Paths palette.



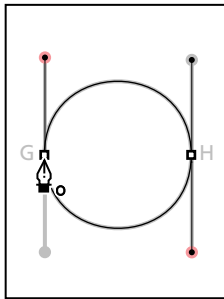
- 3 End the path using one of the methods you've learned.
- 4 Double-click the Work Path in the Paths palette, name the path **Curve2**, and then click OK.

- 5 Click away from the Curve2 path in the Paths palette to deselect it.




Now you'll create a closed curved path.

- 6 Drag up from point G to the red dot; then drag down from point H to the red dot. To close the path, position the pointer over point G, and click.



- 7 In the Paths palette, double-click the Work Path, save the path as **Closed Path**, and then click away from the path to deselect it.

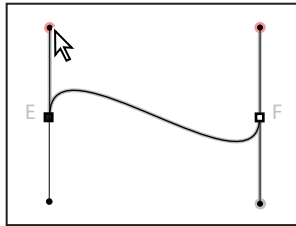
Now you'll have a chance to edit the curved paths you've drawn.

- 8 Select the direct selection tool ()

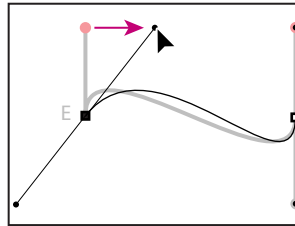
 Press **A**, or hold down **Ctrl** (Windows) or **Command** (Mac OS) when the pen tool is active to select the direct selection tool from the keyboard.

- 9 In the Paths palette, click the Curve2 path to select it; then click the path in the window to select it.

10 Click one of the anchor points in the curve; then drag a direction point at the end of the direction line emanating from the anchor point.

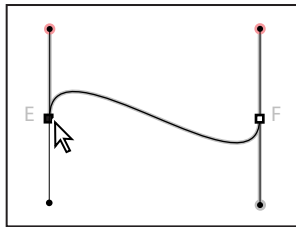


Dragging a direction point

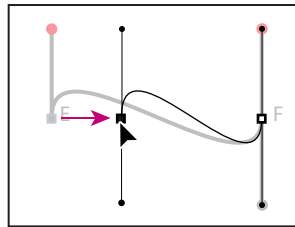


Direction of curve changes

11 Now drag an anchor point to change the location of the curve.




Dragging an anchor point




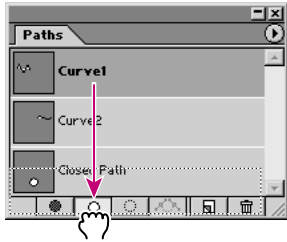
Location of curve changes

Stroking and filling paths


In addition to using the Stroke Path command, you can stroke or fill paths by dragging a named path onto a button at the bottom of the Paths palette. To determine which painting option you want to stroke a path with, you select the desired painting tool before you drag the path onto the Stroke Path with Foreground Color button.

1 Select the paintbrush tool ()

- 2 Drag the Curve1 path onto the Stroke Path with Foreground Color button () at the bottom of the Paths palette to stroke the path with the current paintbrush settings.



Note: You can also fill or stroke a path by clicking the Fill Path with Foreground Color button or the Stroke Path with Foreground Color button at the bottom of the Paths palette. Make sure that the path is selected in the palette before you click the button.

- 3 Drag the Closed path onto the Fill Path with Foreground Color button () at the bottom of the Paths palette to fill it with the current foreground color.


When you fill an open path, Photoshop automatically draws an invisible line between the starting point and the ending point, and fills the segments between them.

- 4 Choose File > Close, and do not save changes.

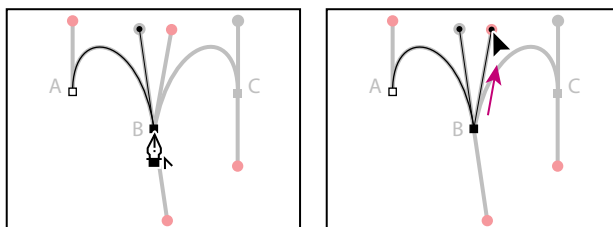
Combining straight and curved lines

Now that you've learned how to draw straight and curved paths individually, you'll put them together to create paths that combine straight and curved lines.

When you create a path that combines straight and curved lines, you create corner points to indicate the transition from a straight line to a curved line (or vice versa).

- 1 Choose File > Open, and open the file Combo.psd from the Lessons/Lesson07 folder.
- 2 Select the pen tool ().
- 3 Drag up from point A to the red dot; then drag from point B downward to the red dot. At point B, you must create a corner point to change the direction of the next curve.
- 4 Alt-click (Windows) or Option-click (Mac OS) point B to set a corner point.

5 Now drag from the same point (point B) up to the red dot to change the direction of the next curve.



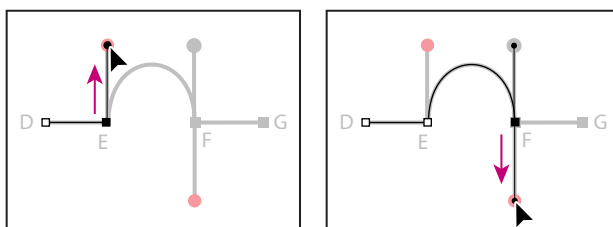
Alt-click (Windows) or Option-click (Mac OS) to set a corner point; then drag in the opposite direction.

6 Drag from point C to the red dot to complete the path. Then end the path using one of the methods you've learned.

7 To start the second path, which begins with a straight line, click point D with the pen tool; then hold down Shift, and click point E (don't drag).

8 Position the pointer on point E and drag to the red dot. Dragging from point E sets the direction of the next curve (which is an upward curve).

9 Drag from point F to the red dot; then Alt-click (Windows) or Option-click (Mac OS) point F to set a corner point.



Drag in the direction of the curve from point E; then drag in the opposite direction to complete the curve before setting a corner point.

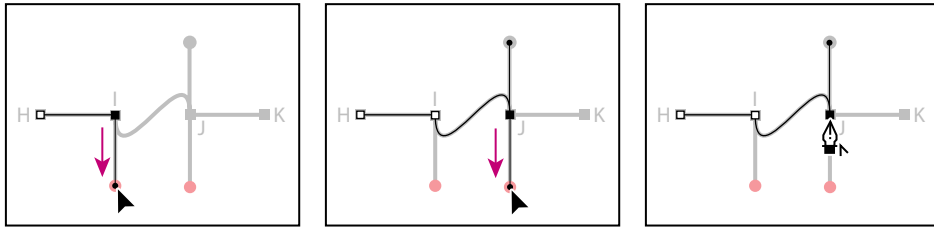
10 Hold down Shift, and click point G to create a straight line. Then end the path using one of the methods you learned.

11 To create the next path, click with the pen tool on point H, hold down Shift, and then click point I.

12 To set a curve at point I, Alt-drag (Windows) or Option-drag (Mac OS) to the red dot.

13 Drag from point J to the red dot.

14 Alt-click (Windows) or Option-click (Mac OS) point J to set a corner point.



Creating an S-curve by dragging in the opposite direction of a curve; then setting a corner point

15 To complete the path, Shift-click point K. End the path using one of the methods you've learned.

16 Choose File > Close, and do not save changes.

Adding and subtracting anchor points

You can add points to a path to increase the number of segments in the path, and you can subtract unneeded or unwanted points from a path.

1 Choose File > Open, and open the file Edit.psd from the Lessons/Lesson07 folder.

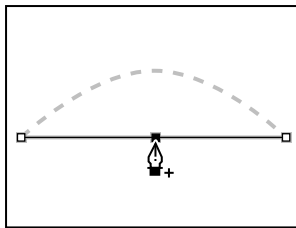
Two paths have been named and saved in the Paths palette. You'll edit the paths using the pen tool and the convert-point tool.

2 In the Paths palette, click the Add and delete points path to make it the active path. Two subpaths appear in the document window.

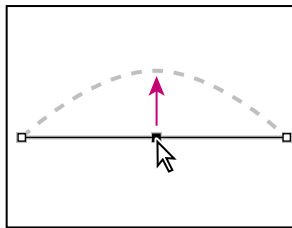
3 Select the add-anchor-point tool (⌘+) hidden under the pen tool (⌘). Then position the pointer over the red dot at the center of the straight path, and click.

An anchor point with direction lines is added to the segment, and the pointer becomes a hollow arrow, which lets you select and manipulate the path.

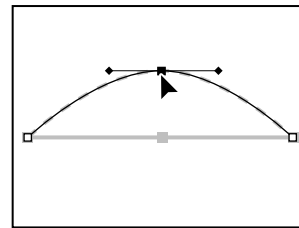
4 Now select and drag the path upward.



*Clicking with the
add-anchor-point tool*



Dragging the anchor point



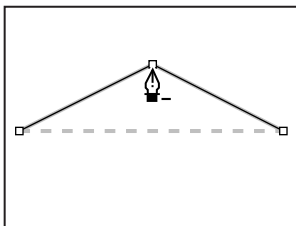
Result

Next you'll subtract an anchor point from a path.

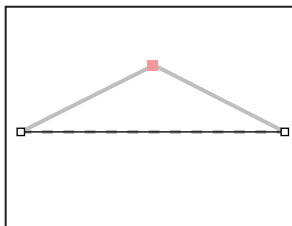
5 Select the direct selection tool (⌘) and select the second path.

You must select the path before you can delete points from the path. But you can select the path and the anchor points without first selecting a tool. If a path is selected, just move the pen tool over a segment to change it to the add-anchor-point tool. Move the pen tool over an end point to change the tool to the delete-anchor-point tool.

6 Select the delete-anchor-point tool (⌘) hidden under the add-anchor-point tool (⌘+), position the pointer on the red dot over the center anchor point, and then click to remove the anchor point.



*Clicking with the
delete-anchor-point tool*



Result

Converting points

Sometimes, you may want to change a curve to a corner point or vice versa. Using the convert-point tool, you can easily make the adjustment.

Using the convert-point tool is very much like drawing with the pen tool. To convert a curve to a corner point, you click the anchor point, and to convert a corner to a curve, you drag on the anchor point.

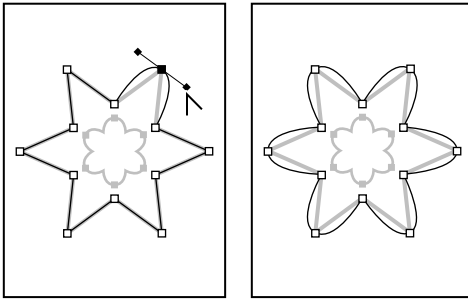
1 In the Paths palette, select the Convert directions path.

The shaped path has both corner points and curves. You'll start by converting the corner points to curves, and then you'll convert the curves to corner points.

2 Select the convert-point tool (↵) hidden under the delete-anchor-point tool (⌘-).

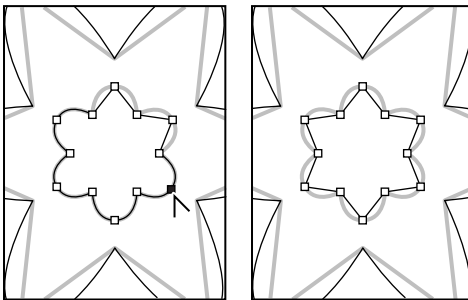
3 Position the pointer on a point of the outer path; then click and drag to convert the point from a corner point to a curve.

4 Convert the rest of the corner points to smooth points to complete the outer path.



Changing corner points to curves with the convert-point tool

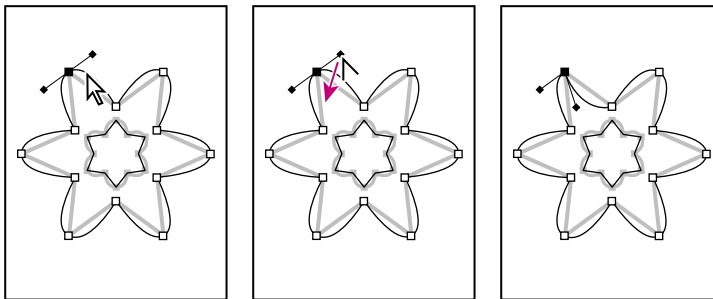
5 To convert the curves at the center of the shape to corner points, simply click the anchor point on each curve.



Converting curves to corner points with the convert-point tool

You can also use the convert-point tool to adjust only one side of a curved segment. You'll try this on the outer path.

- 6 Click the outer path with the direct selection tool; then click a curved segment so that direction lines and direction points emanate from one of the anchor points.
- 7 Select the convert-point tool again.
- 8 With the path still selected, position the convert-point tool directly on one of the direction points (at the end of a direction line), and drag. Only one side of the curve is adjusted.



Select the path with the direct selection tool; then adjust part of a curved segment with the convert-point tool.

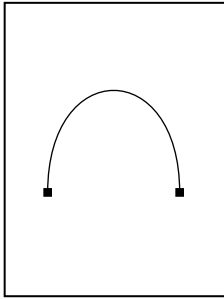
Remember that you can use the convert-point tool to convert a corner point to a curve, to convert a curve to a corner point, and to adjust one side of a curved segment.

- 9 Choose File > Close, and do not save changes.

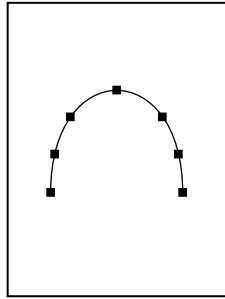
Drawing a path around artwork

Now that you've had some practice using the templates, you'll use the pen tool to make selections in the image of the cat mask. You'll draw two paths around parts of the image. After you've drawn the paths, you'll convert them to selections. Then you'll subtract one selection from the other and apply a filter to the remaining selection. To complete the image, you'll apply another filter to everything.

When drawing a freehand path using the pen tool, use as few points as possible to create the shape you want. The fewer points you use, the smoother the curves.




*Correct number
of points*



Too many points

1 Choose File > Open, and open the file Catmask.psd from the Lessons/Lesson07 folder. First you'll use the pen tool to draw a path around the outside of the mask. Then you'll create a path selecting the area inside the mouth and converting the selection to a path.

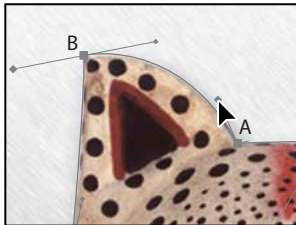
2 Select the pen tool (P), hidden under the convert-point tool (N).

 Press **P** on the keyboard to select the pen tool. Pressing **Shift+P** repeatedly toggles between the pen and freeform pen tools.

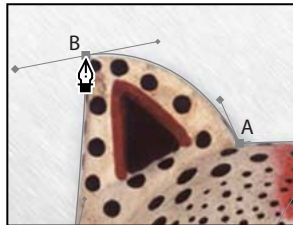
3 Position the pointer on point A, and drag to the red dot to set the first anchor point and the direction of the first curve.

4 Position the pointer on point B, and drag to the red dot.

5 At the tip of the ear, you'll need to set a corner point. Alt-click (Windows) or Option-click (Mac OS) point B to set a corner point. Remember, you set a corner point when the direction of the curve changes and no longer is smooth.



*Setting an anchor point and
direction of curve at A*



Setting a corner point at B

6 Now that you've set a corner point, position the pointer on point C, and drag to the red dot.

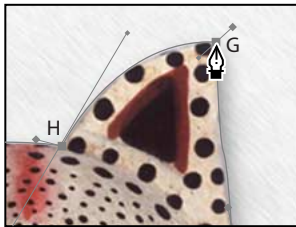
If you make a mistake while you're drawing, choose **Edit > Undo** to undo the step. Then resume drawing.

The next few points are simple curves.

7 Position the pointer on point D, and drag to the red dot; then do the same for points E and F.

At point G, you'll complete the curve from point F and then set another corner point at the tip of the ear.

8 Position the pointer on point G, and drag to the red dot. Then **Alt-click** (Windows) or **Option-click** (Mac OS) point G again to set a corner point.



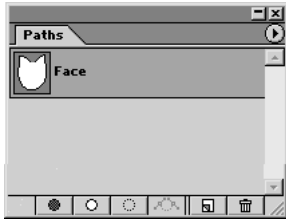
*Dragging from point G;
then setting a corner point at G*

9 Drag from point H to the red dot (below the anchor point) to complete the curve of the ear.

10 Still on point H, **Alt-drag** (Windows) or **Option-drag** (Mac OS) to the yellow dot on the left to set the direction of the final curve.

11 To complete the path, **Alt-drag** (Windows) or **Option-drag** (Mac OS) from point A to the yellow dot. (This adds a slight curve to the line between the ears.)


12 In the Paths palette, double-click the Work Path, enter **Face** in the Name text box, and click OK to save it.



13 Choose File > Save to save your work.

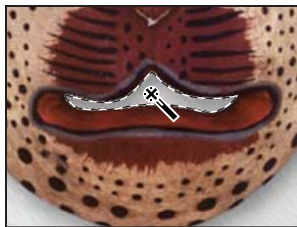
Converting selections to paths

Now you'll create a second path using a different method. First you'll use a selection tool to select a similarly colored area, and then you'll convert the selection to a path.

- 1 Click the Layers palette tab to display the palette, and then drag the Template layer to the Trash button at the bottom of the palette. You won't need this layer any longer.
- 2 Select the magic wand tool ()
- 3 In the Magic Wand tool options bar, enter **60** in the Tolerance text box.

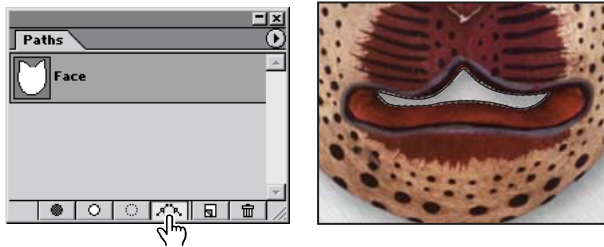


4 Click the gray background where it shows through the cat's mouth.



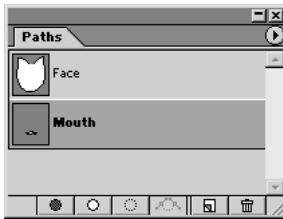
- 5 If you don't select the entire area the first time, Shift-click again on the mouth with the magic wand to add to the selection.
- 6 Click the Paths palette tab to bring the Paths palette to the front. Then click the Makes work path from selection button at the bottom of the palette.

The selection is converted to a path, and a new Work Path is created. You can convert any selection made with a selection tool into a path.



Note: If desired, use the tools you've learned to adjust the points on the path.

7 Double-click the Work Path, and name it **Mouth**; then click OK to save the path.




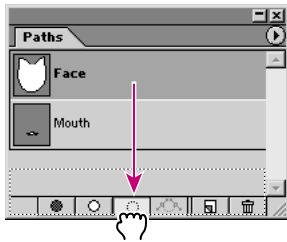
8 Choose File > Save to save your work.

Converting paths to selections

Just as you can convert selection borders to paths, you can convert paths to selections. With their smooth outlines, paths let you make precise selections. Now that you've drawn paths for the cat's face and mouth, you'll convert them to selections and apply a filter to the selection.

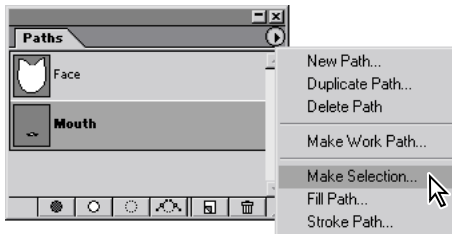
- 1 In the Paths palette, click the Face path to make it active.
- 2 Convert the Face path to a selection using either of the following methods:
 - Choose Make Selection from the Paths palette menu, and click OK.

- Drag the Face path to the Load Path as Selection button () at the bottom of the Paths palette.



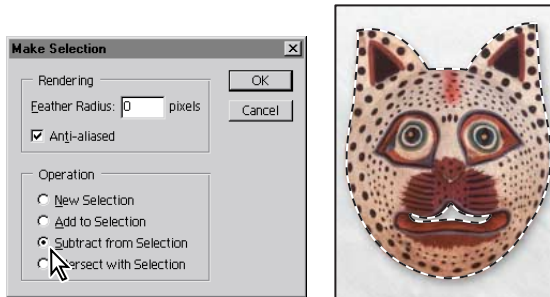
Next, you'll subtract the mouth selection from the face selection so that you can apply a filter without affecting the gray area of the background, which shows through the cat's mouth.

- 3 In the Paths palette, click the Mouth path; then choose Make Selection from the Paths palette menu.



- 4 In the Make Selection dialog box, select Subtract from Selection in the Operation section, and click OK.

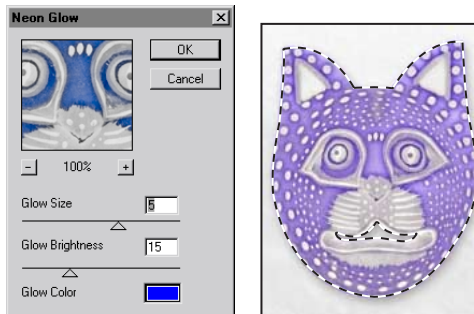
The Mouth path is simultaneously converted to a selection and subtracted from the Face selection.



Subtracting the mouth selection from the face selection *Result*

5 Before adding a filter to the mask, make sure that the foreground is set to white and the background is set to black. If necessary, click the Default Foreground and Background Colors button (■), and then click the Switch Foreground and Background Colors button (↕).

6 Choose Filter > Artistic > Neon Glow. Accept the defaults, and click OK to apply the filter.

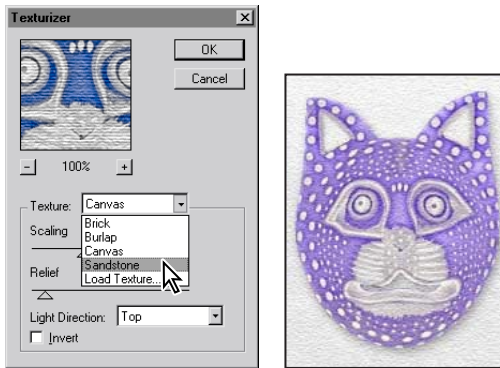


Neon Glow filter *Result*

The filter has been applied to only the mask area. As a final step, you'll apply a textured filter to the entire image, including the background.

7 Choose Select > Deselect to deselect everything.

8 Choose Filter > Texture > Texturizer. Choose the Sandstone option from the Texture menu, and click OK to apply the settings.



*Texturizer filter with
Sandstone option*

Result

9 Choose File > Save; then close the file.

You've completed the Basic Pen Tool lesson. Try drawing paths around different objects in your artwork to practice using the pen tool. With practice, you'll find that the pen tool can be invaluable for creating intricate outlines and selections.

Review questions

- 1 How do you modify individual segments of a path?
- 2 How do you select an entire path?
- 3 How do you add points to a path?
- 4 How do you delete points from a path?
- 5 When you drag with the pen tool to create a curved path, how does the direction in which you drag affect the curve?
- 6 How can the pen tool be useful as a selection tool?

Review answers

- 1 To modify individual segments of paths, you drag the anchor points on the path using the direct selection tool. You can also edit the shape of curved segments by dragging the direction points at the ends of the direction lines that extend from the anchor point of the curve.
- 2 To select an entire path, hold down Alt (Windows) or Option (Mac OS), and click the path using the direct selection tool. When an entire path is selected, all the anchor points are solid.
- 3 To add points to a path, you select the add-anchor-point tool hidden under the pen tool and then click the path where you want to add an anchor point.
- 4 To delete points from a path, you select the delete-anchor-point tool hidden under the pen tool and then click the anchor point you want to remove from the path.
- 5 The direction you drag with the pen tool defines the direction of the curve that follows.
- 6 If you need to create an intricate selection, it can be easier to draw the path with the pen tool and then convert the path to a selection.