Adobe®
Photoshop® CS6
onDemand

Steve Johnson
Perspection, Inc.
Acknowledgments

Perspection, Inc.

Adobe Photoshop CS6 On Demand has been created by the professional trainers and writers at Perspection, Inc. to the standards you’ve come to expect from Que publishing. Together, we are pleased to present this training book.

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Perspection
About the Author

Steve Johnson has written more than 70 books on a variety of computer software, including Adobe Photoshop CS5, Adobe Dreamweaver CS5, Adobe Flash Professional CS5, Adobe InDesign CS5, Adobe Illustrator CS5, Microsoft Windows 7, Microsoft Office 2010 and 2007, Microsoft Office 2008 for the Macintosh, and Apple Mac OS X Lion. In 1991, after working for Apple Computer and Microsoft, Steve founded Perspection, Inc., which writes and produces software training. When he is not staying up late writing, he enjoys coaching baseball, playing golf, gardening, and spending time with his wife, Holly, and three children, JP, Brett, and Hannah. Steve and his family live in Northern California, but can also be found visiting family all over the western United States.
We Want to Hear from You!

As the reader of this book, you are our most important critic and commentator. We value your opinion and want to know what we’re doing right, what we could do better, what areas you’d like to see us publish in, and any other words of wisdom you’re willing to pass our way.

As an associate publisher for Que, I welcome your comments. You can email or write me directly to let me know what you did or didn’t like about this book—as well as what we can do to make our books better.

Please note that I cannot help you with technical problems related to the topic of this book. We do have a User Services group, however, where I will forward specific technical questions related to the book.

When you write, please be sure to include this book’s title and author as well as your name, email address, and phone number. I will carefully review your comments and share them with the author and editors who worked on the book.

Email: feedback@quepublishing.com

Mail: Greg Wiegand
Que Publishing
800 East 96th Street
Indianapolis, IN 46240 USA

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Introduction

Welcome to Adobe Photoshop CS6 On Demand, a visual quick reference book that shows you how to work efficiently with Photoshop. This book provides complete coverage of basic to advanced Photoshop skills.

How This Book Works

You don’t have to read this book in any particular order. We’ve designed the book so that you can jump in, get the information you need, and jump out. However, the book does follow a logical progression from simple tasks to more complex ones. Each task is presented on no more than two facing pages, which lets you focus on a single task without having to turn the page. To find the information that you need, just look up the task in the table of contents or index, and turn to the page listed. Read the task introduction, follow the step-by-step instructions in the left column along with screen illustrations in the right column, and you’re done.

What’s New

If you’re searching for what’s new in Photoshop CS6, just look for the icon: New!. The new icon appears in the table of contents and throughout this book so you can quickly and easily identify a new or improved feature in Photoshop. A complete description of each new feature appears in the New Features guide in the back of this book.

Keyboard Shortcuts

Most menu commands have a keyboard equivalent, such as Ctrl+P (Win) or ⌘+P (Mac), as a quicker alternative to using the mouse. A complete list of keyboard shortcuts is available on the web at www.perspection.com.
Step-by-Step Instructions

This book provides concise step-by-step instructions that show you “how” to accomplish a task. Each set of instructions includes illustrations that directly correspond to the easy-to-read steps. Also included in the text are time-savers, tables, and sidebars to help you work more efficiently or to teach you more in-depth information. A “Did You Know?” provides tips and techniques to help you work smarter, while a “See Also” leads you to other parts of the book containing related information about the task.

Real World Examples

This book uses real world examples files to give you a context in which to use the task. By using the example files, you won’t waste time looking for or creating sample files. You get a start file and a result file, so you can compare your work. Not every topic needs an example file, such as changing options, so we provide a complete list of the example files used throughout the book. The example files that you need for project tasks along with a complete file list are available on the web at www.perspection.com.
Workshops

This book shows you how to put together the individual step-by-step tasks into in-depth projects with the Workshop. You start each project with a sample file, work through the steps, and then compare your results with project results file at the end. The Workshop projects and associated files are available on the web at www.perspection.com and queondemand.com.

Adobe Certification

This book prepares you for the Adobe Certified Expert (ACE) and Adobe Certified Associate (ACA) exams for Adobe Photoshop CS6. Each Adobe certification exam has a set of objectives, which are organized into broader skill sets. To prepare for a certification exam, you should review and perform each task identified with an ACE or ACA objective to confirm that you can meet the requirements for the exam. Information about the ACE and ACA programs are available in the back of this book. The ACE and ACA objectives and the specific pages that cover them are available on the web at www.perspection.com.
Get More on the Web

In addition to the information in this book, you can also get more information on the web to help you get up to speed faster with Photoshop CS6. Some of the information includes:

**Transition Helpers**

- **Only New Features.** Download and print the new feature tasks as a quick and easy guide.

**Productivity Tools**

- **Keyboard Shortcuts.** Download a list of keyboard shortcuts to learn faster ways to get the job done.

**More Content**

- **Photographs.** Download photographs and other graphics to use in your Photoshop documents.

- **More Content.** Download new content developed after publication.

You can access these additional resources on the web at [www.perspection.com](http://www.perspection.com).
Using the Paint, Shape Drawing, and Eraser Tools

Introduction

Adobe Photoshop supplies you with all types of adjustment and manipulation tools. In addition to image enhancement, Photoshop can also be a powerful application for designing from scratch. With the vast array of supplied brushes, tips, and shape drawing tools, Photoshop helps you produce any image, either enhanced or developed from scratch, that you might need for virtually any conceivable project.

Brushes come in all sizes and shapes, and can be controlled with a mouse or drawing tablet. Since the shape of the tip controls brush strokes, Photoshop gives you access to several sets of predefined brush tip shapes, or you can create your own customized sets. As for shape drawing tools, Photoshop doesn’t limit your creativity to just drawing circles and squares; it gives you instant access to dozens of predefined shapes. You can even create and save your own custom shapes. When it comes to Photoshop’s paint and drawing tools, your choices are limitless, based only on your knowledge of the available tools, and a creative imagination—the more you know, the more you can do with Photoshop.

And, when all the drawing is said and done, there will be a need for cleaning up. With the various Eraser tools that Photoshop provides, you can make quick work of touching up those small problem areas. Photoshop provides regular eraser tools, eraser tools that erase to a definable edge, and even eraser tools that target specific color values.

When enhancing an image, you might want to apply a gradient. Gradients can be something as simple as black and white, or as complex as one that contains the colors of the rainbow. Gradients can be applied to an image by completely covering the original image information, or they can be controlled through targeted selection, and creative uses of blending modes.

What You’ll Do

Select Foreground and Background Colors
Use the Brush and Brush Presets Panel
Modify the Brush Presets Panel
Select Brush Tip Sets
Adjust Brush Tips
Create and Save Customized Brush Tips
Work with the Brush, Airbrush, Mixer Brush, and Pencil Tools
Work with Auto Erase
Work with the Line and Shape Tools
Work with Shape Layers
Work with the Custom Shape Tool
Create and Save Custom Shape Sets
Use the Paint Bucket Tool
Work with the Eraser Tools
Work with the Magic Eraser Tool
Create and Apply Gradients
Create and Save Customized Gradients
Use the Color Replacement Tool
Selecting Foreground and Background Colors

Change the Active Foreground and Background Colors

Use any of the following methods:

- Select the Eyedropper tool on the toolbox, and then click anywhere in the active document to change the foreground color.
  - Hold down the Alt (Win) or Option (Mac) key, and then click to change the background color.
  - To specify the sample point, click the Sample list arrow on the Options bar, and then select an option: Current Layer, Current & Below (New!), All Layers, All Layers no Adjustments (New!), or Current & Below no Adjustments (New!).
  - Click on a color swatch in the Swatches panel to change the foreground color.
  - Hold down the Ctrl (Win) or ⌘ (Mac) key, and then click to change the background color.
  - Click the Foreground or Background thumbnail to choose the color’s destination. Create a color in the Color panel.
  - Click the Foreground or Background Color box to open the Color Picker dialog box, select a color or enter color values, and then click OK.

The Foreground and Background colors, located on the toolbox, are Photoshop’s way of identifying your primary painting color, as well as the color Photoshop uses in conjunction with the Background layer. When you select any of Photoshop’s painting or drawing tools, the color applied to the document will be the foreground color. Hence, it’s sometimes referred to as the active color. The Background color serves several functions—its primary role is to instruct Photoshop how to handle erasing on the Background layer. When you use an eraser tool on a layer, by default, the pixels are converted to transparency. However, when you use an eraser tool on the Background, something different happens. Since the Background does not support transparency, it replaces the erased pixels with the current background color.
Use Default and Switch the Foreground and Background Colors

1. Click the Default Foreground and Background Colors button to revert the foreground and background colors to their default values of black and white.

2. Click the Switch Foreground and Background Colors button to switch current colors.

**TIMESAVER** Press D to change the foreground and background colors to their default values of black and white, and press X to switch the current colors.

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**Did You Know?**

*You can add colors from the Color Picker to the Swatches panel.* Open the Color Picker dialog box, select the color you want to add to the Swatches panel, click Add To Swatches, type a name for the color, and then click OK.

*You can create sample color markers.* Click the Eyedropper or Color Sampler tool on the toolbox. In the document, hold down the Shift key (if using Eyedropper tool), and then click once to create a color marker. Information appears in the Info panel. You can have a maximum of four Color Markers in a single document. To reposition a marker, press the Ctrl (Win) or A (Mac) key, and then click and drag the marker to a new position, or drag it off the window to delete it.

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**For Your Information**

**Understanding Colors**

In Windows, you can use the Color dialog box, which displays basic and custom color squares and a color matrix with the full range of colors in the color spectrum, to help you select a color. You can enter RGB values for hue, saturation, and luminosity (also known as brightness) to specify a color. **Hue** is a pure color (one without tint or shade); the name of the color (red, green, etc.) is measured by its location on the color wheel. **Saturation** is a measure of how much white is mixed in with the color. A fully saturated color has vivid tones; a less saturated color is more of a washed-out pastel. **Luminosity** is a measure of how much black is mixed with the color. A very bright color contains little or no black. You can also change the hue by moving the pointer in the color matrix box horizontally; you can change the saturation by moving the pointer vertically, and the luminosity by adjusting the slider to the right of the color matrix box. On the Macintosh, you click one of the color modes and select a color, using its controls. You can select RGB values by selecting the color sliders at the top of the dialog box, then choosing RGB Sliders from the pop-up menu, and dragging the Red, Green, and Blue sliders. Or, you can enter values (color numbers) to select a color. You can select hue, saturation, and brightness (or luminosity) values by selecting Color Sliders, choosing HSB Sliders, then dragging the sliders or entering your own values.
Using the Brush and Brush Presets Panels

Photoshop introduced the Brush and Brush Preset panels in CS5. The Brush panel allows you to create and select individual brushes, while the Brush Presets panel allows you to select and use predefined or custom brush tip sets or individual brushes. In the Brush panel, the current painting engine configuration, with options—including Shape Dynamics, Scattering, Texture, Dual Brush, Color Dynamics, Transfer, Brush Pose (New!), Noise, Wet Edges, Build-up (New!), Smoothing, and Protect Texture—gives you control over brushes in ways that once were only available in programs like Adobe Illustrator.

To use the Brush or Brush Presets panel, you first need to select a brush tool, or a tool that requires the use of a brush, such as the Eraser tool, chosen from the toolbox, and then display the Brush or Brush Presets panel. You can click the Window menu, and then choose Brush or Brush Presets to display the panel. You can also click the Brush Panel button on the Options bar (with a brush tool selected) or Brush Presets panel, or click the Brush Presets button on the Brush panel. Photoshop includes brush presets from John Derry, a Corel Painter expert (New!).
Modifying the Brush Presets Panel

Change the Brush Presets Panel View

1. Select a Brush tool on the toolbox, and then select the Brush Presets panel.

2. Click the Brush Presets Options button, and then select from the available View options:
   - **Text Only.** Select to display all brush tips by their names.
   - **Small Thumbnail.** Select to display all brush tips using a small thumbnail.
   - **Large Thumbnail.** Select to display all brush tips using a large thumbnail.
   - **Small List.** Select to display all brush tips by their names and small thumbnail.
   - **Large List.** Select to display all brush tips by their names and large thumbnail.
   - **Stroke Thumbnail.** Select to display all brush tips with a stroke. (This is useful in determining how the brush will look when applied in the document.)

The Brush Presets panel comes in many forms; you can view brushes as strokes, or you can choose thumbnails, or even text descriptions. The form of the Brush Presets panel does not impact its performance, only how you view the available brush tips. Choose the version that best suits your current design needs, and then change the view as needed. When you select a brush, it becomes the default for that tool only. This gives you the ability to choose a default brush for each of the brush-specific tools.
The Brush Preset panel comes with a wide variety of predefined brush tip sets, including natural bristle, faux finish, and special effect brushes. Each set organizes specific brush tips by name. Since other Photoshop tools also use brush tips, it’s important to have the right tool (brush tip) for the right job. Using or making do with the wrong brush tip is akin to digging a swimming pool with a teaspoon. You wouldn’t paint a portrait with a house-painting brush, so don’t settle for anything less than the exact brush tip you need to get the job done.

Selecting Brush Tip Sets

1. Select a Brush tool on the toolbox, and then select the Brush Presets panel.
2. Click the Brush Presets Options button.
3. Click any of the predefined brush sets.
4. Click OK.

This replaces the current brush tips with the selected set, or you can click Append to add them to the current set.

Did You Know?

You can reset brushes back to the original default set. Click the Brush Presets Options button, click Reset Brushes, and then click OK.

You can draw straight lines using Photoshop’s brush tools. Holding the Shift key while dragging constrains the brush to a 90-degree line. To draw a straight line between two points, click once in the document window, move the mouse to another position, hold down the Shift key, and then click a second time. A straight line will be drawn between the first and second mouse clicks.
Adjusting Brush Tips

Adjust a Brush Tip

1. Select a Brush tool on the toolbox, and then select the Brush panel.
2. Click to select a specific brush tip.
3. Select from the various options:
   - **Brush Tip Shape.** Lets you modify the brush tip size (up to 5,000 pixels (New!)), angle, roundness, hardness, and spacing. You can also flip the brush shape along its x (left to right), or y (top to bottom) axis.
   - **Shape Dynamics.** Lets you randomly (jitter) generate different sizes, angles, and roundness for the brush tip.
   - **Scattering.** Lets you randomly scatter the shape, choose how many to use (Count), and randomly change the number (Count Jitter) as you draw.
   - **Texture.** Lets you select a predefined or custom texture, in place of a solid color.
   - **Dual Brush.** Lets you select a second brush.
   - **Color Dynamics.** Lets you key off of the active foreground and background colors with the brush tip; try the Apply Per Tip check box (New!).
   - **Transfer.** Adjusts the build-up of the paint or effect.
   - **Brush Pose.** Applies a rotation or tilt to the brush tip (New!); useful for painting with a mouse.
   - **Other Dynamics.** See Table.

Other Dynamics

<table>
<thead>
<tr>
<th>Dynamic</th>
<th>Purpose</th>
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</thead>
<tbody>
<tr>
<td>Noise</td>
<td>Generates random noise in the brush tip.</td>
</tr>
<tr>
<td>Wet Edges</td>
<td>Fades the edges of the drawn shape, similar to running a watercolor brush over a wet canvas.</td>
</tr>
<tr>
<td>Build-up (New!)</td>
<td>Enable airbrush style build-up effects.</td>
</tr>
<tr>
<td>Smoothing</td>
<td>Applies anti-aliasing to the drawn shapes, creating a smoother shape.</td>
</tr>
<tr>
<td>Protect Texture</td>
<td>Preserves texture pattern when applying brush presets.</td>
</tr>
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</table>
Bristle brushes simulate the effects of painting with a natural brush, such as watercolors and oils. When you use a bristle brush, it paints with vectors to resemble a natural brush stroke. When you select a bristle brush, you can set brush options, such as brush shape (either round or flat), brush size, length, density, thickness, and stiffness. If you want to see a visual representation of your changes, use the Toggle the Live Tip Brush Preview button on the panel. When you use a writing tablet and 6D pen, such as a Wacom Art Pen, with a bristle brush, the pen responds to pressure, bearing, rotation, and tilt.

Adjusting Bristle Brush Tips

Adjust a Bristle Brush Tip

1. Select a **Brush** tool on the toolbox, and then select the **Brush** panel.
2. Click to select a bristle brush tip.
3. To show or hide the bristle brush preview, click the **Toggle the Live Tip Brush Preview** button on the panel.
4. Select from the various bristle options:

   - **Shape**. Lets you select a bristle brush shape, such as Round or Flat (Point, Blunt, Curve, Angle, or Fan).
   - **Bristles**. Lets you modify the density of the bristle between 1% and 100%. The density is the number of bristles in a specified area of the brush neck.
   - **Length**. Lets you modify the length of the bristle between 25% and 500%.
   - **Thickness**. Lets you modify the thickness of the bristle from fine to coarse between 1% and 200%.
   - **Stiffness**. Specify the rigidness of the bristle between 1% to 100%. A lower value creates flexible bristles, while a higher value creates stiffer bristles.
   - **Angle**. Lets you modify the angle of the brush.
Creating Customized Brush Tips

Create a New Brush Tip

1. Open an image, scan an item, or select any of Photoshop's painting tools and create a shape for a new brush tip.

   **IMPORTANT** Since the color of a brush is determined when the brush tip is selected, create the brush tip using black or shades of gray.

2. Select the brush tip using any of Photoshop's selection tools.

   **IMPORTANT** Photoshop picks up any pixel information in the underlying layers, even white. If you want the brush to have a transparent background, make sure the areas surrounding the image are transparent.

3. Click the Edit menu, and then click Define Brush Preset.

4. Enter a name for the new brush preset.

5. Click OK.

   Open the Brush panel, and then scroll to the bottom of the list to access your newly created brush tip.

   Since the Define Brush Preset button picks up any background colors within the selection area, it always creates the brush tip in a blank layer.

Although Photoshop's Brush panel gives you many choices for brush tips, any good designer will tell you that no matter how many brush tips you have, you'll always want more. For example, you're working on a 100-year-old photograph, and you need a specific brush to add hair details to the blown-out areas of the image. You'll want to find a special type of brush that literally creates the illusion of wavy hair and add it to your collection of brush tips. Photoshop, in an effort to help keep you organized, gives you the ability to create your very own customized brush tips, and then save them later in organized sets.
Saving Customized Brush Tips

Save a Customized Brush Tip

1. Select a Brush tool on the toolbox, and then select the Brush Presets panel.
2. Create a set of customized brushes.
3. Click the Brush Presets Options button, and then click Save Brushes.
4. Type the name of the set.
5. Click the Save In (Win) or Where (Mac) list arrow, and then select where you want to save the brush set.
6. Click Save.

The brush tip is saved with the ABR extension.

Did You Know?

- You can access your customized sets directly from the Brush Options menu. When you save your customized brush set, put them in the Brushes folder, located in the Adobe Photoshop CS6/Presets folder. Brush sets saved here appear in the Brush Options menu along with the other Photoshop presets.
- You can create customized brush sets with the Preset Manager. Click the Edit menu, point to Presets, click Preset Manager, select the brushes you want, (use Shift or Ctrl (Win) or (Mac) to select) and then click Save Set.

Once a brush tip is created, it becomes part of the current set. However, the brush has not yet been permanently saved in Photoshop. Although the new brush tip will reappear every time you access the Brush panel, if you choose the option to reset the panel, the new brush will be lost. To keep brushes you must save them into customized sets; choose the default Brushes folder, so Photoshop can use them.
Photoshop’s Brush and Airbrush tools were designed to reproduce the visual effect of applying paint to a canvas. You have full control over the brush tip, color, size, opacity, and even the brush’s blending mode. Control over the image is achieved by using additional layers to hold the brush strokes—but remember, adding additional layers increases the file size of a Photoshop document. Since layers have their own individual options, such as opacity, fill, and blending modes, you achieve even greater control over the final design by giving brush strokes their own layers. Once the brush stroke is to your liking, you can always merge the brush-stroke layer into the image to conserve file size.

For Your Information

Using the Brush and Airbrush Tools

The Brush and Airbrush tools look the same, but they perform quite differently. The Brush tool maintains a specific opacity; for example, if you choose 50% opacity, the Brush maintains that opacity no matter how many times you pick up your pen and start again. However, if you release and drag again over the same area, the Brush adds another 50% application of ink to the image, producing a more saturated result. The Airbrush tool works by accumulation—dragging the image produces a brush stroke based on the opacity of the brush and the speed with which you move the tool across the image. If you hold the Airbrush tool in one position, the ink color will slowly increase until it reaches 100%, just like a real airbrush.
With the Mixer Brush tool, you can define multiple colors on a single brush tip, and then mix and blend them together with the underlying hues on your canvas. With a photo, you can use a dry, empty brush to blend the existing colors while at the same time adding a painting effect to the image. Mixer Brush options on the Options bar allow you to control the wetness of the brush, the load rate to add paint to the brush, the mixing rate between the brush and canvas color, and whether the brush is refilled, cleaned, or both after each painting stroke.

**Work with the Mixer Brush Tool**

1. Select the **Mixer Brush** tool on the toolbox.
2. Select a brush tip on the Options bar or from the Brush panel.
3. Select a mixing color.
4. Click the **Current Brush Load** list arrow, and then select **Load Brush**, **Clean Brush**, or **Load Solid Colors Only**.
5. Click the **Load the Brush After Each Stroke** or **Clean the Brush After Each Stroke** button.
6. Click the **Blending Combinations** list arrow, and then select a preset.
7. Specify a percentage (1% to 100%), or click the list arrow, and then drag the slider for any of the following Mixer Brush options on the Options bar:
   - **Wet**: Controls the wetness of the brush.
   - **Load**: Controls the load rate to add paint to the brush.
   - **Mix**: Controls the mix rate between the brush and canvas color.
   - **Flow**: Controls the amount of ink supplied to the brush.
8. Drag within the image to paint.
The Pencil tool is exactly what its name implies…a pencil. The Pencil tool is limited to hard brush tips of any size or shape, and creates freeform lines using the current foreground color. In fact, the major difference between the Pencil and Brush tools is the Pencil tool’s inability to draw anything but a hard-edged line. A unique feature of the Pencil tool is its ability to switch between the current foreground and background colors using the Auto Erase feature.

Did You Know?

You can use the Pencil tool to create calligraphy lettering. Select the Pencil tool, click black as your painting color, and then click one of the oblong brush tips on the Options bar. If you own a drawing tablet, use the tablet with the Pencil tool to create beautifully formed calligraphy letters.

Work with the Pencil Tool

1. Select the Pencil tool on the toolbox.
2. Click the Brush Preset Picker list arrow, and then click a brush tip.
3. Click the Mode list arrow, and then select a blending mode.
4. Enter an Opacity percentage value (1% to 100%).
5. Drag the Pencil tool across the active document.
The Auto Erase feature lets you automatically switch the Pencil tool’s painting color using the current foreground and background color swatches. The trick is where you start drawing the line. If you start dragging the brush tip from a new location in the document, the Pencil tool creates a line in the active foreground color. If you then place the brush tip on a previously drawn line and drag, the Pencil tool creates a new line in the active background color. Since the Auto Erase feature doesn’t really erase anything, it will perform exactly the same way on a transparent layer as it does on the background layer.

**Did You Know?**

*You can draw straight lines with the Pencil tool.* Click once in the document to create a black dot, move to another position, hold down the Shift key, and then click again. When you hold down the Shift key, the Pencil tool creates a straight line between the two mouse clicks.
The Line tool lets you draw lines by dragging from one point in the active document and releasing in another. You can draw lines at precise 45- or 90-degree angles by holding down the Shift key as you drag. Select the Line tool, or if you already have another drawing tool selected, you can choose the Line tool from the toolbox. Then configure the Line tool using the Options bar. It's also a good idea to create the lines in a separate layer. That way, once the lines have been drawn, it's as easy as selecting the Move tool and repositioning them where you want them.

**For Your Information**

**Using the Line Tool**

The Line tool can be used to create customized guidelines for those projects that require something other than vertical or horizontal guidelines. Just create a new layer, and then select the Line tool. Choose a line weight (width) of one or two pixels, select a drawing color that contrasts with the image, and then draw the required guides. When you’re finished, lock the layer, and use the visual guides to complete your project. Hide the layer when it’s not needed, and finally, delete the layer when you’re done with the job. One more thing—remember to turn off the Arrowheads option.
Creating standard shapes, such as polygons or rectangles with rounded corners, used to be a hassle. That is, until Photoshop released its Standard Shape drawing tools. Now, it’s a simple matter of selecting the correct tool, choosing a color, and then drawing the shape. As with any of Photoshop’s drawing functions, control is maintained with the use of additional layers. Photoshop’s standard shapes include rectangles, rounded rectangles, ellipses, and polygons. Each one of the shape tools comes with additional options to control exactly how the shape appears when drawn.

**Work with the Shape Tool**

1. Select the **Rectangle, Rounded Rectangle, Ellipse,** or **Polygon** tool on the toolbox.
2. Click the **Tool Mode** list arrow, and then click **Pixels** to create raster shapes in the foreground color.
3. Click the **Settings** button, and then select from the following options:
   - **Unconstrained, Fixed Size, Proportional, and From Center.** (Rectangle, Rounded Rectangle, Ellipse)
   - **Square.** (Rectangle, Rounded Rectangle)
   - **Circle.** (Ellipse)
   - **Radius, Smooth Corners, Star, Indent Sides By, and Smooth Indents.** (Polygon)
4. Click the **Mode** list arrow, and then select a blending mode.
5. Enter an **Opacity** percentage value (1% to 100%).
6. Select the **Anti-alias** check box to create a visually smoother image.
7. Drag in the document window to create the shape; the cursor displays width and height (**New!**).

**IMPORTANT** Maintain control over your design by drawing shapes in separate layers.
Having the ability to draw a perfect polygon or rounded-corner rectangle is nice; however, Photoshop went way beyond standard shapes when it introduced the Custom Shape tool. Photoshop now comes packaged with dozens of predesigned shapes, or you can even create your own. User-defined shapes can be made from literally any vector object. For example, a company logo can be converted to a custom shape. Custom shapes have many time-saving applications. As previously mentioned, a company logo, if used frequently, is only a mouse click away. Any vector form, outline, or shape used on a recurring basis, can be converted to a custom shape and saved for future use. Select the Custom Shape tool, and then configure the shape using choices from the Options bar.

Work with the Custom Shape Tool

1. Select the Custom Shape tool on the toolbox.
2. Click the Tool Mode list arrow, and then click Pixels to create raster shapes in the foreground color.
3. Click the Settings button, and then select from the following options: Unconstrained, Defined Proportions, Defined Size, Fixed Size, or From Center.
4. Click the Shape list arrow, and then select a shape from the available options.
5. Click the Mode list arrow, and then select a blending mode.
6. Enter an Opacity percentage value (1% to 100%).
7. Select the Anti-alias check box to create a visually smoother line.
8. Drag in the document window to create the customized shape.
Working with Shape Layers

Create a Shape Layer

1. Select a shape tool or a pen tool on the toolbox.
2. Click the Tool Mode list arrow, and then click Shape to create raster shapes in the foreground color.
3. Specify the following options:
   - **Fill.** Select a fill color, gradient, or pattern and related options (New!).
   - **Stroke.** Select a stoke color, gradient, or pattern and related options (New!).
   - **Stroke Width.** Specify a stroke point size (New!).
   - **Stroke Type.** Specify a stroke style type (New!). Select a style, such as dashed or dotted. You can also specify the stroke align position, caps, or corners. Click More Options for additional settings.
4. Click the Settings button, and then select from the following options: Unconstrained, Defined Proportions, Defined Size, Fixed Size, or From Center.
5. Drag in the document window to create the shape layer.
   - To constrain proportionally, hold down the Shift key. To draw from center, press Alt (Win) or Option (Mac).

With any of the shape drawing tools, you can use Photoshop's extensive layer effects options to colorize the shape, add a drop shadow or bevel, or even apply a gradient or pattern to the shape. You can change the fill (New!) and stroke (New!) with a color, gradient, pattern, or none. For strokes you can also apply pre-built styles as well as specify the align position, caps, and corners to create and save your own stroke styles (New!). You can use the Combine (Add), Subtract, Intersect, or Exclude options on the Paths Operation menu to modify the current shape on a selected layer in the Layers panel. For example, you can create a doughnut shape using the Subtract From Shape Area option.
Work with a Shape Layer

1. Select the Path Selection tool on the toolbox.

2. Click or drag a marquee to select the shapes you want to work with.

3. To move shapes, point to the shape, and then drag to reposition it in another location.

4. To modify shapes on the current shape layer, click the Path Operation button on the Options bar to create on a new layer, or combine (add), subtract, intersect, exclude overlapping, or merge shapes.

5. To change the style of the selected shape layer, use the formatting options on the Options bar.

See Also

See “Arranging Shape Layers” on page 240 for more information on aligning and arranging elements on a shape layer.
Arranging Shape Layers

After you create a shape layer, you can use the alignment and arrangement options (New!) to change shape position and stacking order on the layer. With the alignment options, you can position shapes to a specific edge or center or distribute them horizontally or vertically. You can align shapes to the canvas or to the current selection. With the arrangement options, you can change the order in which the shapes stack on top of each other. If you’re a web designer, you find the Align Edges option a help. When you work with pixels (not points), the Align Edge option aligns all the shape layers to internal pixel grid, which ensures sharp outlines.

Arrange Elements on a Shape Layer

1. Select the Path Selection tool on the toolbox.
2. Select the shapes on the layer you want to arrange.
3. To align shapes to the pixel grid, select the Align Edge check box on the Options bar.
4. To use alignment settings, select the following options:
   - **Align To Selection.** Toggles on and off; select to align shapes to current selection.
   - **Align To Canvas.** Toggles on and off; select to align shapes to the canvas edges.
   - **Alignment.** Select a command to align to edges or center.
   - **Distribution.** Select a command to distribute horizontally or vertically to width or heights.
5. To use arrangement settings, select the following options:
   - **Bring Shape To Front.** Brings shape to the top of the stack.
   - **Bring Shape Forward.** Brings shape one level to the top.
   - **Bring Shape To Back.** Brings shape to bottom of the stack.
   - **Bring Shape Backward.** Brings shape one level to the bottom.
Creating a Custom Shape

Create a Custom Shape

1. Open a document that contains the vector image you want to convert into a shape, or create a shape using any of Photoshop’s vector drawing tools.
2. Click the Edit menu, and then click Define Custom Shape.
3. Enter a name for the new shape.
4. Click OK.

The shape appears as a thumbnail at the bottom of the active Custom Shapes panel.

Did You Know?

You can move Photoshop shapes into other vector programs, such as Illustrator, FreeHand, and even Flash. Click the File menu, point to Export, and then click Paths To Illustrator. Name the new document, and then click Save.

Custom shapes can be created from anything you choose, and the process is quick and simple. You just create the shape, select the shape, and name the shape. That’s it. Since shapes are vector images, they’re resolution-independent, which means you can draw them at any size without impacting image quality. Once custom shapes are saved, they can be accessed by opening a document, selecting the Shape tool, and choosing your new shape from the Custom Shapes panel.
Creating customized sets of shapes is an excellent way to get organized. The next time you need a specific shape all you have to do is select the shape from your organized sets. Organization can save you time, but it also lends a sense of consistency to designs. Using the same customized shapes repeatedly helps to tie the elements of a design together, and Photoshop gives you the perfect way to maintain that consistency with customized shape sets.

**Saving Custom Shape Sets**

1. Select the **Custom Shape** tool on the toolbox.
2. Click the **Shape** list arrow to see a list of the current shapes.
3. Create new shapes, and then add them to the current list.

**IMPORTANT** As you create new shapes, if there are some you don’t like, delete them. Right-click the shape, and then click **Delete Shape**.

4. To add preexisting shapes, click the **Options** button, and then click **Load Shapes**, or choose from the available predefined shape lists.
5. Click the **Options** button, and then click **Save Shapes**.
6. Enter a descriptive name for the new set in the **File Name** (Win) or the **Save As** (Mac) box.
7. Click the **Save In** (Win) list arrow or **Where** (Mac) popup, and then select a location to save the new shape set.

When you save shapes in the Custom Shapes folder (default location), your customized shape appears at the bottom of the Shapes Options menu.

8. Click **Save**.

The custom shape file is saved with the CSH extension.
Using the Paint Bucket Tool

1. Select the **Paint Bucket** tool on the toolbox.
2. Click the **Fill** list arrow, and then select an option:
   - **Foreground.** Fills a selected area with the current foreground color.
   - **Pattern.** Fills a selected area with a pattern.
3. Click the **Pattern** list arrow, and then select a predefined fill pattern. This option is available if you select Pattern as a fill option.
4. Click the **Mode** list arrow, and then select a blending mode.
5. Enter an **Opacity** percentage value (1% to 100%).
6. Select a **Tolerance** value (0 to 255). The Tolerance value influences the range that the Paint Bucket uses to fill a given area.
7. Select the **Anti-alias** check box to create a visually smoother line.
8. Select the **Contiguous** check box to restrict the fill to the selected area.
9. Select the **All Layers** check box to fill the color range information from all the image’s layers.
10. Click the **Paint Bucket** tool cursor on the area to be changed.

The Paint Bucket tool is not new; in fact, it's been around almost as long as Photoshop. The Paint Bucket’s primary function is to fill an area with the active foreground color, but that’s not all it’s capable of doing. The Paint Bucket tool can fill areas with a selected pattern and, much the same way that the Magic Wand tool selects image information, the fill area can be controlled by the shift in brightness of image pixels. Combine those features with the ability to change the Paint Bucket’s blending mode or opacity, and you have a tool with a lot of horsepower.
Photoshop’s basic Eraser tool converts image pixels in a layer to transparent pixels. While the primary function of the Eraser tool has not changed, the tool itself has been greatly improved. For example, you can use the Eraser tool to remove a specific color or to erase around the edge of an object. You can instruct the Eraser tool to remove a specific color while protecting another color and at the same time, increase or decrease the tool’s tolerance (the range of selection). If you use the Eraser tool on a layered document, the tool will erase to transparency. If the Eraser tool is used on a flattened document (flattened documents do not support transparency), the Eraser tool will use the active background color to perform the erasure. As you can see, the eraser tools do more than blindly erase image information. As you master the eraser tools, you just may find those complicated eraser jobs becoming easier and easier. The Background Eraser tool lets you select specific colors within an image and erase just those colors.

**Use the Basic Eraser Tool**

1. Select the **Eraser** tool on the toolbox.
2. Click the **Brush** list arrow, and then select a brush tip.
3. Click the **Erasing Mode** list arrow, and then click **Brush**, **Pencil**, or **Block**.
4. Enter an **Opacity** percentage value (1% to 100%) to determine how much the eraser removes from the image.
5. Enter a **Flow** percentage value (1% to 100%) to determine the length of the eraser stroke.
6. Click the **Airbrush** button to change the solid eraser stroke of the eraser to that of an airbrush.
7. Select the **Erase To History** check box to temporarily turn the Eraser into a History Brush.
8. Drag the Eraser over an image layer to convert the image pixels to transparency.
**Use the Background Eraser Tool**

1. Select the Background Eraser tool on the toolbox.

2. Click the Brush list arrow, and then select a brush tip.

3. Click one of the Sampling buttons (determines how the Background Eraser selects the color range):
   - **Continuous.** Continually selects a color range as you drag the Eraser tool across the image.
   - **Once.** Samples a color range when you first click your mouse.
   - **Background Swatch.** Only erases the active background color.

4. Click the Limits list arrow, and then click how far you want the erasing to spread:
   - **Discontiguous.** Lets the Eraser tool work with all similar color range pixels throughout the image.
   - **Contiguous.** Restricts the Eraser tool to the selected color range, without moving outside the originally sampled area.
   - **Find Edges.** Looks for a shift in color range and attempts to erase to the visual edge of the image.

5. Select a Tolerance percentage value (1% to 100%). The higher the tolerance, the greater the range.

6. Select the Protect Foreground Color check box to prevent that color from being erased.

7. Drag in the image to erase.

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**For Your Information**

**Using the Background Eraser Tool**

The Background Eraser tool erases an image by converting the image pixels to transparency. If you attempt to use the Background Eraser tool on a flattened image, the tool will automatically convert the flattened background into a normal layer. Photoshop is actually making an assumption that if you’re using the Background Eraser tool, you obviously need the image to be on a layer that supports transparency, not a background layer.
The Magic Eraser tool functions the same way as the Magic Wand selection tool, except that instead of selecting an area, it erases it. The Magic Eraser tool works on any traditional Photoshop layer, as well as the Background layer. Clicking with the Magic Eraser tool converts image pixels into transparent pixels. Since the Background layer does not support transparency, using the Magic Eraser tool causes Photoshop to convert the Background into a traditional layer. The click position for the Magic Eraser tool is the reference point from which the erase takes place. The Magic Eraser tool erases all contiguous pixels (those touching each other) that are within the set tolerance level, which is how great of a variation in pixel color you can have to be included in the erase.

### Work with the Magic Eraser Tool

1. Select the Magic Eraser tool on the toolbox.
2. Enter a Tolerance value (0 to 255). The higher the value, the greater the range the Magic Eraser erases.
3. Select the Anti-alias check box to create a visually softer eraser (useful when dealing with intensely rounded or curved selections).
4. Select the Contiguous check box to select adjacent pixels within the active document.
5. Select the Sample All Layers check box to sample image information from all layers (Photoshop then treats the visual image as a composite).
6. Click within the active document.

The Magic Eraser tool, depending on the options you choose, samples the pixels directly under the tool and uses that data to create a range for erasing image information.
Chapter 9 Using the Paint, Shape Drawing, and Eraser Tools

Creating and Applying Gradients

Create a Standard Gradient

1. Select the **Gradient** tool on the toolbox.
2. Click the **Gradient** list arrow, and then select from the available gradients.
   - The preset gradients include Foreground to Transparent, Chrome, Spectrum, Transparent Rainbow, Transparent Stripes, and Neutral Density.
3. Select one of the following gradient types from the five icons:
   - Linear, Radial, Angle, Reflected or Diamond.
4. Click the **Mode** list arrow, and then select a blending mode.
5. Enter an Opacity percentage value (1% to 100%).
6. Select the **Reverse** check box to reverse the color order of the selected gradient.
7. Select the **Dither** check box to visually create a smoother transition between gradient colors.
8. Select the **Transparency** check box to create gradients using a gradient mask (allows for transparency in the gradient).
9. Drag in the image to create a gradient.

Adding Predefined Gradients

To add a predefined gradient, you must first select the Gradient tool. Click the Gradient Picker button, located on the Options bar, to use one of the available gradient sets. Choose to append the new gradients to the existing list, or click OK to replace the existing gradients with the new ones.
Creating and Saving Customized Gradients

Customized gradients are easy to create and essential when you just can’t find what you want in Photoshop’s predefined sets. It doesn’t matter how many gradients Photoshop provides for you, there will always be that one instance where they just don’t do the required job. With just a few clicks of your mouse, you can create your own customized gradients. You can start with one of Photoshop’s gradients and modify it to your needs. You can also start completely from scratch; the choice is yours, and so are the rewards of creating that one-of-a-kind stunning gradient you can use for your current and future projects.

Create and Save a Customized Gradient

1. Select the Gradient tool on the toolbox.
2. Click the thumbnail of the active gradient on the Options bar to open the Gradient dialog box.
3. Select a gradient from the available options that is close to what you want to create.
   - The preset gradients include Foreground to Transparent, Chrome, Spectrum, Transparent Rainbow, Transparent Stripes, and Neutral Density.
4. Enter a name for the new gradient.
5. Click New.
   - A thumbnail (copy of the selected gradient) appears at the bottom of the list.
6. Click the Gradient Type list arrow, and then select one of the following:
   - Solid. Uses solid colors for the gradient.
   - Noise. Uses noise to distribute the colors.
Click the Smoothness list arrow, and then select one of the following:

- **Smoothness.** A percentage value (0% to 100%) that determines how smoothly the colors of the gradient blend together (available when the Solid option is selected).

- **Roughness.** A percentage value (0% to 100%) that determines how much noise to introduce into the gradient colors (available when the Noise option is selected).

To add Opacity Stops, click above the gradient line; to remove Opacity Stops, drag the stop away from the line.

To add Color Stops, click below the gradient line; to remove Color Stops, drag the stop away from the line.

Click on an Opacity Stop, and then enter an Opacity percentage (0% to 100%), and a Location percentage (0% to 100%) for the stop to place it on the line.

Click on a Color stop, and then select a color, and a Location percentage (0% to 100%) for the stop to place it on the line.

Click Delete to delete the selected opacity or color stop.

Click Save to save the new gradient set.

The set will include the new gradients, and all the gradients that appear in the Presets panel.

Click OK.

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For Your Information

**Creating a Customized Gradient**

Gradients serve many purposes. They can be used to jazz up a shape drawn with Photoshop’s drawing tools or they can be applied to an entire document and used as a background on a web page, brochure or newsletter. Whatever you use gradients for, remember that they are powerful image elements. Use gradients to attract attention to a document, but don’t use them if they draw people’s eyes away from the main elements of the image. It will be a small consolation to know that your fantastic marketing graphic attracted attention, but everyone was so focused on your special effects and gradients, they forgot to buy what you were selling. Remember, it’s always about the message. An image is worth a thousand words…let the image tell its story.
The Color Replacement tool lets you replace a specific color in your image. For best results use soft brushes with this tool to help blend the colors into the original image. Have you ever captured that perfect picture of a family member or friend, only to find they have red eyes? Or maybe there’s a part of your image where the color draws attention away from the focal point. Either way, the Color Replacement tool is a great feature that allows you to take control of the final image.

**Using the Color Replacement Tool**

1. **Select the Color Replacement tool** on the toolbox.
2. **Select a Brush tip** on the Options bar.
3. **Select from the available Sampling options:**
   - **Continuous.** Samples colors continuously as you drag.
   - **Once.** Replaces the targeted color only where you click.
   - **Background Swatch.** Erases areas matching the background.
4. **Select from the available Limits options:**
   - **Discontiguous.** Replaces the sampled color under the pointer.
   - **Contiguous.** Replaces connected areas containing the sampled color and preserves the sharpness of shape edges.
   - **Find edges.** Limits painting of the replacement color within an object as defined by its edges.
5. **Enter a Tolerance percentage value** (0% to 255%).
6. **Select the Anti-alias check box** for a smoother edge on areas you correct.
7. **Select a foreground color** to use to replace the unwanted color.
8. **Drag in the image over the color you want to replace.**
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