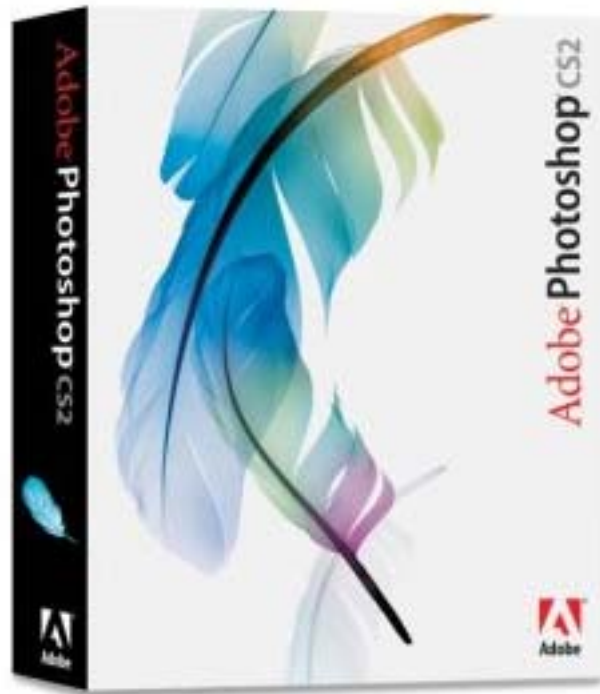




A Quick-Start Guide to Using Photoshop CS2

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Introduction

Welcome to Photoshop CS2 — a software program used by photography, graphics and design professionals around the world. This tremendously powerful program offers a host of features and can create remarkable images. But, despite its use by professionals, you don't have to be intimidated. After learning a few simple principles, you'll find yourself able to create new images and manipulate existing ones. This tutorial is designed to teach you those basics.

For the purposes of this training, it is assumed that you are familiar with computers and are comfortable in a Windows XP environment.

Before diving in to the software itself, it is important to review a few fundamentals of digital graphics. In general, there are two type of images: bitmap and vector. Bitmap (or raster) images are made up of individual pixels (tiny boxes) in a grid that vary in color and shade. These pixels combine to create the lines and images you see on your computer.

Because of this, bitmap images are resolution-dependent. That means, if you zoom in, you will see the jagged edges of individual pixels (*see Illustration 1.1*). Think of an impressionist painting. Up close you see dots or individual strokes. From an appropriate distance, you can discern an image. Because they are resolution-dependent, it is difficult to increase or decrease the size of bitmap images without impacting their quality. All scanned images and all images downloaded from a digital camera are bitmap images.



In contrast, vector images are not created from individual pixels. Their shapes are described by mathematical formulas. Each individual line is made up of a vast collection of individual points connected by straight lines or by a few control points joined by bezier curves. Because the shapes are math dependent, the image can be enlarged or reduced without losing quality.

Adobe Photoshop CS2 works with bitmap images. Another of the company's products, Adobe Illustrator, is capable of creating and manipulating vector graphics.

Now, it's time to learn about Photoshop!

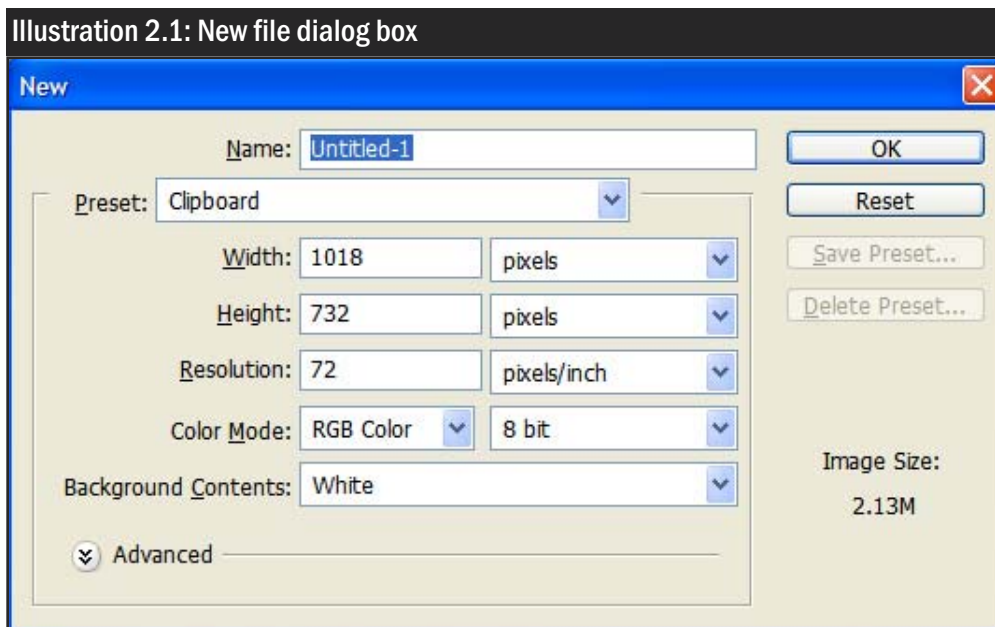
File Management

Opening Photoshop CS2

To open the program, click on the **START** button at the lower left of the screen and click **ALL PROGRAMS** to see a listing of all the software installed on the computer. Depending on how your software is installed, you may see **PHOTOSHOP** listed in the menu that appears. If so, click the program name to launch it. If you do not see it listed separately, look for the name **ADOBE** and click on it to reveal the programs within that folder.

Creating a new file

To create a new document, go to the **FILE** menu and select **NEW**. A dialog box will appear (*see Illustration 2.1*):



From this dialog box, you can enter a file name in the **NAME** field.

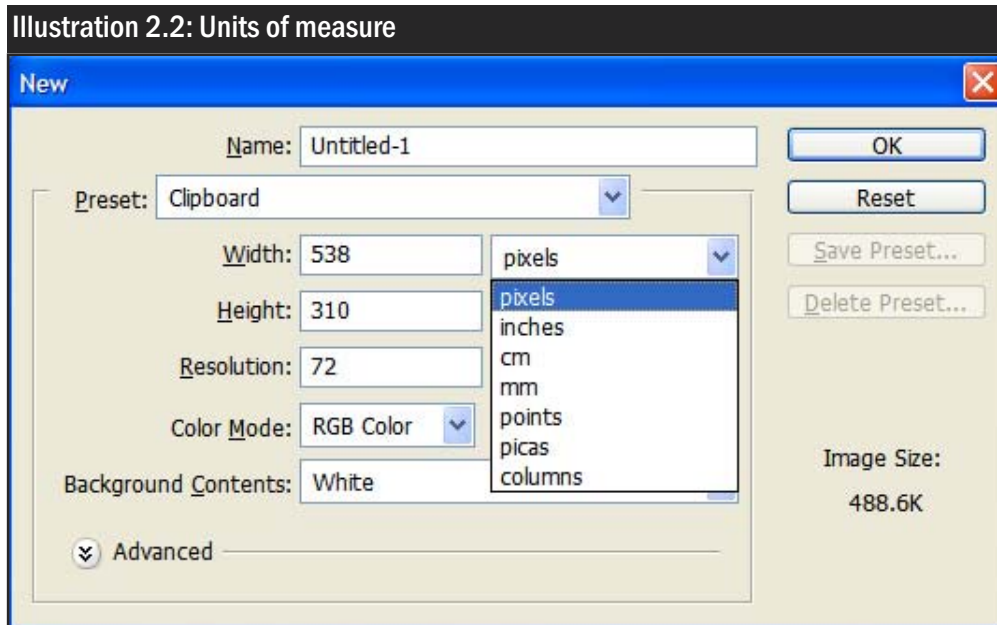
You also can set the size of the canvas (work space) by entering numerical values in the width and height fields. You can enter values using several different units — pixels, inches, centimeters, millimeters, points, picas and columns. These units can be accessed by clicking the down arrow next to the unit of measure (*see Illustration 2.2*). For those not familiar with the various units of measure:

$$1 \text{ inch} = 6 \text{ picas} = 72 \text{ points} = 72 \text{ pixels} = 25.4 \text{ mm} = 2.54 \text{ cm}$$

Keyboard Shortcut

Open a new file by pressing **CTRL+N**.

Illustration 2.2: Units of measure



If you are creating images for use primarily on the web or a PowerPoint presentation, you will want to use pixels as your unit of measure. If you are creating images for print purposes, you might want to use a different unit of measurement.

While it is best to adjust these units of measurement before you begin, you may change units later using the image size dialog box.

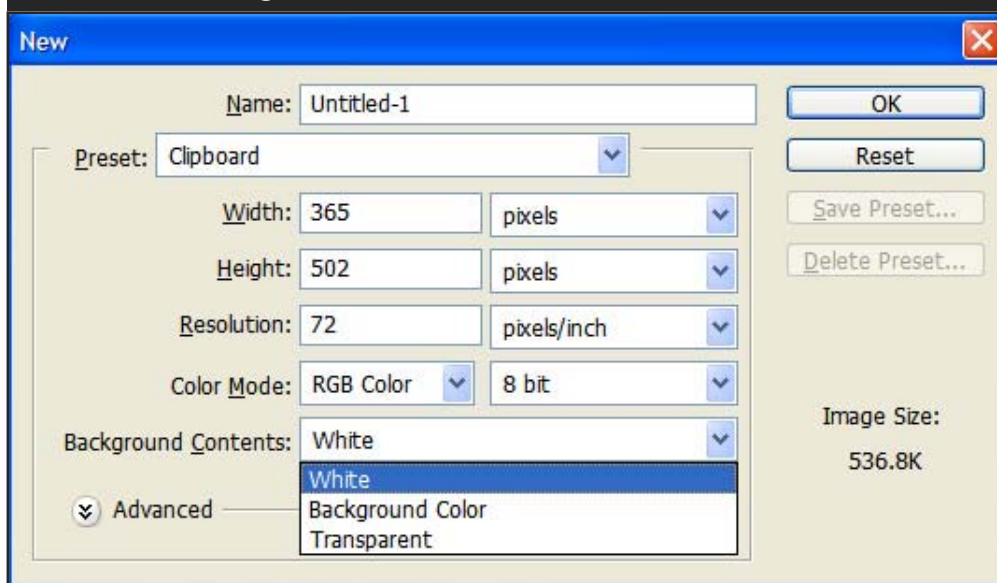
You also can set the resolution for the file by typing a numerical value into the **RESOLUTION** field. For web or PowerPoint images, use 72 pixels/inch. For standard printing purposes, you should consider using a resolution of 100-150 pixels/inch. For high-quality printing purposes, use a minimum resolution of 300 pixels/inch. Remember: The higher the resolution, the larger the file size.

For internet or presentation purposes, use RGB Color rather than CMYK. This can be selected in in the **COLOR MODE** field.

The choices regarding canvas size, resolution, and color mode will affect the new file that appears. One of the final selections you can make from this dialog box is to select the color of the background. The available options can be selected by clicking the down arrow next to the **BACKGROUND CONTENTS** field. The three options available (see Illustration 2.3) are **WHITE** (produces a white colored background), **BACKGROUND COLOR** (uses whatever color has been selected as the background color chip in the tool bar), and **TRANSPARENT** (produces a transparent background which will show up as a white and gray checkerboard pattern).

Once you have made all the appropriate selections, click **OK** to create your file.

Illustration 2.3: Background contents



Opening an existing file

To open an existing image file:

1. Go to the **FILE** menu and select **OPEN**. The file open dialog box will appear.
2. Select the graphics file you want to open. (Browse for files using this dialog box as you would with any Windows-based program.)
3. Click **OPEN**.



You also can open an image file by right-clicking on the file on the desktop or in a Windows folder and selecting **OPEN WITH** and then **PHOTOSHOP CS2**

Keyboard Shortcut

To open a file, press **CTRL+O**.

Rotating the canvas

Occasionally, you will need to rotate an image after you open it. To rotate an image:

1. Go to the **IMAGE** menu and select **ROTATE CANVAS**.

2. Select one of the following options: 180°, 90° CW (clockwise), 90° CCW (counter-clockwise), ARBITRARY, FLIP CANVAS HORIZONTAL, or FLIP CANVAS VERTICAL.

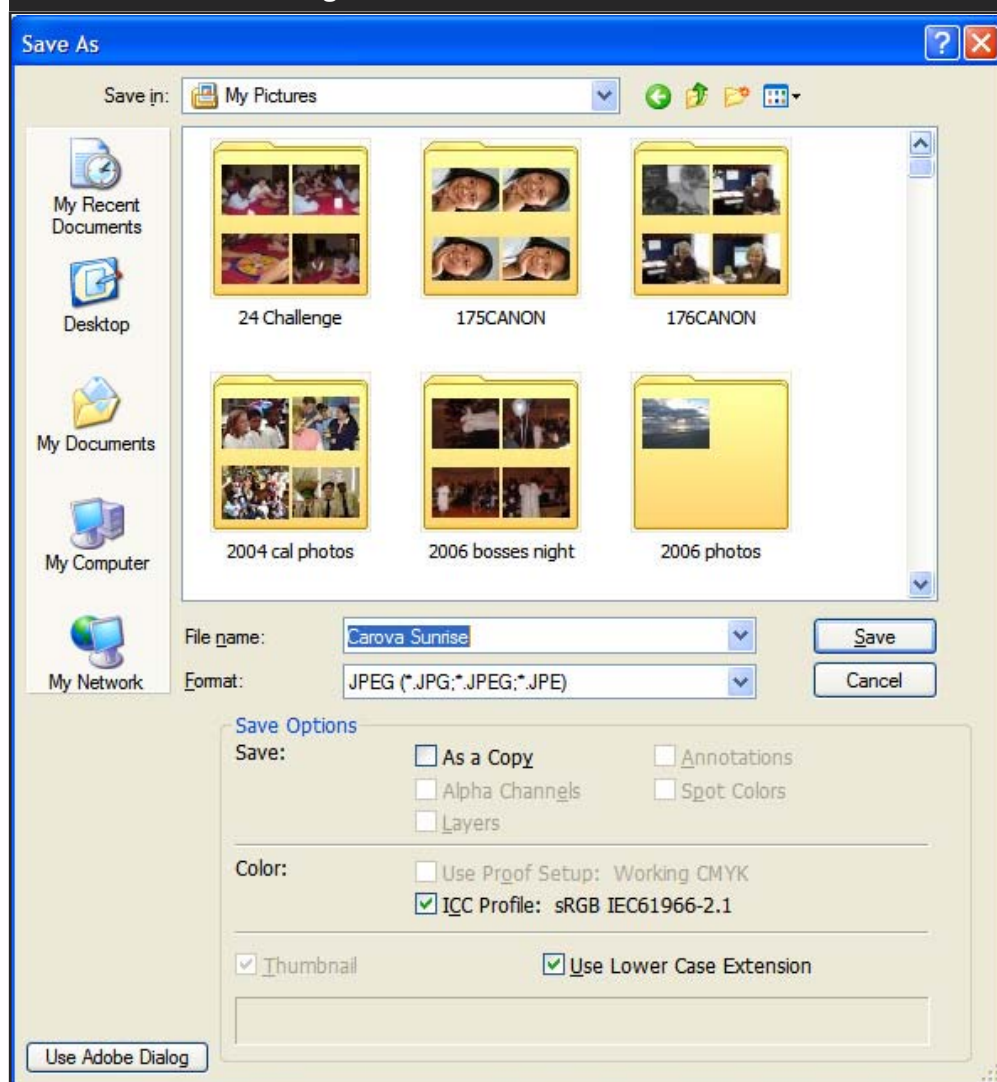
3. Go to the FILE menu and select SAVE to preserve the new orientation in your file.

Saving a file

To save an image file:

1. Select SAVE AS from the FILE menu. The save open dialog box will appear (see *Illustration 2.4*).

Illustration 1.4: Save dialog box



Keyboard Shortcut

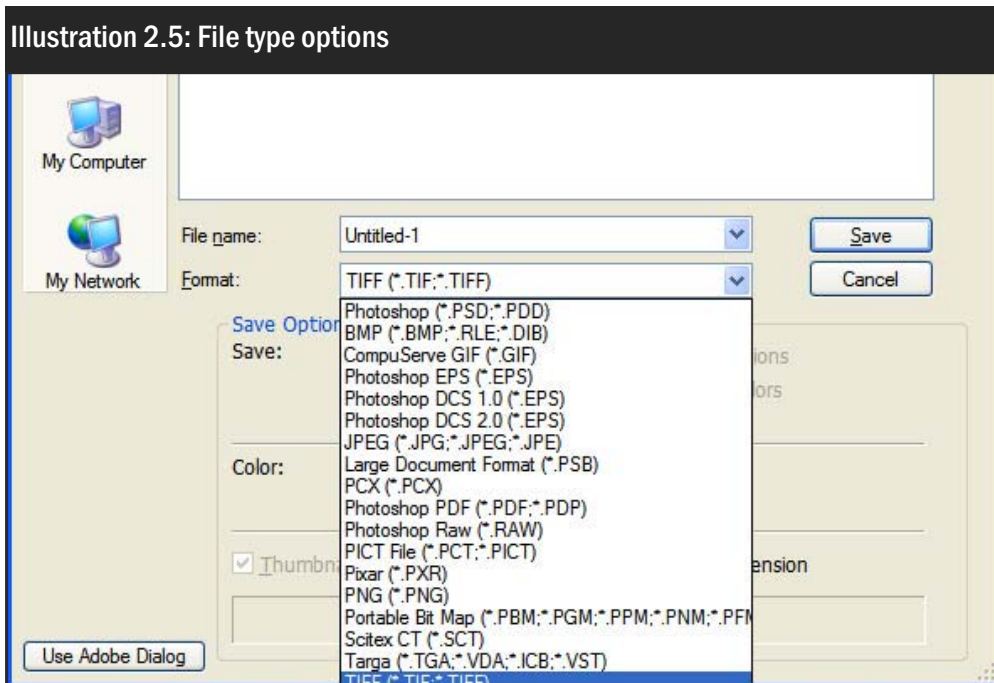
Save the file by pressing CTRL+S.

To access the Save As function, press control SHIFT+CTRL+S.

2. Type a name for your file in the **FILE NAME** field.

3. Select the appropriate file type by clicking on the down arrow next to the **FORMAT** field.

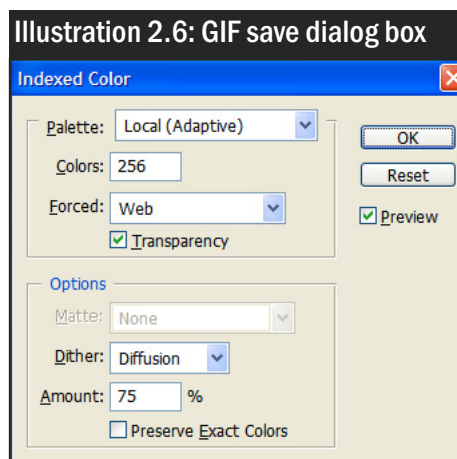
Although you have a variety of file type options (see *Illustration 2.5*), you likely will use only a few:



PSD: This is the native Photoshop format. This format allows you to preserve layers, history information and a variety of other features. Because of its flexibility, you might want to use this format until you have finished editing your image.

GIF: The CompuServe GIF format is particularly useful when creating graphics for use on the internet because it supports transparent backgrounds. Unless you are very familiar the save options available (see *Illustration 2.6*), you will likely want to use the default settings.

JPEG: This format (see *Illustration 2.7*) can be used for

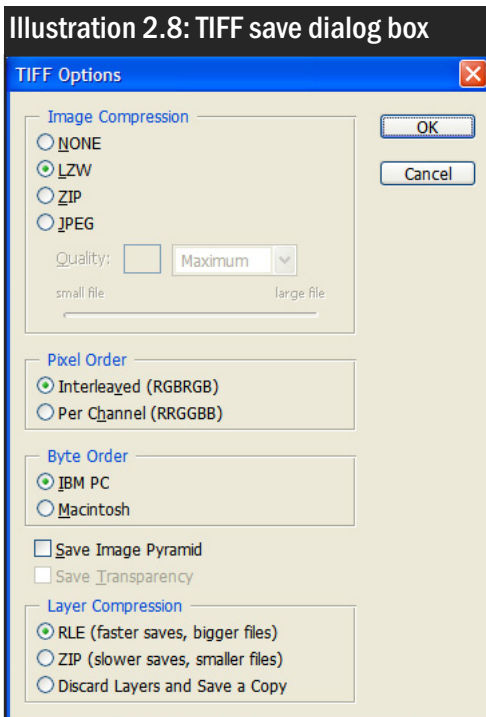
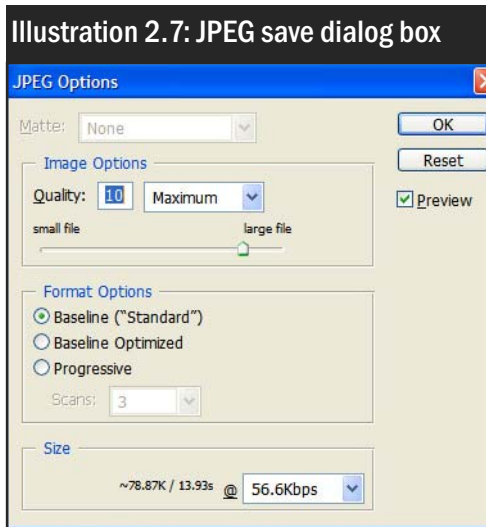


internet and presentation graphics. This format is useful in reducing file size. The trade-off comes between size and quality. The smaller the file size, the lower the quality.

TIFF: This format is useful for printing applications and can be inserted into programs such as Microsoft Word to achieve higher quality print resolution. You have several options for image compression (see *Illustration 2.8*). In general, LZW compression will work well. You also can select whether the file will be used primarily on PC or Macintosh computers.

4. Click **OK** to save the file.

Depending on the file type you select and whether you used layers in your file, you may get an alert asking you to flatten the image (see *Illustration 2.9*). The native Photoshop file format is the only one that supports layers. In order to save any other file type, you must click **OK** to flatten. ***Do this only if you no longer need to manipulate the layers in your image any further.***



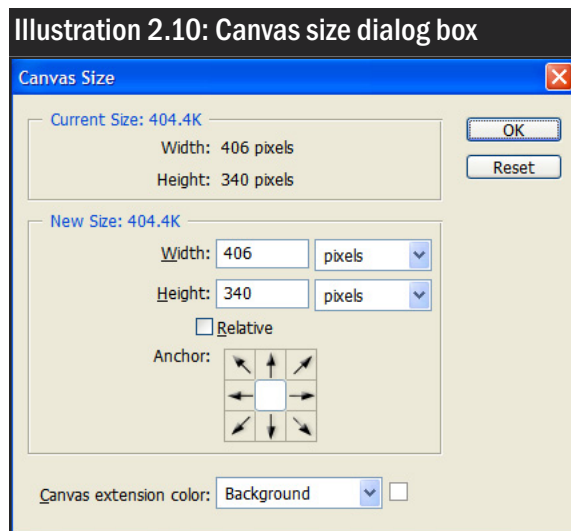


Even though Photoshop CS2 tracks the last 20 changes to your document using the History palette, you might want to save different numbered versions of your image in case you need them.

Changing the canvas size

You might need to expand or shrink the canvas of the file you have just opened. To change the canvas size:

1. Go to the **IMAGE** menu and select **CANVAS SIZE**. The canvas size dialog box will appear (see Illustration 2.10).



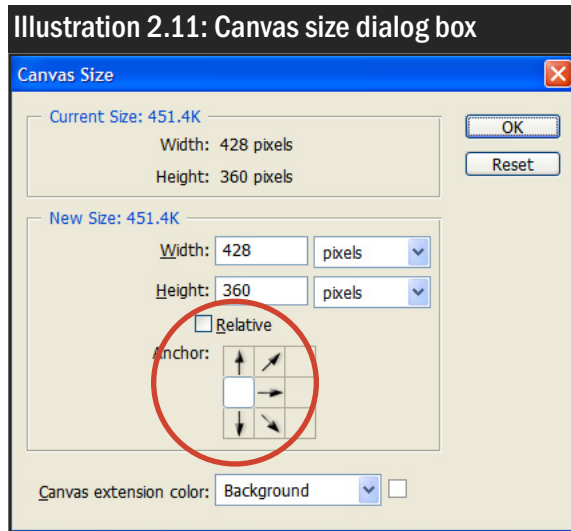
2. Enter a larger or smaller value in the **WIDTH** and **HEIGHT** fields.
3. Choose the anchor point that best suits your need.

The default option anchors the image in the center meaning an expansion or contraction of the canvas will occur equally around that point. This is denoted by the white square in the center of the grid. Expansion is denoted by the direction of the arrows. If you enter a smaller canvas size, your image will be clipped.

If you need more canvas to the left, right, top or bottom of your image, move the anchor point accordingly (see Illustration 2.11).

Keyboard Shortcut

Open the Canvas Size dialog box by pressing **ALT+CTRL+C**.



4. Select the color of the canvas to be created using the down arrow next to the CANVAS EXTENSION COLOR field.

You can select from pre-set options (the foreground color, the background color, white, black, or gray) or choose any color you'd like with the color picker.

5. Click **OK** to enlarge or shrink the canvas.

Changing image size

Occasionally you will need to adjust the size of the image itself (not the canvas). To change the image size:

1. Go to the **IMAGE** menu and select **IMAGE SIZE**. The image size dialog box will appear (see *Illustration 2.12*).
2. Enter a value in the **HEIGHT**, **WIDTH** or **RESOLUTION** fields to change the size of your image.

For the height and width values, you can specify different units of measurement or a percentage value by clicking the down arrow next to the field and making the appropriate selection.

Keyboard Shortcut

Open the Image Size dialog box by pressing **ALT+CTRL+I**.



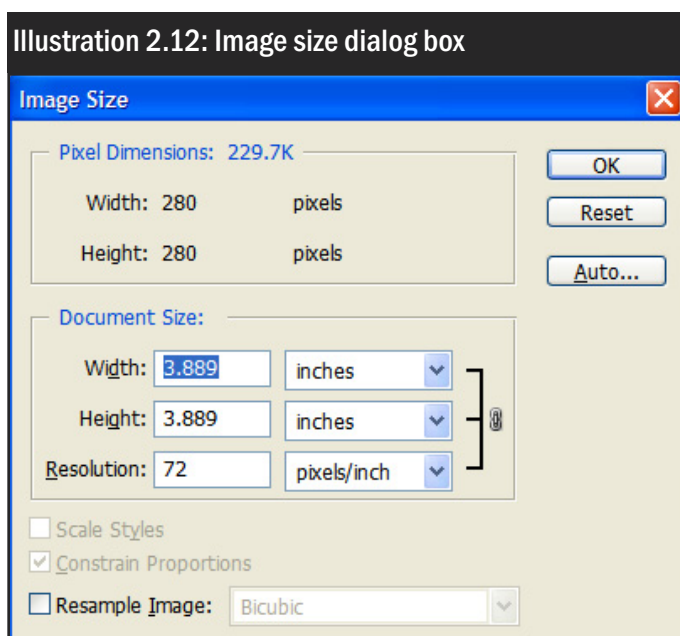
Keep in mind that you will be working with bitmap images and enlarging or reducing a bitmap image results in a decrease in quality.



Notice that by default the height, width, and resolution fields are linked by connector lines and a chain symbol to the left of the value fields. This allows you to make changes without losing quality. If you need to preserve the resolution setting click in the **RESAMPLE IMAGE** box. If you want to change the size of the image asymmetrically, click both the **RESAMPLE IMAGE** and the **CONSTRAIN PROPORTIONS** box.

You also can change the resolution of the image only by clicking the **RESAMPLE IMAGE** box and changing the value in the **RESOLUTION** field. This will impact the quality of your image.

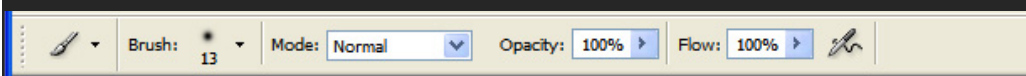
3. Click **OK** to change the size or resolution of your image.



Tool Usage

The tools you will need to manipulate your image are located in the Tool Palette (see *Illustration 3.1*). A brief summary of the available tools follows. The settings for many of these tools can be adjusted via the settings bar (see *Illustration 3.2*). The settings bar is context sensitive which means the available options and displays change based on the tool selected.

Illustration 3.2: Settings bar



1. Rectangular Marquee Tool: Use this tool to select an area of your image. You can copy, adjust, or apply filters to the selected area. You can access alternative selection tools by clicking on the tool, holding down the mouse button and choosing the elliptical, single row or single column selection tools. Press “M” on the keyboard to select this tool.

2. Move Tool: Use this tool to move items around on the canvas. Press “V” on the keyboard to select this tool.

3. Lasso Tool: Use this tool to select free-form areas of your image. You can access alternative selection tools by clicking on the tool, holding down the mouse button and choosing the polygonal lasso and magnetic lasso selection tools. The polygonal lasso tool connects points with straight lines while the magnetic lasso tool automatically snaps to the edges of defined areas of an image. Press “L” on the keyboard to select this tool.

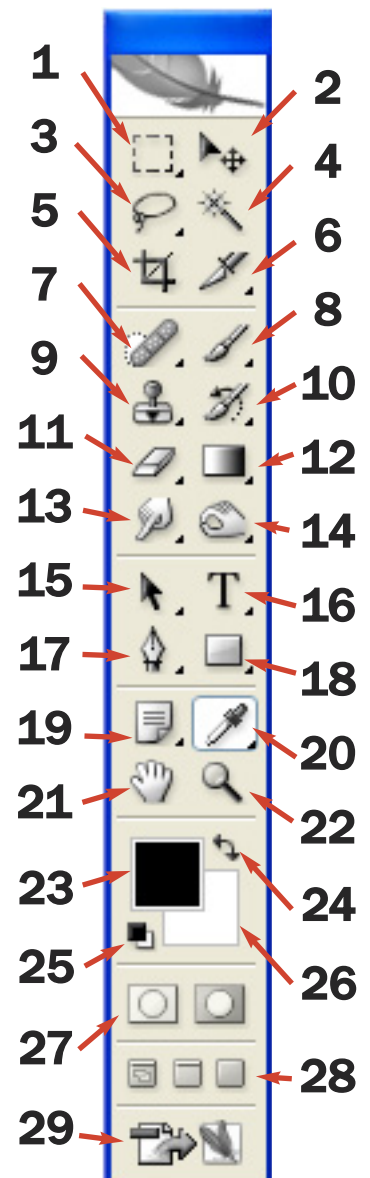
4. Magic Wand Tool: Use the magic wand tool to select a consistently colored area without tracing. You can specify the color range (or tolerance) for the magic wand to broaden or limit the color selection. Press “W” on the keyboard to select this tool.

5. Crop Tool: Use this tool to crop your image to a particular shape or size. Click and drag to choose the area you want to keep. The area to be cropped will be shaded in gray. If the selection is correct, click again in the area you want to keep to complete the cropping process. Press “C” on the keyboard to select this tool.

6. Slice Tool: The slice and slice selection tools are not covered for the purposes of this tutorial. Press “K” on the keyboard to select this tool.

7. Spot Healing Tool: Use this tool to remove minor flaws or blemishes. The tool samples surrounding pixels to match light, color and texture. You can access alternative tools by clicking on the tool, holding down the mouse button and

Illustration 3.1



choosing the healing brush, patch, or red eye tools. Press “J” on the keyboard to select this tool.

8. Brush Tool: Use this tool to paint with the foreground color. You can access alternative tools by clicking on the tool, holding down the mouse button and choosing the pencil or color replacement tools. Press “B” on the keyboard to select this tool.

9. Clone Stamp Tool: Use this tool to sample a portion of one image and apply it to another image, the same image or another layer. You can access an alternative tool by clicking on the tool, holding down the mouse button and choosing the pattern stamp tool. Before cloning, you must hold down the **ALT** key and click on the area of the image you want to clone. Press “S” on the keyboard to select this tool.

10. History Brush Tool: The history brush and art history brush are not covered for the purposes of this tutorial.

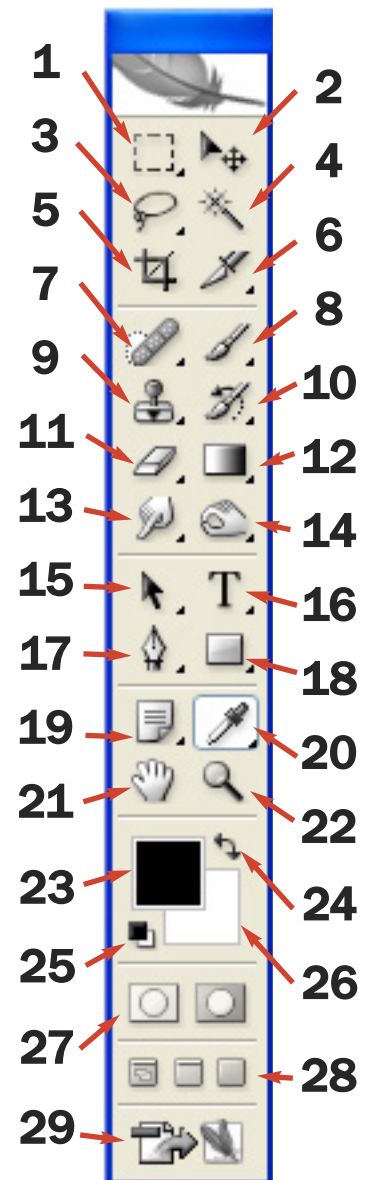
11. Eraser Tool: Use this tool to paint or erase with the selected background color. You can access alternative tools by clicking on the tool, holding down the mouse button and choosing the background eraser or magic eraser tools. The background eraser tool erases the image revealing the layer below it. The magic eraser erases to a defined edge in the image. Press “E” on the keyboard to select this tool.

12. Gradient Tool: Use this tool to fill a selected area with a gradation of color that ranges from the foreground to the background color. You can access an alternative tool by clicking on the tool, holding down the mouse button and choosing the paint bucket tool. The paint bucket tool fills a selected area with the foreground color. Press “G” on the keyboard to select this tool.

13. Smudge Tool: Use this tool to drag color in the direction you move the cursor. You can access alternative tools by clicking on the tool, holding down the mouse button and choosing the blur or sharpen tools. The blur tool softens hard edges or reduces detail while the sharpen tool does the opposite. Press “R” on the keyboard to select this tool.

14. Burn Tool: Use this tool to darken areas of an image. You can access alternative tools by clicking on the tool, holding down the mouse button and choosing the dodge or sponge tools. The dodge tool lightens areas of an image and the sponge tool changes the color saturation. Press “O” on the keyboard to select this tool.

15. Path Selection Tool: This tool is used to select a type path. The alternate, or direct selection tool, will not be covered in this tutorial. Press “A” on the keyboard to select this tool.



16. Horizontal Type Tool: Use this tool to add horizontal text to your image. You can access alternative tools by clicking on the tool, holding down the mouse button and choosing the vertical type tool, the horizontal type mask tool, or vertical type mask tool. The type mask tools will not be covered in this tutorial. Press “T” on the keyboard to select this tool.

17. Pen Tool: The pen tool will not be covered in this tutorial. Press “P” on the keyboard to select this tool.

18. Rectangle Tool: Use this tool to draw a rectangle. You can access alternative tools by clicking on the tool, holding down the mouse button and choosing the rounded rectangle, ellipse, polygon, line or custom shape tools. Press “U” on the keyboard to select this tool.

19. Notes Tool: The notes and audio notation tools will not be covered as part of this tutorial. Press “N” on the keyboard to select this tool.

20. Eye Dropper Tool: Use this tool to select a color from your image. The color selected will be loaded as the foreground or background color depending on which color chip was highlighted when the eye dropper was used. The color sampler and measurement tools will not be covered for this tutorial. Press “I” on the keyboard to select this tool.

21. Hand Tool: The hand tool will not be covered in this tutorial. Press “H” on the keyboard to select this tool.

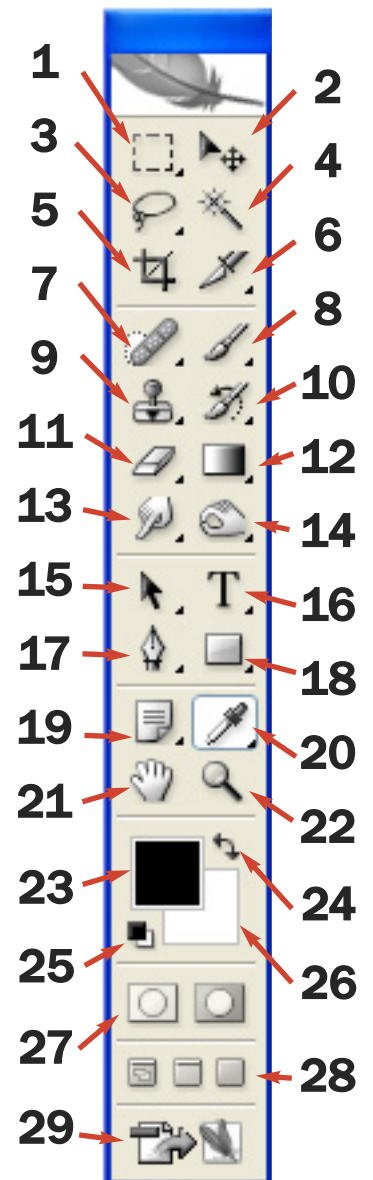
22. Zoom Tool: Use this tool to zoom in on an area of your image. You can either click to zoom in a pre-set amount or click and drag to zoom into a particular area. If you hold the **ALT** key while using this tool, you can zoom out. Press “Z” on the keyboard to select this tool.

23. Foreground Color: This area indicates the foreground color. This is the color that will be used by various brushes and the text tool. To change the color selected, click inside the color box. This will bring up the color picker dialog box (see *Illustration 3.3*). You can use this dialog to set colors via RGB, CMYK, HSB or Lab values. You also can select a color from the gradient presented in the dialog box. Color also can be controlled using the color window (see *Illustration 3.4*).

24. Switch Foreground & Background Colors: Use this control to swap the foreground and background colors.

25. Set Foreground & Background to Black & White

26. Background Color: This area indicates the background color. This is the color that will be used by the eraser and the delete function. To change the color selected, click inside the color box. This will bring up the color dialog box (see *Illustration*

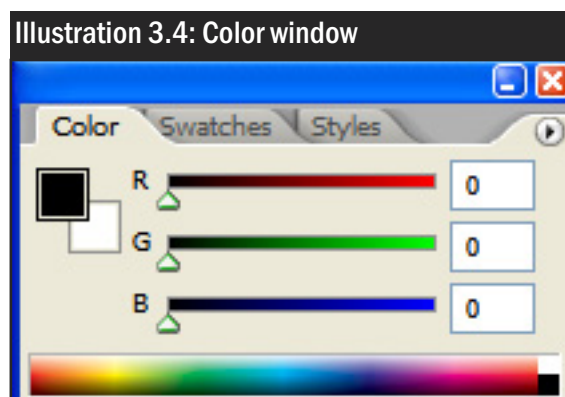


3.3). You can use this dialog to set colors via RGB, CMYK, HSB or Lab values. You also can select a color from the gradient presented in the dialog box. Color also can be controlled using the color window (see *Illustration 3.4*).

27. Toggle between Standard and Quick Mask Edit Modes: This function will not be covered in this tutorial.

28. Toggle View between Standard Screen, Full Screen with Menu Bar, and Full Screen Modes

29. Edit in Image Ready: This function will not be covered in this tutorial.

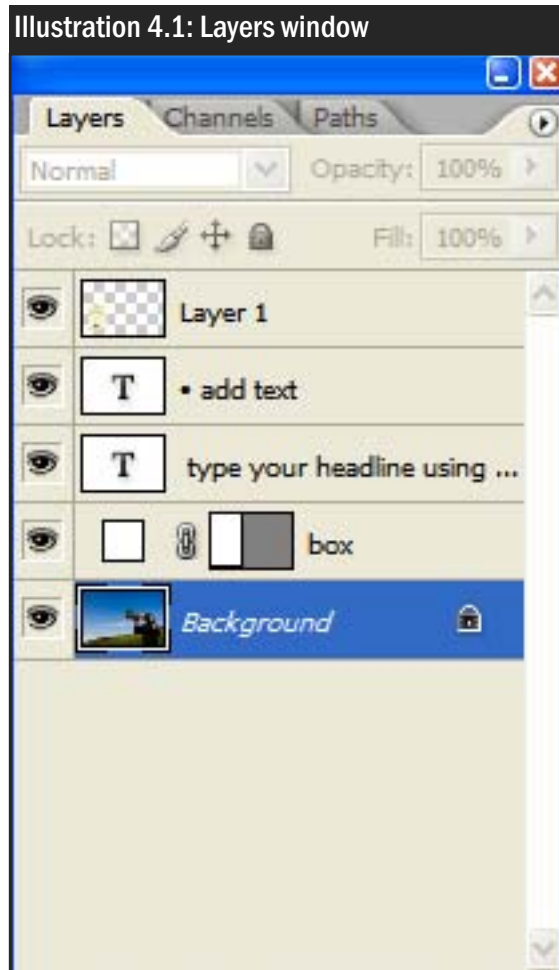


Layers

Photoshop works extensively with layers. As you add elements to an image by pasting or using particular tools, Photoshop will place these elements on a new layer. These layers can be rearranged to move items on top of each other. The best way to keep track of your layers is to use the layers window (see *Illustration 4.1*).

In the example shown, your file would contain five layers. As you make changes, it is important to note which layer is selected. In this case, it is the background (as noted by the blue highlighting).

You can manually add a new layer by going to the **LAYER** menu and selecting **NEW** and then selecting **LAYER**. The new layer will appear with a name and number (example: Layer 1). You also can delete or duplicate an existing layer by right clicking on it and selecting the appropriate option.



By using the cursor to right click on that layer in the layer window, you can name the selected layer (example: box) to make it more easily identifiable.

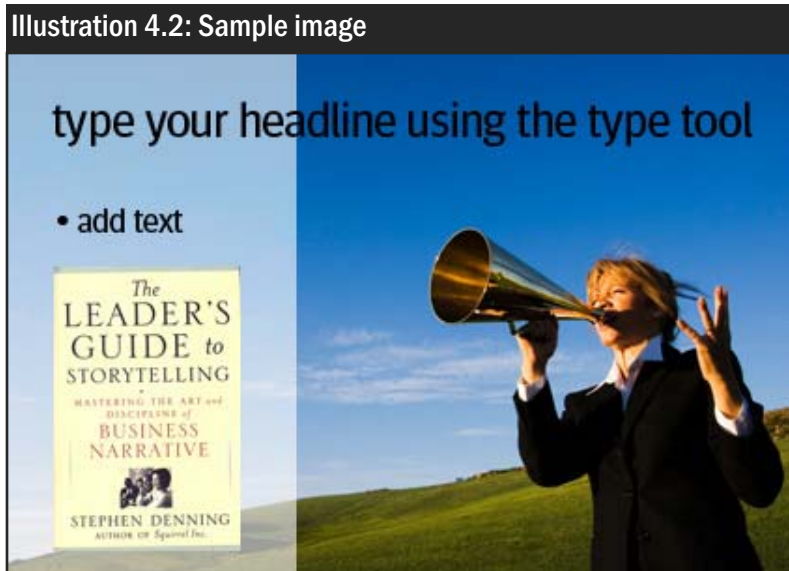


If your image will utilize many layers, it is a good idea to name them. This will help you keep track of the elements associated with each layer and manipulate the layers as needed.

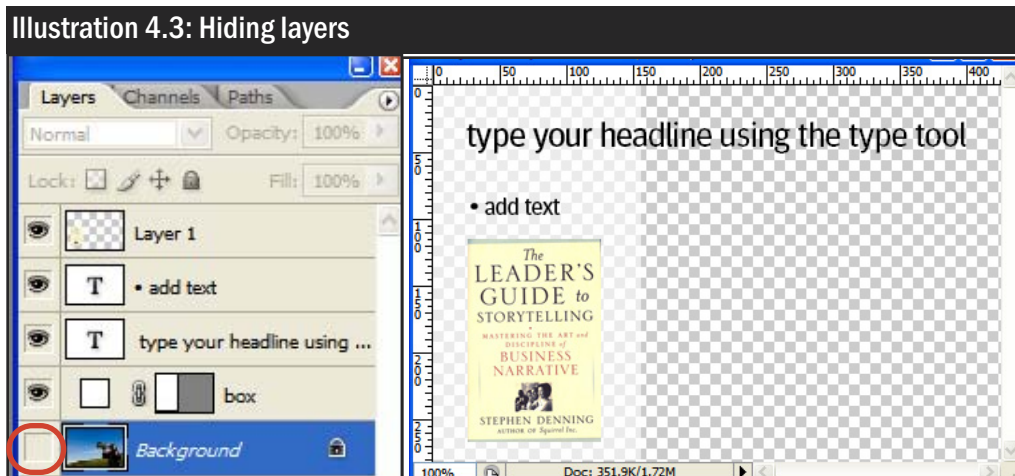
See Illustration 4.2 for the image associated with the layer window in Illustration 4.1. Notice how the bottom layer (the background) is the lowest layer listed in the layer window.

To manipulate a layer or the elements associated with it, be sure that it is selected. Elements on a layer can be moved using the move tool. Go to the **EDIT** menu and

select **FREE TRANSFORM** or **TRANSFORM** to manipulate elements in other useful ways.



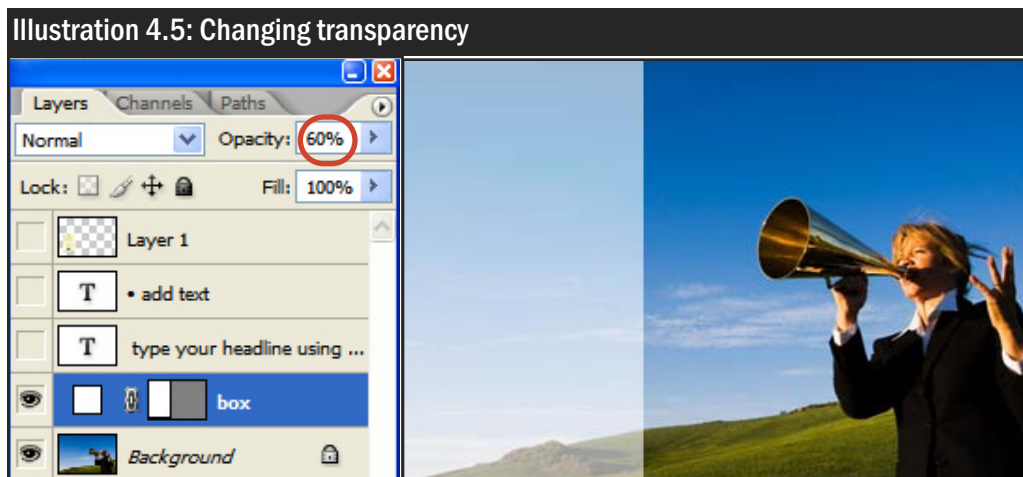
You can temporarily hide a layer by clicking on the eye symbol next to that layer. For example, you can temporarily hide the background as shown in Illustration 4.3. To show the layer again, click in same location to make the eye symbol (and the layer) reappear.



You also can control the transparency of the layer you select. In the sample picture shown in Illustration 4.2, the box added on the left side of the image was originally 100% white and obscured the background (*see Illustration 4.4*).



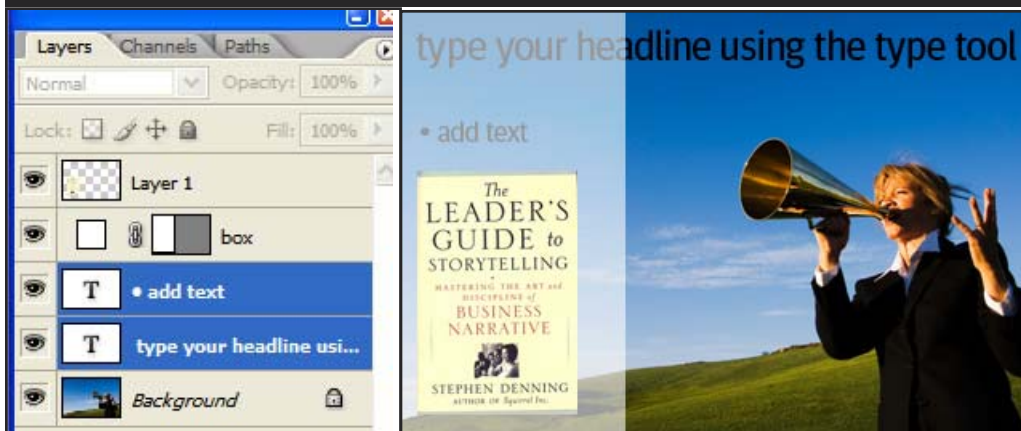
By adjusting the transparency to 60% for this layer, the background image bleeds through the white box (see *Illustration 4.5*).



Each layer is impacted by the ones above it. Elements on the layer above can obscure or impact the image below. For example, the 60% transparent white box changes the look of the background below it. Other items moved below this box also would be impacted.

You can move a layer up or down in the list by clicking on the layer, holding down the mouse key and dragging the layer higher or lower on the list. In *Illustration 4.1* the box layer is just above the background layer. By clicking and dragging, you can move the two text layers below the box layer (see *Illustration 4.6*). Because the text layers are now below the box layer, the partially transparent box impacts their appearance.

Illustration 4.6: Moving layers

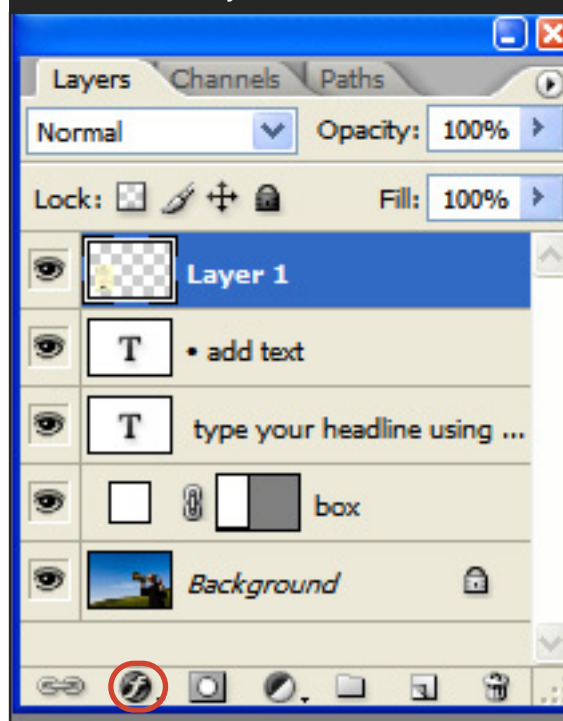


There are additional menus and tools that impact layers, but that description lies beyond the scope of this tutorial. At the bottom of the layers window are a series of controls. One is worth exploring on your own. Select a layer and then click on the **LAYER STYLES** control (see *Illustration 4.7*). This control will allow you to add drop shadows, beveled edges and glow effects to elements. Play with the settings to get a sense of how the controls impact your image.

You now know the basics of using Photoshop CS2 to manipulate images.

Explore... Have fun. There is much more to learn.

Illustration 4.1: Layers window



Photoshop CS2 offers a robust help feature. Select the **HELP** menu and search for specific topics as needed. Good Luck!