2008

Photoshop CS3

The Basics

The information in this manual was developed by and adapted from materials prepared by University of Wisconsin-Eau Claire.

Contents

Photoshop Toolbox 5
Basics for Working with Image Files 6
Opening Images 6
Creating New Images 6
Saving Images 7
Saving a New Image 8
To save as a PSD: 8
To save as a GIF: 8
To save as a JPEG: 9
To save as a TIFF: 9
Saving an Existing Image 10
Using Save As 10
Printing Files 11
Selecting an Area 12
Selecting with the Lasso Tools 13
Making Free Hand Selections 13
Making Straight-Edged Selections 13
Making Irregularly-Shaped Selections 14
Selecting with the Magic Wand Tool 15
Saving a Selection 15
Loading a Selection 16
Deselecting an Area 16
Using the Quick Selection Tool 16
Selecting the Image 17
Adding & Subtracting Content 17
Working with Text 18
Adding Text 18
Modifying Text 18
Deleting Text Layers 18
Positioning Text 19
Enhancing Text 19

Blending Options Defined 20
Adding Borders 20
Cropping an Image 22
Layer Basics 23
Active Layer Tips 23
Hiding/Displaying the Layers Palette 23
Hiding/Displaying Layers 24
Working with Layers 24
Creating Layers 24
Creating Layers: Dialog Box Option 24
Creating Layers: Layers Palette Option 25
Deleting Layers 25
Deleting Layers: Menu Option 26
Deleting Layers: Right Click Option 26
Deleting Layers: Button Option 26
Retrieving Deleted Layers 26
Retrieving Deleted Layers: Undo Option 26
Retrieving Deleted Layers: Step Backward Option 26
Renaming Layers 27
Renaming Layers: Layer Properties Dialog Box 27
Renaming Layers: Mouse Option 27
Changing Layer Opacity 27
Advanced Layer Options 28
Rearranging Layers 28
Rearranging Layers: Drag-and-Drop Option 28
Rearranging Layers: Menu Option 29
Rearranging Layers: Keyboard Option 29
Linking Layers 29
Moving Linked Layers in an Image 30
Unlinking Layers 30
Merging Layers 30
Merging Linked Layers 31
Merging Visible Layers 31

Merging Down 31
Flattening Layers 32
Adjusting Image Resolution 32
Retouching Images 33
The Healing Tools 33
Healing Brush Options 34
Using the Spot Healing Brush Tool 35
Using the Healing Brush Tool 36
Using the Patch Tool 37

Photoshop Toolbox

Photoshop is a program that allows you to work with images and graphics. This document will give an overview of the tools you can use when working with them. These tools are found in the Toolbox, which appears on the left side of the screen when you first start Photoshop. If the Toolbox is not visible, from the Window menu, select Tools.

Button	Tool Name	Action
	Move	Moves selections, layers, and guides.
	Rectangular Marquee	Makes a rectangular selection and provides access to the Elliptical, Single Row, and Single Column Marquee Tools.
	Lasso	Draws free-hand segments of a selection's border and provides access to the Polygonal Lasso Tool and Magnetic Lasso Tool.
	Magic Wand	Selects consistently colored areas without requiring you to trace the outline and provides access to the Quick Selection Tool.
	Crop	Removes unwanted portions from an image. For more information see, Cropping an Image.
	Slice	Creates slices so you can separate your document into areas, which makes it more functional. It also provides access to the Slice Select Tool.
	Spot Healing Brush	Corrects imperfections in an image by making them disappear into the surrounding image. It also provides access to the Healing Brush Tool, Patch Tool, and the Red Eye Tool.
	Brush	Paints brush strokes onto an image and provides access to the Pencil Tool and Color Replacement Tool.
	Clone Stamp	Paints a clone of an image or area of an image you have already selected. It also provides access to the Pattern Stamp Tool.
	History Brush	Paints a copy of one image state or snapshot of an image into your current image's window. It also provides access to the Art History Brush Tool.
	Eraser	Erases pixels wherever the mouse is clicked. It also provides access to the Background Eraser Tool and the Magic Eraser Tool.
	Gradient	Creates a gradual blend between colors and also provides access to the Paint Bucket Tool. For more information, see Working with the Gradient Tool.
	Blur	Softens the edges of an image. It also provides access to the Sharpen Tool and the Smudge Tool.

	Dodge	Allows you to darken or lighten areas of an image. It also provides access to the Burn Tool and the Sponge Tool.
	Pen	Allows you to create, edit, or smooth lines and shapes. It also provides access to the Freeform Pen Tool, Add Anchor Point Tool, Delete Anchor Point Tool, and the Convert Point Tool.
	Horizontal Type	Allows you to insert text onto an image. It also provides access to the Vertical Type Tool, Horizontal Type Mask Tool, and the Vertical Type Mask Tool.
	Path Selection	Makes shape or segment selections that show anchor points, direction lines, and direction points. It also provides access to the Direct Selection Tool.
	Rectangle	Allows you to draw different shapes. It also provides access to the Rounded Rectangle Tool, Ellipse Tool, Polygon Tool, Line Tool, and the Custom Shape Tool.
	Notes	Allows you to add notes to any image. It also provides access to the Audio Annotation Tool.
	Eyedropper	Allows you to get colors from an image to designate as a new background or foreground color. It also provides access to the Color Sampler Tool, the Ruler Tool, and the Count Tool.
	Hand	Moves an image within its window.
	Zoom	Magnifies or reduces the view size of an image.

Basics for Working with Image Files

Opening Images

Follow these instructions to open an image in Photoshop.

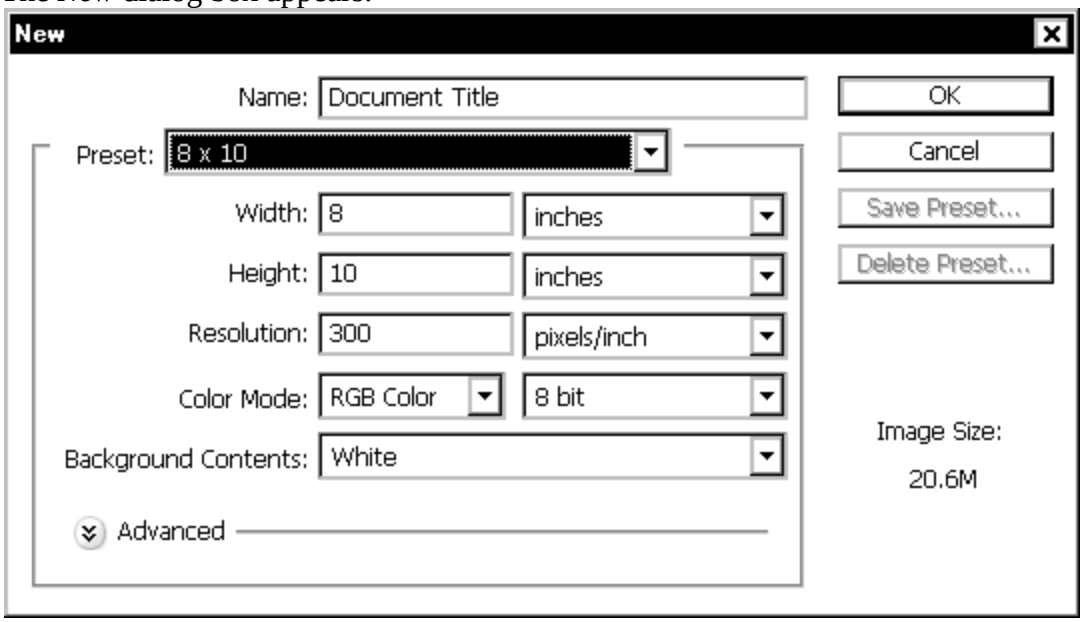
1. From the *File* menu, select ***Open...***
   The *Open* dialog box appears.
2. Using the *Look in* pull-down list, navigate to the desired image
3. Select the image
4. Click **OPEN**
   The image appears.

Creating New Images

You can create a new image by using the *New* dialog box. The *New* dialog box allows you to specify the name, width, height, resolution, and mode of your new image.

1. From the *File* menu, select ***New...***

   The *New* dialog box appears.



2. In the *Name* text box, type a name for your image
3. Under the *Preset* section, in the *Width* text box, type a value for the width of your image
4. From the *Width* pull-down list, select a unit of measurement
   NOTE: You have several unit choices: pixels, inches, centimeters (cm), millimeters (mm), points, picas, and columns.
5. In the *Height* text box, type a value for the height of your image
6. From the *Height* pull-down list, select a unit of measurement
   In the *Resolution* text box, type a value for the resolution of your image
   NOTES:
   Resolution should be determined according to how the image will be used.
   You have two unit choices: pixels/inch and pixels/cm.
   HINT: In the lower right corner of the dialog box is the Image Size; it adjusts according to the image specifications.
7. From the Color Mode pull-down list, select an image mode
   From the Background Contents pull-down list, select the image background
   NOTE: You have three choices: White, Background Color, or Transparent.
8. Click **OK**
   A new Photoshop image is created.

Saving Images

The *Save* and *Save As* commands are located under the *File* menu. If you are saving a document for the first time, either selection will take you to the *Save As* dialog box.

NOTE: Different image file types allow you to save an image with a variety of options. This section provides instructions for saving an image that has a good balance of image quality and file size.

Saving a New Image

Layers allow for flexibility and creativity when working with an image. However, few other software programs can read the layers in a Photoshop image file.
RECOMMENDATION: Save the file as a PSD so you can make changes to the file in the future.

- From the *File* menu, select ***Save As...***
  The *Save As* dialog box appears.
- Using the *Save in* pull-down list, select the location for saving the image
- In the *File name* text box, type a name for the file
- Continue with the appropriate section according to the file *Format* you are creating:

To save as a PSD:

PSD is a Photoshop file. It has a large file size and it allows you to make changes to your graphic. With this file type no information is lost, thus it is the highest image quality. This format can be saved with layers.

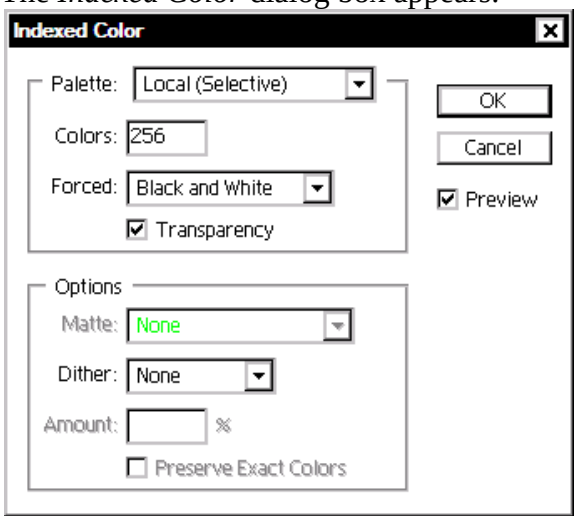
1. From the *Format* pull-down list, select ***Photoshop (*.PSD; *.PDD)***
2. Click **SAVE**
   The image is saved.

To save as a GIF:

GIF has a small file size and low image quality. It cannot be saved with layers.

1. From the *Format* pull-down list, select ***CompuServe GIF (*.GIF)***
2. Click **SAVE**
   A dialog box appears asking you to flatten layers.

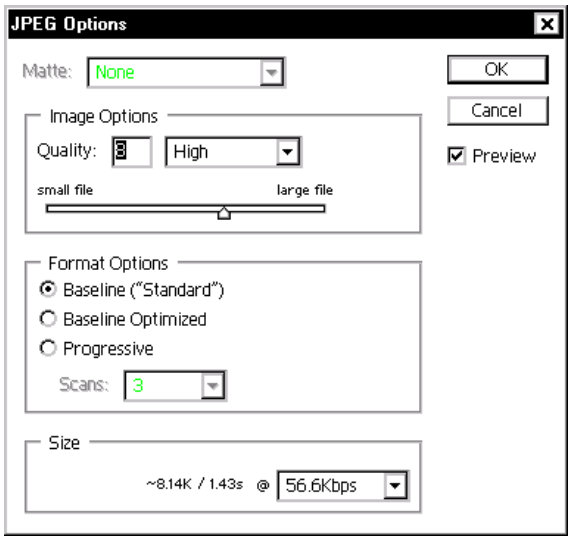
3. Click **OK**
   The *Indexed Color* dialog box appears.



4. In the *Options* section, from the *Dither* pull-down list, select ***None***
5. Click **OK**
   The *GIF Options* dialog box appears.
6. If you want the image to load section by section, select ***Normal***
   If you want the image to load by fading in, select ***Interlaced***
7. Click **OK**
   The image is saved.

To save as a JPEG:

JPEG has a good balance between file size and image quality. It cannot be saved with layers.

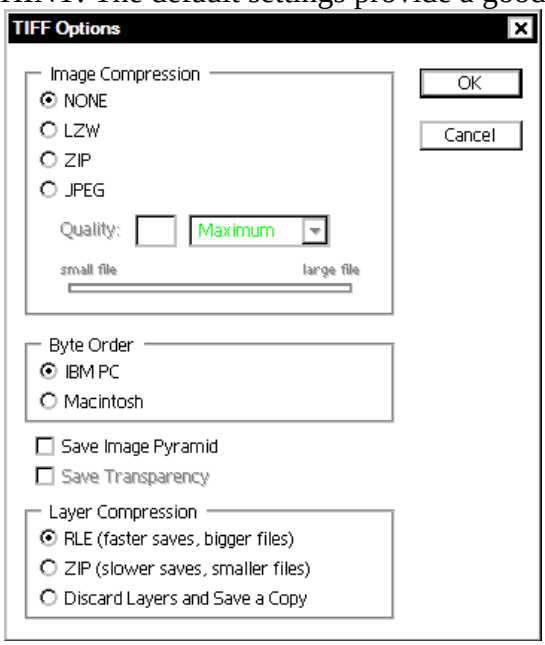


1. From the *Format* pull-down list, select ***JPEG (*.JPG; *.JPEG; *.JPE)***
2. Click **SAVE**
   The *JPEG Options* dialog box appears.
3. In the *Image Options* section, move the slider to adjust the image quality and file size
   HINT: A quality rating of 8 results in a good balance between image quality and file size.
4. Under *Format Options*, select ***Baseline ("Standard")***
5. Click **OK**
   The image is saved.

To save as a TIFF:

TIFF has a large file size and high image quality. It cannot be saved with layers.

1. From the *Format* pull-down list, select ***TIFF (*.TIF; *.TIFF)***
2. Click **SAVE**
   The *TIFF Options* dialog box appears.
   HINT: The default settings provide a good balance between image quality and file size.



3. Click **OK**
   NOTE: If you did not select *Discard Layers and Save a Copy*, an alert regarding layers and file size appears, click **OK**.

Saving an Existing Image

1. From the *File* menu, select ***Save***
   The image is saved to its original location.

Using Save As

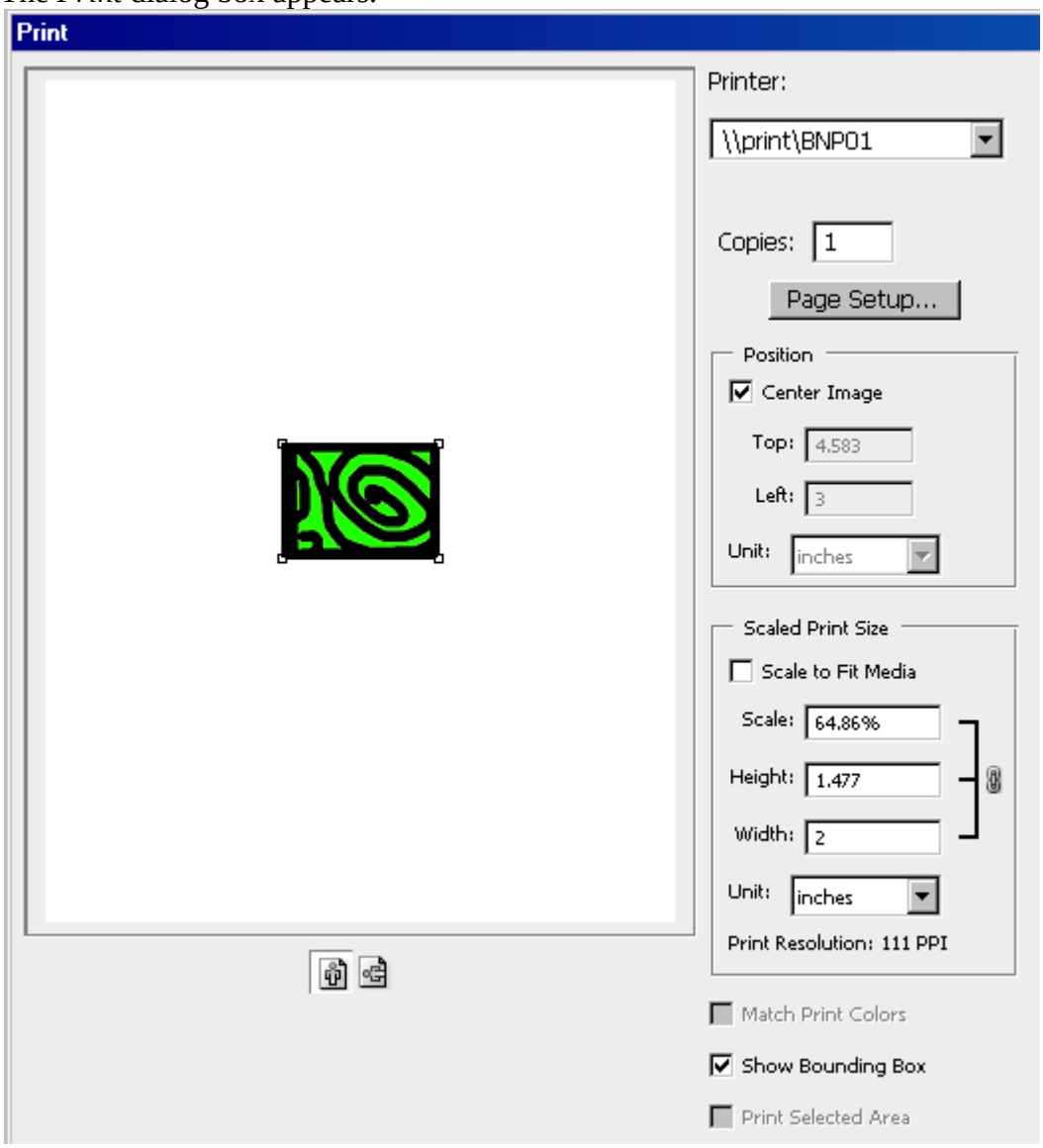
Using *Save As* allows you to save variations of an image or the same file in a different location.

1. From the *File* menu, select ***Save As...***
   The *Save As* dialog box appears.
2. Using the *Save in* pull-down list, select the location for saving the image
3. In the *File name* text box, type a name for the file
4. From the *Format* pull-down list, select a file type
5. Click **SAVE**
   The image is saved to the selected location.

Printing Files

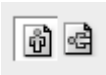
Photoshop CS3 has an improved *Print* dialog box with easy to use features that help you customize how your images are printed. The new *Print* dialog box includes ways for you to reposition your image on the printed page, control the coloring of the image from the printer, and resize the print size of your image. This section will give instructions on selecting a printer, repositioning the image on the page, and page setup.

1. From the *File* menu, select ***Print...***
   The *Print* dialog box appears.



2. From the *Printer* pull-down list, select your printer
3. In the *Copies* text box, type the number of copies you want to print
4. OPTIONAL: To center the printed image on the page, in the *Position* section verify that ***Center Image*** checkbox is selected
   NOTE: The option is selected if a checkmark appears in the box.

5. OPTIONAL: To position the printed image on the page manually,
   a. Verify that the *Center Image* option is unselected and that *Show Bounding Box* is selected
      NOTE: The options are selected if a checkmark appears in the box.
   b. On the page preview at the right, click on the image
      Handles appear at the four corners of your image.
   c. Click and drag the image to the desired location
      OR
      In the *Position* section, in the *Top* and *Left* text boxes, type the size of the top and left margins
      Your image is repositioned.
6. To make the image the size of your page, in the *Scaled Print Size* section select the ***Scale to Fit Media*** option

7. OPTIONAL: To change the layout of the page, use the **PORTRAIT** or **LANDSCAPE** buttons 
8. When you are finished setting up your image, click **PRINT**
   Your image is printed.

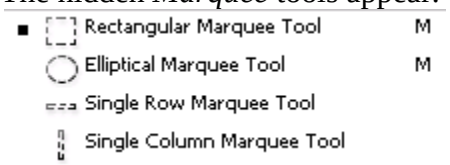
Selecting an Area

Photoshop has multiple selection tools to accommodate the different types of selections. All of these tools are found in the Toolbox.

Selecting with the Marquee Tools

Marquee tools make rectangular, elliptical, and single row or single column selections. The *Marquee* tools are found in the uppermost left corner of the *Toolbox*.

To recognize this tool, look for one of these buttons:

1. From the *Toolbox*, select and hold the ***Marquee Tool***
   The hidden *Marquee* tools appear.
   

2. Select one of the tools
3. To select an area, click and drag the the crosshair pointer to surround your desired selection
   HINTS:
   To obtain a perfect square or circle, press and hold [**Shift**] before clicking and dragging the mouse.
4. To finish the selection, release the mouse button

5. Complete the desired action (e.g., copy, add color)
   NOTE: The area remains selected.
6. To prevent inadvertent changes to the selected area, when complete, deselect the area

Selecting with the Lasso Tools

Lasso tools make free hand selections of irregularly shaped areas, with or without straight edges. When working with these tools, the pointer takes the shape of the tool. To make the selection process more precise, you can convert it to a crosshair pointer by pressing [**Caps Lock**].

HINT: You can switch between the *Lasso* tools by pressing [**Shift**] + [**L**].

Making Free Hand Selections

Selecting with the *Lasso Tool* is similar to drawing a line around an area with a pen.

NOTE: The method used is click and drag. When you release the mouse button, the selection is completed.

1. From the *Toolbox*, select ***Lasso Tool***.
2. Click and drag around the contours/border of the area you want to select
3. Release the mouse button
   The point at which you release will be connected with the beginning point to enclose the area.
   NOTE: The selected area is now surrounded by animated dashes.
   HINT: If your selection is not quite right, press [**Ctrl**] + [**D**] and repeat steps 2-3.
4. Complete the desired action (e.g., copy, add color)
   The area remains selected.
5. To prevent inadvertent changes to the selected area, when complete, deselect the area

Making Straight-Edged Selections

The *Polygonal Lasso Tool* allows you to select oddly shaped areas of an image. You can use this tool if you want to select a triangular or other polygonal area of an image.

1. From the *Toolbox*, select the ***Polygonal Lasso Tool***.
   NOTE: The *Polygonal Lasso Tool* is a hidden lasso tool. Click and hold the *Lasso Tool* button on the *Toolbox* to select the *Lasso* tool of your choice, e.g., the *Polygonal Lasso Tool*.
2. Position the polygonal lasso pointer where you want to start selecting and click the mouse
3. Move to the next corner of the area you want to select and click
   HINT: To ensure a straight line selection, press [**Shift**] before clicking.
   A line and an anchor point appear.
4. Repeat step 3 until the desired area is selected

5. To finish the selection, double click on the last point
6. Complete the desired action (e.g., copy, add color)
   The area remains selected.
7. To prevent inadvertent changes to the selected area, when complete, deselect the area

Making Irregularly-Shaped Selections

The *Magnetic Lasso Tool* allows you to select particular objects out of your image without having to free hand it. The *Magnetic Lasso* works by detecting differences in color pixels between the area that is being selected and what surrounds it. Therefore, it works best when the color difference is significant. The *Magnetic Lasso Tool* works less well if the object being selected is similar in color to its background.

1. From the *Toolbox*, select the ***Magnetic Lasso Tool***
   NOTE: The *Magnetic Lasso Tool* is a hidden lasso tool. Click and hold the *Lasso Tool* button on the *Toolbox* to select the *Lasso* tool of your choice, e.g., the *Magnetic Lasso Tool*.
2. Position the lasso pointer where you want to start selecting and click to set the first *Fastening Point*
   HINT: If the pointer is not in the form of a magnetic lasso, press [**Caps Lock**]
   NOTE: *Fastening Points* anchor your selection border in place.

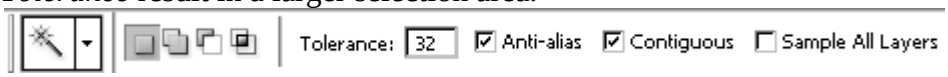
3. Move the mouse along the edge of the area you want to select
   It automatically draws a moveable line that "clings" to areas of similar color between *Fastening Points*.
4. To add a straight-edge selection,
   a. Release the mouse button
   b. Press [**Alt**] + click at the starting point of the straight-edge selection
      This sets the *Fastening Point* for the start.
   c. Release [**Alt**] and the mouse button
   d. Move the mouse to the endpoint of the straight-edge
   e. Click the mouse button
      This sets the *Fastening Point* at the end of the straight-edge selection. Your cursor returns to the *Magnetic Lasso* and you can resume free hand selection.
5. If the border does not automatically snap to the desired edge, click the mouse button once to add a *Fastening Point* manually
6. To erase recently drawn segments and *Fastening Points*, press [**Delete**]
7. To finish the selection, double click on the last point

8. Complete the desired action (e.g., copy or add color)
9. To prevent inadvertent changes to the selected area, when complete, deselect the area

Selecting with the Magic Wand Tool

The *Magic Wand Tool* selects areas of similar color. To increase or decrease the range of color selected, you can adjust the *Tolerance*, or color range, of the *Magic Wand Tool*.

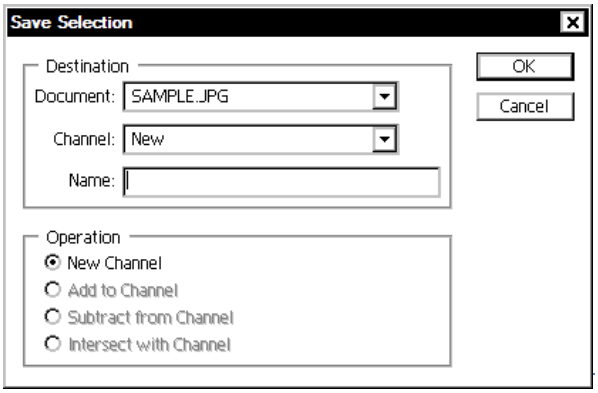
To select an area:

1. From the *Toolbox*, select the ***Magic Wand Tool***
   HINT: If the *Magic Wand Tool* is not visible, you may need to click and hold on the *Quick Selection Tool* to find it.
2. From the *Objects* toolbar, in the *Tolerance* text box, specify a value
   NOTE: Low levels of *Tolerance* result in a smaller selection area. High levels of *Tolerance* result in a larger selection area.
   

3. To select only like-colored pixels that are next to each other, select ***Contiguous***
   OR
   To select all like-colored pixels in the image, de-select ***Contiguous***
4. In your image, click a spot within the area that you want to select
   Similar colors around the area where you clicked are selected.
5. OPTIONAL: Enlarge or reduce the selected area:
   NOTE: These selections are also based on similar colors and may result in unintentional additions or subtractions.
   a. To add to the selected area, press [**Shift**] while clicking areas not included in the original selection
   b. To subtract from the selected area, press [**Alt**] while clicking areas you want to exclude
6. Complete the desired action (e.g., copy, add color)
   The area remains selected.
7. To prevent inadvertent changes to the selected area, when complete, deselect the area

Saving a Selection

Focusing on a particular area of an image is done using the selection tools; however, many times you need to work with different areas at different times. Photoshop allows you to save selection areas to make re-selecting these areas more efficient.



1. Select the desired area
2. From the *Select* menu, select ***Save Selection...***
   The *Save Selection* dialog box appears.

3. In the *Name* text box, type a name for the selection.
4. Click **OK**

Loading a Selection

In order to work with a saved selection, it needs to be loaded.

1. From the *Select* menu, select ***Load Selection...***
   The *Load Selection* dialog box appears.
2. From the *Channel* pull-down list, choose the desired selection
3. Click **OK**
   The selection is loaded.

Deselecting an Area

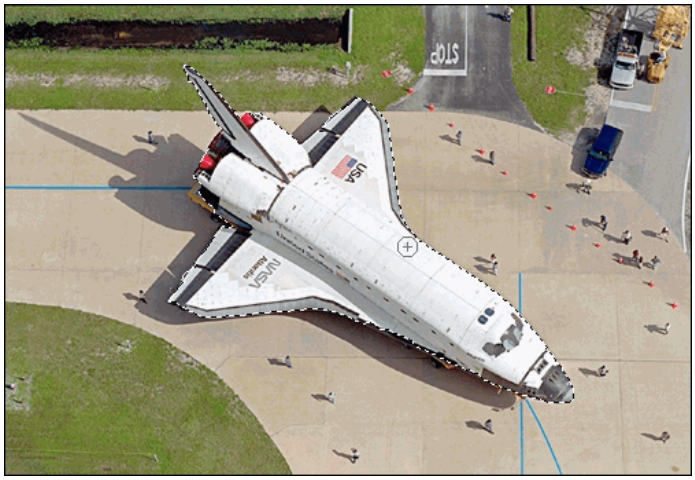
To prevent inadvertent changes to a selected area, you should deselect it.

WARNING: If you have not saved the selection, you will need to re-select the area in order to work with it again.

1. From the *Select* menu, select ***Deselect***

Using the Quick Selection Tool

The *Quick Selection* tool uses a brush tip to select parts of images. This powerful tool is useful for selecting the parts of an image which require great precision to reach.



From this NASA image, you can see how precise your selecting can be with the *Quick Selection* tool.

Selecting the Image

As you drag the brush across the image, the *Quick Selection* tool presumes the content of your selection by adding parts of the image which have similar colors. The edges of the selection are created by excluding parts with contrasting color. These rules are amended when the brush passes over contrasting colors.

1. If the *Toolbox* does not appear, from the *Window* menu, select ***Tools***
   The *Toolbox* appears.
2. On the *Toolbox*, click **QUICK SELECTION TOOL**
   OR
   If the QUICK SELECTION TOOL does not appear, on the *Toolbox*, right click **MAGIC WAND TOOL** » select ***Quick Selection Tool***
3. To change the size of the *Quick Selection* brush,
   Press [**[**] or [**]**]
   OR
   a. From the *Objects* toolbar, click the next to BRUSHSIZE
   b. In the *Diameter* section, move the slider to the desired brush size
      NOTE:The brush size is measured in pixels.
4. Click and drag the mouse to make your desired selection
   As you drag the mouse, the tool presumes the edges of your selection based on nearby contrasts of color.

Adding & Subtracting Content

Once you have made a selection, you can use the *Quick Selection* tool to add or remove content based on nearby contrasts of color.

1. Within your image, make a selection
   NOTES:
   Your image must be selected in some way before adding or subtracting from that selection.
   The selection does not need to be selected with the *Quick Selection* tool; any selecting tool will work.
2. On the *Toolbox*, click **QUICK SELECTION TOOL**
3. To add content to your selection,
   a. From the *Objects* toolbar, click **ADD TO SELECTION**
   b. On the image, click and drag the mouse
      The area is added to your initial selection.
4. To subtract content from your selection,
   a. From the *Objects* toolbar, click **SUBTRACT FROM SELECTION**
   b. On your selection, click and drag the mouse
      The area is removed from your selection.

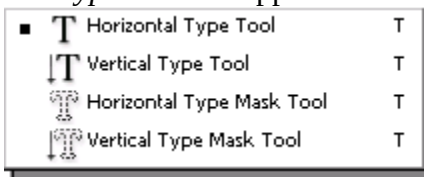
Working with Text

Text can be added to an image or can be created for use as an image by itself. This document

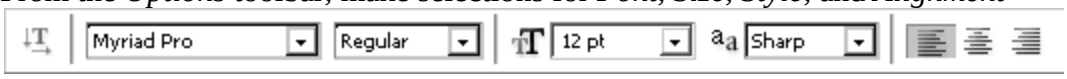
Adding Text

Adding text can be done in two ways: you may add text to an existing selected layer, or if no layer is selected, you may add text to the image and a new layer will be automatically created.

NOTE: By default, a text layer takes the first 22 characters as the layer name. You can rename the layer at any time.

1. From the *Toolbox*, click and hold the mouse over the **HORIZONTAL TYPE TOOL** T.
   The *Type Tool* list appears.
   

2. Select ***Horizontal Type Tool*** or ***Vertical Type Tool***
3. OPTIONAL: To select a color for the text from the *Swatches* palette, click a color
   OR
   From the *Text Toolbar*, click **SET THE TEXT COLOR**

4. Click within the image where you want your text to begin
5. From the *Options* toolbar, make selections for *Font*, *Size*, *Style*, and *Alignment*
   

6. Type your text

Modifying Text

1. In the *Layers* palette, select the layer that contains the text you want to modify
2. From the *Toolbox*, click the **TYPE TOOL** T.
3. Select the desired text
4. On the *Options* toolbar, make the appropriate changes

Deleting Text Layers

If you are dissatisfied with your text layer or decide not to use it, it can be deleted.

1. In the *Layers* palette, select the layer to be deleted

2. From the *Layer* menu, select ***Delete » Layer***
   OR
   From the *Layers* palette, right click the layer containing the text » select ***Delete Layer***
   A confirmation dialog box appears.
3. Click **YES**
   The text layer is deleted.

Positioning Text

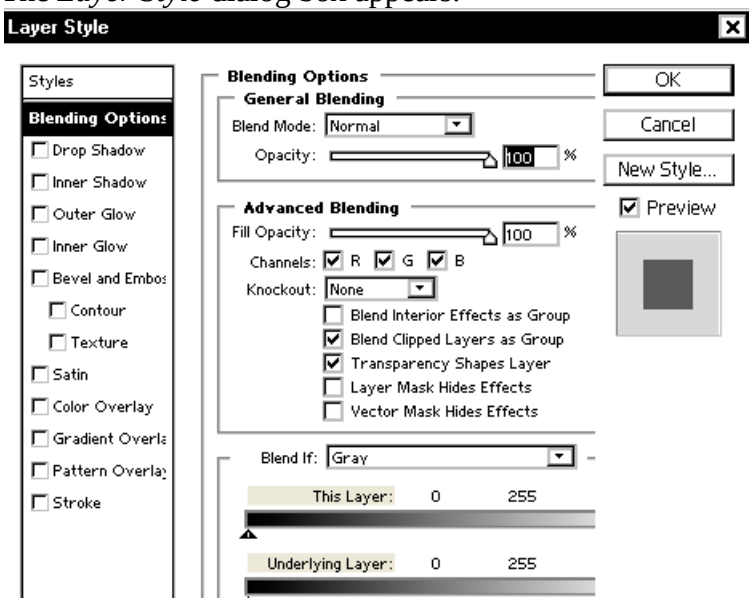
In order to position the text, make certain that the layer containing the text you want to move is selected.

1. From the *Toolbox*, click the **MOVE TOOL**
2. From the *Layers* palette, select the text layer
3. Click and drag the text to its new location
   OR
   To move the text pixel by pixel, use the arrow keys.

Enhancing Text

Photoshop allows you to enhance your text by using many special artistic effects, including drop shadowing, bevel and emboss, and color overlay.

1. In the *Layers* palette, double click the layer you would like to enhance
   NOTE: Click an empty area of the layer. Do not click on the name of the layer.
   OR
   From the *Layer* menu, select ***Layer Style » Blending Options...***
   The *Layer Style* dialog box appears.



2. Under *Styles*, select the desired option
   NOTE: More options for enhancement corresponding to your selection appear under *Blending Options* on the right of the dialog box.
3. Make the desired selections and adjustments
4. Click **OK**

Blending Options Defined

Drop Shadow
Gives the impression that the text is raised above the background

Inner Shadow
Gives the appearance that the background is raised above the text

Outer Glow
Produces text with the image of soft light emanating from under the words and extending around them

Inner Glow
Produces text that appears semi-transparent and internally lit up

Bevel and Emboss
Produces text that has a realistic, 3D look

Satin
Gives the text's surface a shiny, smooth appearance

Color Overlay
Overlays the text with color while preserving the highlights and shadows of the text

Gradient Overlay
Overlays the text with a gradient color pattern while preserving the highlights and shadows of the text

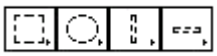
Pattern Overlay
Overlays the text with a pattern while preserving the highlights and shadows of the text

Stroke
Adds the appearance of a line drawn on the edge of your text

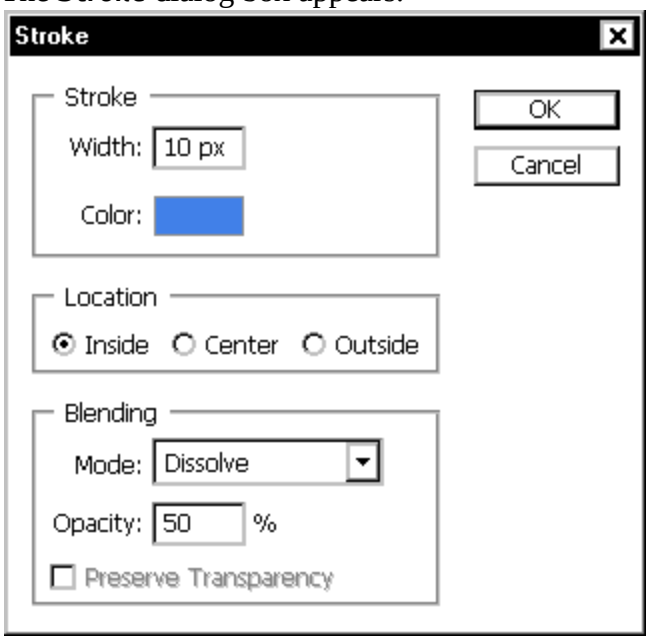
Adding Borders

You can specify the color, location, size, and opacity of your borders in Photoshop. This document explains how to add customized borders to your Photoshop images.

1. Right click ***Rectangle Marquee*** tool and select the desired shape for your border



2. Click and drag the mouse until the marquee is in the desired shape for your border
   A moving dashed line appears around your selection.
3. From the ***Edit*** menu, select *Stroke…*
   The ***Stroke*** dialog box appears.



4. Under ***Stroke***, in the ***Width*** text box, type the desired pixel width
5. To select the color of the border:
   a. Click the ***Color*** swatch
      The ***Select stroke color*** dialog box appears.
   b. Select the desired color
   c. Click **OK**
6. In the ***Location*** section, make the desired selection
   Inside: the border appears inside of the dashed-selection line
   Center: the border appears centered over the dashed-selection line
   Outside: the border appears outside of the dashed-selection line
7. In the *Blending* section, from the *Mode* pull-down list, select the desired mode
8. OPTIONAL: In the *Blending* section, in the *Opacity* text box, type the desired percentage of opacity
   NOTE: 100% opacity is solid coloring. Lowering the opacity makes your border transparent.
9. Click **OK**
   The border is applied.
10. To remove the dashed line within the border, press [**Ctrl**]+[**D**]
    The dashed line disappears.

Cropping an Image

The ***Crop Tool*** in Photoshop allows you to remove portions of an image and focus on the remaining components within an image. This document shows you how to crop an image in Photoshop CS3.

1. From the ***Toolbox***, select the **CROP TOOL**
   The cursor changes into the ***Crop Tool.***
2. Click and drag the mouse over the part of the image you would like to keep
3. Release the mouse button
   A dotted line appears around your selection and the rest of the image becomes dim.

   .
4. To cancel the crop, press [**Esc**]
   The dotted line is removed from around the selection and nothing is changed within the image.
5. OPTIONAL: To move the selection area
   a. Place your pointer inside the selection area

      HINT: The adjusts the center point of the image, it does not move the image.
   b. Click and hold the mouse button
   c. Drag the selection area to the desired position
6. OPTIONAL: To resize the selection area
   a. Place your pointer on one of the handles that appears on the edge of the selection area
   b. Click and hold the mouse button
   c. Drag the selection area to the desired size
      NOTE: Each handle along the edge of the selection area sizes the selection area differently.
7. OPTIONAL: To rotate the selection area
   a. Place your pointer outside of the selection area
   b. Click and hold the mouse button
   c. Rotate the selection area to the desired position

      NOTE: To move the point of rotation, click the center point and drag it to the desired position

8. To crop the image, press [**Enter**]
   OR

   From the ***Options*** bar, click **COMMIT CURRENT CROP OPERATION** ✔
   The image is cropped.

Layer Basics

Photoshop's layers can be thought of as separate films, much like transparency sheets. Each layer contains its own discrete contents. Individual layers contain objects which together create your composite image. The following document will introduce some of the basic concepts related to layers.

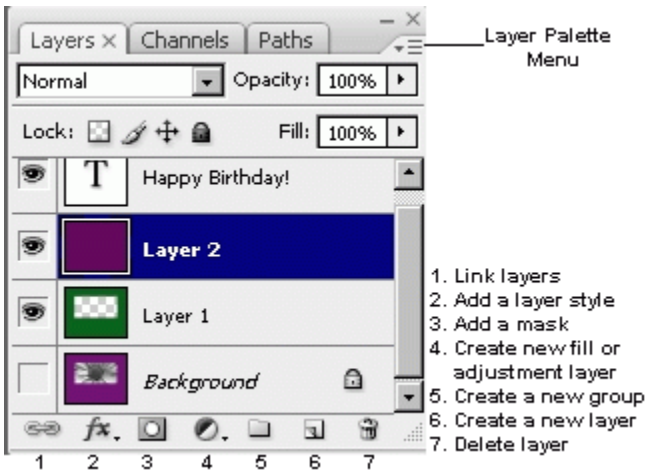
Active Layer Tips

When you select a layer in the ***Layers*** palette, that layer is active. The following tips refer to active layers:

- Only one layer can be active at a time.
- The name of the active layer appears in the title bar of the image window.
- Changes affect only the active layer even though you view the whole image in the image window.

Hiding/Displaying the Layers Palette

The ***Layers*** palette is your essential tool for working with layers. It contains a list of all the layers, starting with the topmost layer. To the left of the name is a thumbnail of the contents of each layer.

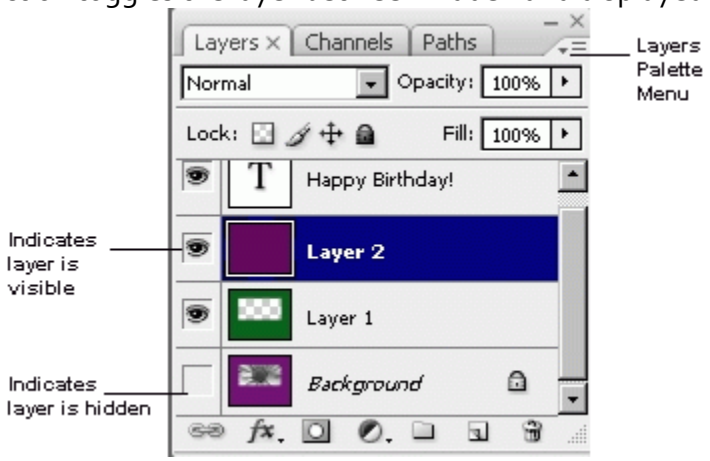


1. From the ***Window*** menu, select *Layers*
   This action toggles the feature on and off.
   NOTE: A check mark will appear in front of ***Layers*** when the ***Layers*** palette is displayed.

Hiding/Displaying Layers

You may find it useful to hide layers while working in Photoshop. For example, when merging layers, you can hide some layers so that they will not be merged. Visible layers have a VISIBILITY icon next to them; hidden layers do not.

1. On the ***Layers*** palette, for the layer(s) you wish to hide, click the **VISIBILITY** icon
   HINT: To hide several layers at once, click and drag within the ***Visibility*** column. This action toggles the layer between hidden and displayed.



Working with Layers

When working with images divided into layers, each layer operates independently with its own contents. This allows you to change one layer without effecting the other layers or the background of the image. When layered together, the contents of each layer combine to create a composite image.

Creating Layers

Photoshop allows you to create multiple layers in an image. Each layer is assigned a default name, and the default opacity is set to 100%. You can rename layers or change the opacity while you create the layer or at a later time.

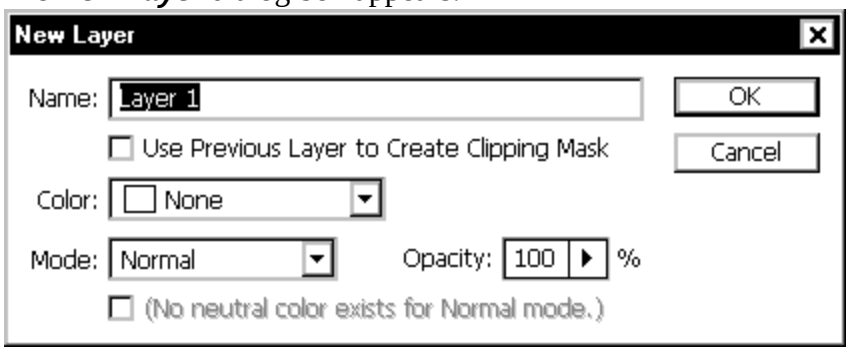
You can create layers using the New Layer dialog box or the Layers palette.

Creating Layers: Dialog Box Option

Using the dialog box method, you can create a new layer and change the layer name, opacity, color, and mode.

1. From the ***Layer*** menu, select *New » Layer…*
   OR

Press [**Ctrl**] + [**Shift**] + [**N**]
OR
Press [**Alt**] + **CREATE A NEW LAYER** on the ***Layers*** palette
The ***New Layer*** dialog box appears.



2. In the ***Name*** text box, type the desired name
   NOTE: Giving layers a name that is descriptive to your project or the layer's contents allows you to manage layers more effectively.
3. OPTIONAL: To change the layer opacity, in the ***Opacity*** text box, type the desired percentage of opacity
   OR
   Click the arrow and adjust the ***Opacity*** slide bar
   NOTE: The percentage of opacity determines the extent to which other layers can be seen through this layer.
4. OPTIONAL: To color-code the layer, from the ***Color*** pull-down list, select the desired color
5. OPTIONAL: To change the layer mode, from the ***Mode*** pull-down list, select the desired mode
   NOTE: A layer's mode determines how its pixels blend with underlying pixels in the image. You can create a variety of special effects using layer modes.
6. Click **OK**
   The new layer appears on the ***Layers*** palette.

Creating Layers: Layers Palette Option

1. From the ***Layers*** palette, click **CREATE A NEW LAYER**
   The new layer appears on the ***Layers*** palette.

Deleting Layers

If you no longer need a layer, or wish to replace a layer, you can delete it. If you delete a layer in error, you can retrieve the layer by using either the Undo or Step Backward functions.

Layers can be deleted by using the menu option, right click option, or button option.

Deleting Layers: Menu Option

1. From the ***Layers*** palette, select the layer you want to delete
2. From the ***Layer*** menu, select ***Delete Layer***
   A confirmation dialog box appears.
3. Click **YES**
   The layer is deleted.

Deleting Layers: Right Click Option

1. From the ***Layers*** palette, right click the layer you want to delete » select ***Delete Layer***
   A confirmation dialog box appears.
2. Click **YES**
   The layer is deleted.

Deleting Layers: Button Option

1. From the ***Layers*** palette, select the layer you want to delete
2. Click the ***Delete Layer*** button
   A confirmation dialog box appears.
3. Click **YES**
   The layer is deleted.

Retrieving Deleted Layers

If you delete a layer in error, it is best to retrieve the layer immediately so that you do not lose any changes that have been made to the image since the layer was deleted.

Retrieving Deleted Layers: Undo Option

You can use this option only if you have not performed any other actions since deleting the layer.

1. From the ***Edit*** menu, select *Undo Delete Layer*
   OR
   Press [**Ctrl**] + [**Z**]
   The deleted layer reappears.

Retrieving Deleted Layers: Step Backward Option

You can use this option to retrieve a deleted layer, but you will lose any changes that you have made to the image since the layer was deleted.

1. From the ***Edit*** menu, select ***Step Backward***
   OR

Press [**Ctrl**] + [**Alt**] + [**Z**]
The most recent change to the image is erased.

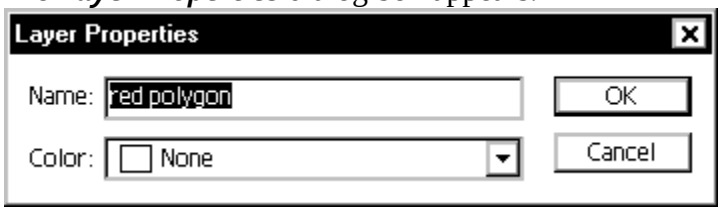
2. Repeat until the layer reappears

Renaming Layers

Since Photoshop assigns default names to layers, you may find it helpful to rename them. By identifying layers with a name that is meaningful to your project or the layer's contents, you can keep better track of your layers. You can name layers as you create them, or any time thereafter. Layers can be renamed by using the Layer Properties dialog box or the mouse option.

Renaming Layers: Layer Properties Dialog Box

1. Select the layer you want to rename
2. From the ***Layers*** menu, select ***Layer Properties...***
   OR
   From the ***Layers*** palette, right click the layer you wish to rename » select ***Layer Properties...***
   The ***Layer Properties*** dialog box appears.



3. In the ***Name*** text box, type an appropriate name for the layer
4. Click **OK**
   The layer's new name appears on the ***Layers*** palette.

Renaming Layers: Mouse Option

1. Double click the name of the layer you wish to rename
   A text box appears around the layer name.
2. Type the new layer name
3. Press [**Enter**]
   The layer's new name appears on the ***Layers*** palette.

Changing Layer Opacity

You can set a layer's opacity at any value from 0-100%. A layer with an opacity of 0% is completely transparent; a layer with an opacity of 100% is completely opaque. For example, if you create a layer with 50% opacity and apply a paint with 100% opacity to that layer, that layer will only be capable of displaying the paint at 50% opacity.

You can change the opacity when you create a layer or anytime thereafter. To change the opacity of an existing layer,

1. Select the layer whose opacity you wish to change
2. From the ***Layers*** palette, in the ***Opacity*** text box, type the desired percentage of opacity
   OR
   Click the arrow and adjust the ***Opacity*** slide bar
   The layer's opacity is adjusted.

Advanced Layer Options

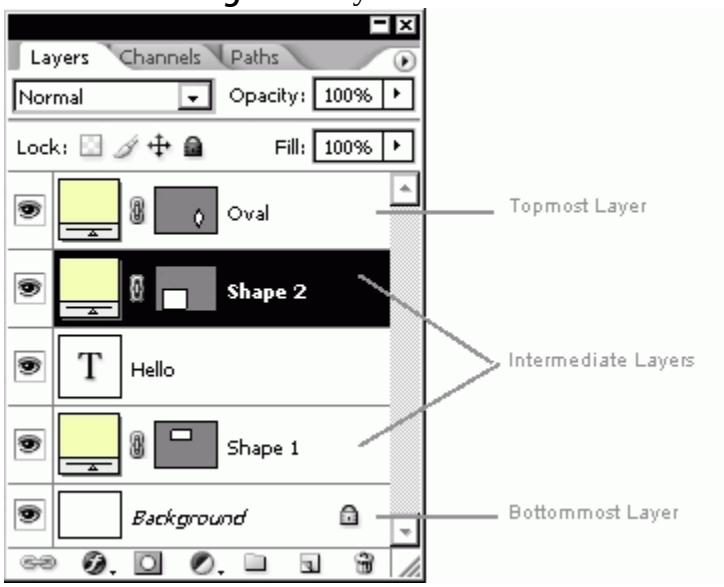
Although layers are constructed individually, it is helpful to rearrange and link layers when creating more advanced images. After you have fully experimented with the layers in your image, you can merge and flatten layers so that they function collaboratively.

Rearranging Layers

Layers are arranged within the ***Layers*** palette with the topmost layer on the ***Layers*** palette being the topmost layer of the image.

Since objects in an image often overlap, changing the stacking order of layers will change the appearance of your overall image. Rearranging layers can reveal and hide visible shapes.

NOTE: The ***Background*** layer cannot be moved.



Rearranging Layers: Drag-and-Drop Option

1. From the ***Layers*** palette, select the layer you wish to move
2. Click and drag the layer to the desired position
3. Release the layer
   The layer is now in the new position.

Rearranging Layers: Menu Option

1. From the ***Layers*** palette, select the layer you wish to move
2. From the ***Layer*** menu, select ***Arrange*** » *desired option*
   Your layer is moved accordingly.

   Bring to Front Shift+Ctrl+]
   Bring Forward Ctrl+]
   Send Backward Ctrl+[
   Send to Back Shift+Ctrl+[
   Reverse

Rearranging Layers: Keyboard Option

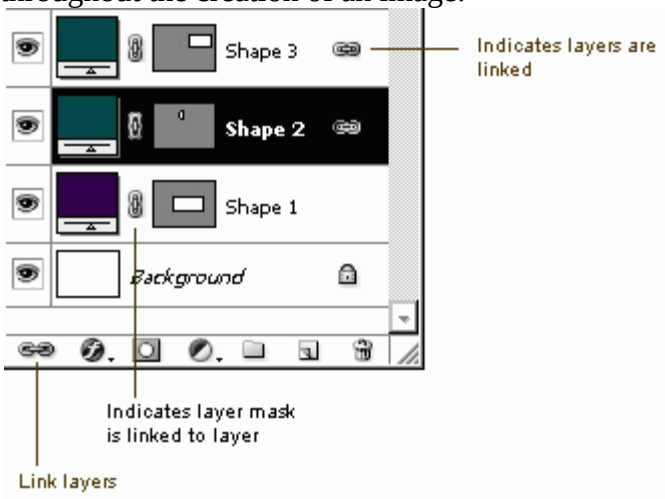
1. From the ***Layers*** palette, select the layer you wish to move
2. Press the keyboard command for the desired option
   The layer moves to the selected position. Confirm the new layer placement by checking the layer position on the ***Layers*** palette.

Option	Action	Keyboard Command
Bring to Front	Sends layer to topmost position	[**Shift**] + [**Ctrl**] + **]**
Bring Forward	Sends layer up one position	[**Ctrl**] + **]**
Send Backward	Sends layer down one position	[**Ctrl**] + **[**
Send to Back	Sends layer to bottommost position	[**Shift**] + [**Ctrl**] + **[**

Linking Layers

If you want multiple layers to move as a single unit within the image window, you should link them. You must link a minimum of two layers, but there is no limit to the number of layers that can be linked together. Layers do not need to be contiguous in order to be linked. All layers will retain their individual characteristics. Linking and unlinking layers can happen repeatedly

throughout the creation of an image.



1. On the ***Layers*** palette, press [**Ctrl**] + select the layer(s) you want to link
2. From the ***Layer*** palette, click **LINK LAYERS**
   A LINK icon appears next to layer names, indicating that the layers are linked.

Moving Linked Layers in an Image

1. From the ***Layers*** palette, select the linked layer you want to move
2. From the ***Toolbox***, select the *Move Tool*
3. Within the image window, click and drag to the new location
   NOTE: The layers move in unison while maintaining their distance relationships to each other.

Unlinking Layers

1. From the ***Layers*** palette, select the layer you want to unlink
2. From the ***Layers*** palette, select **LINK LAYERS**
   The LINK icon disappears and the layer is no longer linked.

Merging Layers

Merging layers fuses layers together so they no longer function individually. Images saved with individual layers occupy a lot of file space; merging layers compresses your image so it takes up less file space. Additionally, if you want to apply an effect to your entire picture at once, you will need to merge layers; otherwise, the effect will only be added to one layer at a time. For example, if you had a composite picture made up of many layers and you wanted to create a mosaic of the entire thing using a filter (not just one layer), you would need to merge the layers and apply the effect to the entire picture. In Photoshop, you can merge linked layers, visible layers, or merge down. To merge all layers into one, you can also flatten the image.

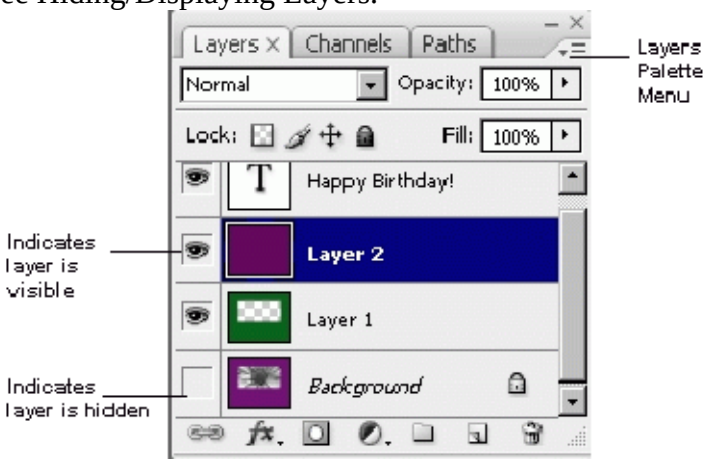
Merging Linked Layers

Merging linked layers allows you to determine which layers will be merged into one layer and which will remain independent. Layers that are linked will combine into one layer, while those that are not linked will remain independent.

1. From the ***Layer*** menu, select ***Select Linked Layers***
2. From the ***Layer*** menu, select ***Merge Layers***
   OR
   Press [**Ctrl**] + [**E**]
   The selected linked layers combine to form a single layer.

Merging Visible Layers

You can also merge visible layers. Visible layers are identified by the VISIBILITY icon, which appears in the left column of the ***Layers*** palette. You can toggle between visible and hidden by clicking the icon in the ***Visible Layer*** column. For more information on hiding layers, see Hiding/Displaying Layers.



1. On the ***Layers*** palette, hide the layers you do not wish to merge (including the background if you do not wish to merge it)
2. Select one of the remaining visible layers
3. From the ***Layer*** menu, select *Merge Visible*
   OR
   Press [**Shift**] + [**Ctrl**] + [**E**]
   All of the visible layers on the ***Layers*** palette are merged into a single layer. The hidden layers are preserved as independent layers.

Merging Down

Even if you do not have any layers linked, you can combine two contiguous layers on the ***Layers*** palette.

1. Select the topmost layer of the two layers you wish to merge
2. From the ***Layer*** menu, select ***Merge Down***
   OR
   Press [**Ctrl**] + [**E**]
   The selected layer merges with the layer immediately below it on the ***Layers*** palette.

Flattening Layers

Although flattening layers will compress your image so that it takes up less file space, it is different from merging in that it discards hidden layers, combines visible layers into a single layer, and removes transparent areas from an image.

1. Make sure that all the layers you wish to flatten are visible on the ***Layers*** palette
2. From the ***Layer*** menu, select ***Flatten Image***
   If there are hidden layers in the image, a dialog box appears confirming your request to discard hidden layers.
3. Click **OK**
   The visible layers are now flattened and hidden layers have been discarded.

Adjusting Image Resolution

Images consist of pixels, which are little squares of color; the higher the number of pixels in an image, the more defined that image will appear. The density of pixels impacts image quality and file size. This density is most often measured as pixels per inch (ppi) and is called the resolution.

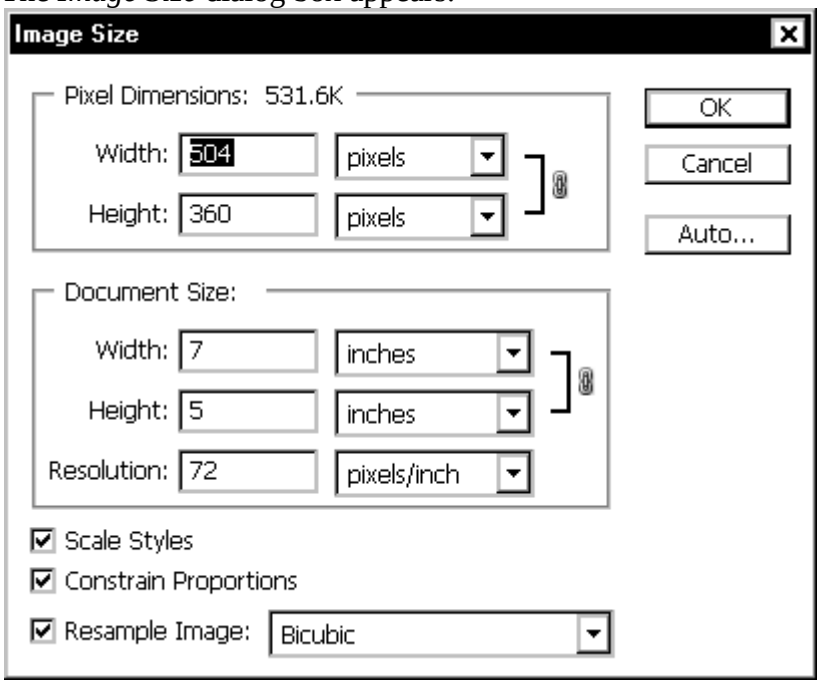
The correct resolution for your image will depend on how you will be using it. Images to be used in print documents generally need a higher resolution. If you are having your document professionally printed, check with your printer for their recommendation. Images to be used online can generally have a lower resolution. The resolution will affect file size and load time.

For a discussion of suggested resolutions and the relationship between pixel dimensions and resolution, refer to Photoshop CS3 ***Help*** by searching "***image resolution***."

HINT: For best results, do all fine-tuning and adjusting of the image before you lower the resolution. This will result in a clearer image.

To change image resolution:

1. From the ***Image*** menu, select ***Image Size...***
   The *Image Size* dialog box appears.



2. Under the ***Document Size*** section, in the ***Resolution*** text box, type the desired resolution
3. Click **OK**

Retouching Images

There are several options available when retouching your images. Three tools that aide in retouching are the Spot Healing Brush Tool, Healing Brush Tool, and the Patch Tool.

The Healing Tools

The ***Healing*** tools allow you to fix flaws such as scratches, blemishes, or inconsistencies in your images***.*** Located in the ***Toolbox***, the ***Healing Brush Tool*** contains three additional hidden tools: the ***Spot Healing Brush Tool***, the ***Patch Tool***, and the ***Red Eye Tool***.

Healing Brush Tool
Allows you to conceal an undesirable portion of an image, such as a scratch, by covering the area with a sample you select from another part of the image.

Spot Healing Brush Tool
Allows you to conceal an undesirable portion of an image by covering the area with a sample that Photoshop automatically selects from the surrounding area.

Patch Tool
Allows you to select an irregularly shaped portion of an image to conceal before selecting the sample that will cover it.

Red Eye Tool
Darkens a specific point to hide red eye in an image.

Healing Brush Options

Each of the ***Healing Brush*** tools offer several options that adjust the effects upon your image.

Hardness
Refers to how dramatic the retouch is going to be. The greater the percentage, the more defined the retouch will appear. The smaller the percentage, the less obvious the edges of the retouch will appear.

Spacing
Refers to how much space is between each instance of the brush tip in a brush stroke. A low percentage makes the brush strokes tighter, and a high percentage makes them farther apart.

Angle
Controls the alignment of the brush tip.

Roundness
Controls the height of the brush while the width remains the same. This controls whether the brush appears more circular or more elliptical. The lower the percentage, the shorter and more elliptical the brush will appear.

Size: Off
Keeps the diameter of the brush consistent.

Size: Pen Pressure
Varies the diameter of the brush based on the force applied with the pen. This option is only relevant if you are using a pressure-sensitive pad and stylus.

Size: Stylus Wheel
Varies the diameter of the brush based on your manipulation of the stylus wheel. This option is only relevant if you are using a pressure-sensitive pad and stylus.

Mode
Replace leaves the edges of the retouched area naturally jagged in contrast to the smooth edges left by the ***Healing Brush*** tools.

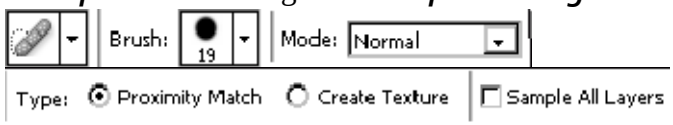
Proximity Match
Covers the area with pixels copied from the neighboring area.

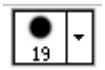
Create Texture
Covers the area with a new texture created by sampling and recombining pixels from the neighboring area.

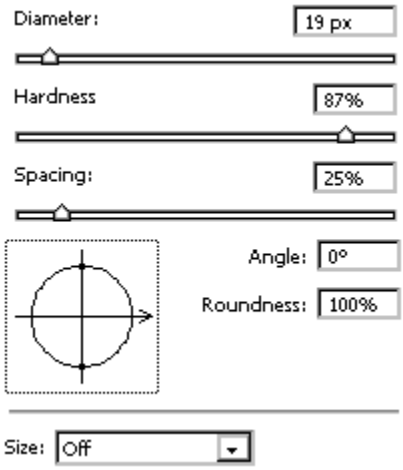
Using the Spot Healing Brush Tool

The ***Spot Healing Brush Tool*** works best on small flaws that require only a few clicks to retouch. With the ***Spot Healing Brush Tool***, you do not need to select a sample first; it will automatically heal the inconsistency using the surrounding pixels to blend the retouched area. The ***Spot Healing Brush Tool*** samples the new pixels for the area randomly, so if you do not like your first result, you can undo it and try again until you achieve the results you like.

1. From the ***Toolbox***, click the **SPOT HEALING BRUSH TOOL**.
   The ***Options*** bar changes to the ***Spot Healing Brush Tool Options*** bar.



2. To adjust the brush, on the ***Spot Healing Brush Tool Options*** bar, click **BRUSH** 
   The ***Brush Options*** palette appears.



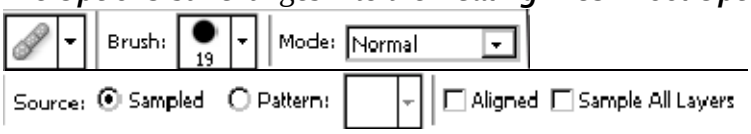
3. To adjust the ***Diameter***, ***Hardness,*** or ***Spacing*** slide the arrow until you reach the desired value
4. In the ***Angle*** text box, type the desired angle
5. In the ***Roundness*** text box***,*** type the desired percentage of roundness.
6. From the ***Size*** pull-down list, choose one of the three options: *Off*, *Pen Pressure*, or *Stylus Wheel*
7. To adjust how the healing action will affect the image, select a mode
8. To adjust how the ***Spot Healing Brush Tool*** will interact with the pixels of the image, select ***Sampled*** or ***Pattern***

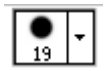
9. If you have more than one visible layer that you want to make adjustments to, select ***Sample All Layers***
10. On the image, click on the blemish you want to retouch

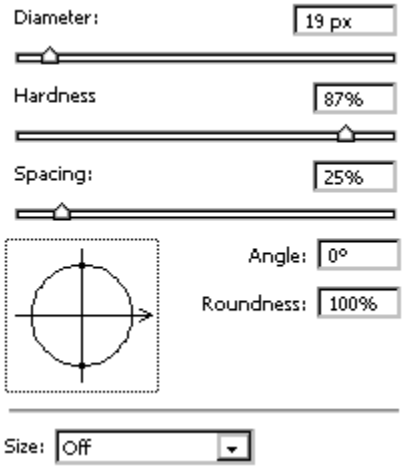
Using the Healing Brush Tool

The ***Healing Brush Tool*** requires that you first select an area of pixels that you want to copy and then decide where to paste them. This tool is useful for retouching larger areas that require more attention to detail and cannot be handled by the ***Spot Healing Brush Tool***. After you set your brush and sample options, you are ready to select your sample area and begin touching up your image.

1. From the ***Toolbox***, click the **HEALING BRUSH TOOL** .
   The ***Options*** bar changes into the ***Healing Brush Tool Options*** bar.



2. To adjust the settings for the ***Brush***,
   a. On the ***Healing Brush Tool Options*** bar, click **BRUSH:** 
   The ***Brush Options*** palette appears.



   b. To adjust the ***Diameter***, ***Hardness,*** or ***Spacing***, slide the arrow until you reach the desired value
      OR
      In the text boxes, type the desired size or percentage
   c. In the ***Angle*** text box, type the desired angle
   d. In the ***Roundness*** text box***,*** type the desired percentage of roundness.
   e. From the ***Size*** pull-down list, choose one of the three options: *Off, Pen Pressure,* or *Stylus Wheel*
3. To adjust the mode, in the ***Healing Brush Tool Options*** bar, from the ***Mode*** pull-down list, select a mode
4. To retouch areas with one hand-picked sample,

   a. In the ***Source*** section, select ***Sampled***
   b. To select the sample that will cover the areas to be retouched, press [**Alt**] + click the area to copy
   c. To cover a portion of the image with the copied portion, drag or click the mouse
      HINT: Dragging the brush will begin to "repaint" the entire original image, beginning with the selected sample point.
5. To retouch the image with a pattern,
   a. In the ***Source*** section, select *Pattern*
   b. From the drop-down ***Pattern Picker***, select a pattern
   c. To cover a portion of the image with the pattern, drag or click the mouse
6. To retouch areas with a sample relative to the distance and direction from the source point,
   a. In the ***Source*** section, select *Aligned*
   b. Select your sample area
   c. Click the area to retouch
      HINT: Until you define a new sample area, each time you click the ***Healing Brush*** tool, the sample area will be drawn from the same relative distance and direction from the area to be retouched as it was in this first sample.
   d. Drag or click the brush
      The sampled area will move with the brush, it will stay parallel with the brush even after you release the mouse.
      HINT: Dragging the brush will begin to "repaint" the entire original image, beginning with the selected sample point

Using the Patch Tool

The ***Patch*** tool is another ***Healing Brush*** tool, but it is different from the other healing tools in that you first select the area to retouch and then find the part of the image to replace it.

1. From the ***Toolbox***, click the **PATCH TOOL**
   The mouse pointer turns into a patch .
   The ***Options*** bar changes into the ***Patch Tool Options*** bar.

2. On the ***Patch Tool Option*** bar, click **NEW SELECTION**
3. From the ***Patch*** section, select ***Source***
   NOTE: If you want the edges of the selection to be more blended, you can feather the selection before you move it, but only if the ***Patch Type*** is ***Destination***.
4. To minimize the effects of the patch, select ***Transparent***
5. Select the area to retouch by clicking and dragging the mouse to encircle it
   A ring of animated dashes appears around your selection.
   HINT: To hide the marching ants, press [**Ctrl**] + [**H**].
6. Click and hold the mouse inside the selection
   The patch pointer turns into a patch with an arrow

7. To select the area which will replace the section, drag the selection to the area that will replace it
   NOTE: The selected area displays a "preview" of the sample as you drag over the image.
8. Release the mouse
   This area blends into and replaces the selected area.
9. When finished, to deselect the area, press [**Ctrl**] + [**D**]