

## Introduction to Adobe Photoshop 5.5

This is two workshops designed to introduce you to Adobe Photoshop, a powerful graphics creation and manipulation tool. You don't need to be an artistic genius or have previous experience with Photoshop.

Photoshop 5.5 for Macintosh and Photoshop 5.5 for Windows are almost identical programs. Keyboard commands are the same except that Mac uses the command (Apple) key, whereas Windows uses the Control key, and Windows calls the Option key Alt.

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- ☆ It is being used in an academic class, and nowhere else;
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- ☆ The source is always cited, even if the work is only used in a presentation;
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## What is Photoshop?

- ☆ An image editing program
- ☆ An electronic darkroom
- ☆ Current version is 5.5. There are currently no updates needed. Updates (not upgrades) are available for free from [www.adobe.com](http://www.adobe.com)
- ☆ Comes with ImageReady 2.0 for creating and editing web graphics

## Primary Photoshop uses

- ☆ Adjust scanned images for better screen display or printing
- ☆ Change an image's file format to:
  - Move between applications and platforms
  - Display on the World Wide Web
- ☆ Produce special effects
- ☆ Create original artwork

## Minimum system requirements

- PowerMac or Pentium
- As much RAM as possible, 64 MB minimum
- 100+MB free disk space for scratch files

## Photoshop settings

Photoshop's defaults are its original settings for window/palette locations, tools, and command dialog boxes when the program is first installed.

Each time a tool, palette or command setting is changed, Photoshop saves the new configurations in its Preferences file on the hard disk in the Settings folder in the Photoshop folder as Adobe Photoshop 5.5 Prefs in Mac and Adobe Photoshop 5.5 Prefs.psp in Windows.



On your computer you can delete the preferences file, and allow Photoshop to create a new one with its default settings.

## Restore standard settings.

### Toolbar defaults:

1. Click the toolbar's default colors button or press the letter D. This button restores the foreground color to black and the background color to white.
2. Click the standard windows button at the bottom left of the toolbox to display the document window with title and scroll bars.

### Palette defaults:

1. To show a specific hidden palette, go to the Window menu and choose the palette from the list.
2. To display all palettes in original positions, press Command/Ctrl K, click the "Restore Palette locations to Default" button. This is not undo-able!



Reset Palette Locations to Default

### Tool defaults

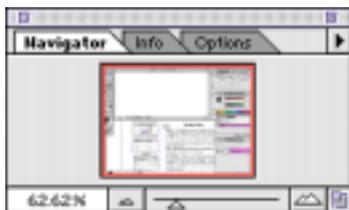


1. To reset all tool attributes, choose Reset All Tools from the pop-out menu on any Options palette.
2. Click OK or Yes to any dialog boxes.

## Photoshop Basics

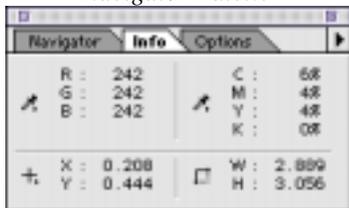
### Palettes

**Navigator:** This palette presents a thumbnail view of the image and a highlighted box that indicated the size of the image window. Across the bottom of the palette are the image magnification and the zoom buttons and slider.



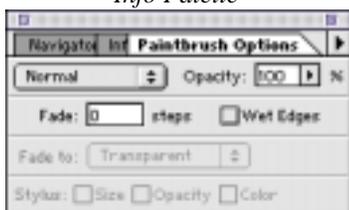
Navigator Palette

**Info:** This palette gives you information about the coordinates of the cursor and color information for the pixel directly under the pointer. Also shows the width and height of selections.



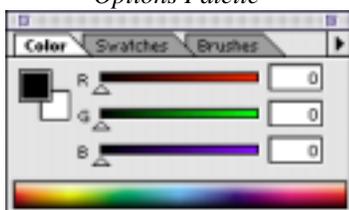
Info Palette

**Options:** The Options palette changes names depending on which tool is selected. It allows you to choose the attributes, appearance, or behavior of most tools.



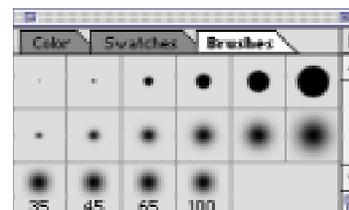
Options Palette

**Color/Swatches:** These are color selection palettes used to set colors that will be used by your tools. Colors that you sample (click) will change the foreground or background (Option/Alt - click) color on the toolbox. You can set special color palettes or add your own custom colors to the Swatches palette.



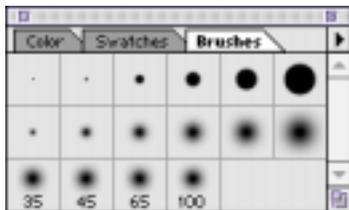
Color/Swatches Palettes

**Brushes:** Contains the currently defined brushes and works with all eight painting tools, allowing you to select the shape and size of the tool.



Brushes Palette

**Actions:** It's easy to reproduce frequently used multi-step processes and techniques. You use the palette to execute actions and to create or edit them.



Brushes Palette

**History:** Photoshop 5's answer to multiple Undo. Remembers the last 20 steps by default to allow you to go back more than one step if you change your mind.



Actions Palette

**Layers:** Lists the layers for the currently active window. Create new layers, delete layers, move layers within a file, duplicate layers, view a single or selected layer(s), and set options for each layer in an image.



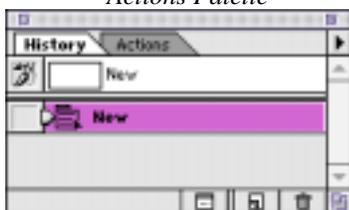
Layers Palette

**Channels:** Channels are how Photoshop remembers the color information of an image, similar to layers. They are also used to save selections (alpha channels).



Channels Palette

**Paths:** Paths are vectors like in Illustrator or Freehand. A path is a Bezier curve path created with the pen tool.



History Palette

## Contents of the Toolbox

Option (Alt)-clicking on a tool toggles along hidden subtools.

*Marquee (M)*: Rectangular, elliptical, or single column or row selection tool; includes Crop Tool (C)

*Move (V)*: Moves a selection, layer, or ruler guide

*Lasso (L)*: Freeform, polygon, or magnetic selection tool

*Magic Wand (W)*: Makes selections by contiguous color range

*Airbrush (J)*: Paints a soft-edged (spray-painted) stroke

*Paintbrush (B)*: Paints a soft-edged stroke

*Rubber Stamp (S)*: Clones (duplicates) an area: picks up an area of color/pattern and repeats it elsewhere

*History Paintbrush (Y)*: Paints to the last-saved version

*Eraser (E)*: Reverts pixels to the background color or a saved image, or removes pixels on a layer

*Pencil/Line (N)*: Paints with hard-edged stroke; Draws straight lines of varying width with optional arrowheads

*Sharpen/Blur/Smudge (R)*: Sharpens or Blurs a part of an image; Smudges an image like a finger dragging through chalk, pastel or wet paint

*Dodge/Burn/Sponge (O)*: Lightens, darkens or increases/decreases color saturation

*Pen (P)*: Seven tools used with the Paths palette to create and manipulate vector paths

*Type/Type Mask (T)*: Creates text or vertical text or Masks for text-shaped selection borders

*Measuring (U)*: Aids in measuring distances in an image

*Gradient (G)*: Fills selection or area with various blended colors

*Paint Bucket (K)*: Fills single color area with foreground color

*Eyedropper (I)*: Samples a color from your image

*Grabber Hand*: Moves viewpoint of image in window, without changing the image itself

*Zoom*: Magnify or zoom out from an image; 1/16 to 16 times normal size

*Foreground/Background color*: Buttons that allow you to change, swap (X), or revert (D) to default color settings

*Standard/Quick Mask Mode (Q)*: Buttons that turn the quick mask on and off

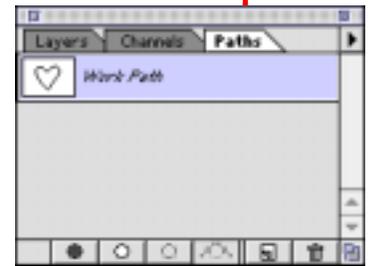
*Screen Mode Buttons*: Allow swapping among normal display, full-screen image with menu bar, or full-screen image without menu bar.

*Jump-to Button*: Clicking this button will open your current image in your chosen image-editing program, usually ImageReady or Illustrator.

## Photoshop 5.5 Navigation Shortcuts and Time-Savers

Photoshop has new keyboard shortcuts that move the file exactly one screen at a time, which is very helpful when retouching a file at 100% view. Here are some tips for navigating using an extended keyboard:

- ☆ Press the Home key to go to the upper-left corner of the image.
- ☆ Press the Page Down key to go down one screen.



Paths Palette



Photoshop's Toolbox. Tools are listed left to right, top to bottom.

- ☆ Press Command/Ctrl+Page Down to move one screen to the right.
- ☆ Press Command/Ctrl+Page Up to move one screen to the left.
- ☆ Press the End key to go to the bottom right-hand corner of the image.

As you may know, there are several ways to move an object in Photoshop:

1. You can select an area and click and drag.
2. You can press Shift to constrain movement to a 90-degree axis.
3. You can press Command in Mac or Ctrl in Windows and press the Up, Down, Left, or Right Arrow key.
4. You can choose Edit, Transform, Numeric, and enter X and Y values in the resulting dialog box.

When you've been altering settings in a Photoshop dialog box, you can reset the setting to the settings with which you began without needing to choose Cancel and exit the dialog box. Simply press Option (Alt) to change the Cancel button into a Reset button. Click the Reset button to return the dialog box settings to their previous values.

There are times you may wish to reapply a function using the last-used settings (especially the New File dialog box). To open a dialog box set to the last-used settings, press Option (Alt) and choose the function from the menu.

## Using Selection Tools

All selection tools create "marching ants" — enclosed areas to control subsequent editing steps. Therefore, all selections must be "closed." Any changes made can only apply to pixels within the selection. Selection tools can be used together to create your perfect mask. Modifier keys work similarly with each tool.

- ☆ The Marquee selects oval, round, square, or rectangular areas. Holding the Shift key while selecting constrains you to perfect squares or circles. The Option (Alt) key draws the rectangle or ellipse around a central point.
- ☆ The Lasso tool lets you draw a selection boundary. When you release the mouse

button, the selection will close with a straight line from the ending point to the starting point.

- ☆ The Polygon Lasso also creates freeform selections, but with straight lines between points you click.
- ☆ The Magnetic Lasso is very cool. It creates a selection following the contours of an image. Since there are no objects in Photoshop, it uses contrast and color differences to determine its path.
- ☆ The tolerance of the Magic Wand can be changed so that more or fewer adjacent color areas are selected. The lower the tolerance, the fewer the color areas selected. To fill out a selection use **Select... Grow**. To select everything noncontiguous in the color tolerance, use **Select... Similar**.
- ☆ To add to a selection with any selection tool, hold down the Shift key while making additional selections.
- ☆ To subtract from a selection with any selection tool, hold down the Command (Control) key while selecting what you wish to remove.
- ☆ Change a selection to the foreground color with **Edit..Fill** or Option Delete (Alt Backspace). Press Delete (Backspace) to fill with the background color.

## Using the Type Tool

The Type (or Text) tool creates text-shaped pixels. Adobe did designers everywhere a great service by upgrading the Type tool in Photoshop 5. In previous versions, type was rasterized as soon as you hit the OK button. Therefore, if you made one mistake you'd have to start over. Now your text retains its vector information until you are ready to rasterize it (**Layer...Type...Render**). But, until you do, you can not apply any of the cool effects for which Photoshop is famous, like filters, gradients or color correcting.

- ☆ To create type, click on the type tool and click in your document. If you do not click exactly where you would like the type to appear, don't worry; you can change the location later. Use the Vertical Type tool to



The Type Tool Dialog Box

create upright text.

☆ When the Type Dialog Box appears. Choose the font, point size, and other options you want. Select the alignment: right, centered, or left. Then type your text in the box at the bottom exactly as you want it to appear. The type will be in the current foreground color unless you click on the swatch and change it. The type will appear in the box in the font, style and size you have chosen. Click OK when done.

**Kerning:** Closing or opening space in between two characters.

**Tracking:** Closing or opening space in a group of characters.

**Leading:** The amount of space between two lines of type.

☆ Your type will appear in your document on it's own layer. The text can be moved with the move tool. Notice how the Background is not affected.

☆ **Note:** For complex text images, using Adobe Illustrator or Macromedia FreeHand is recommended. Text images may be easily imported into Photoshop. Use of these programs is not covered in this class.

You can use ImageReady to edit type set in Photoshop. However, the ImageReady interface is slightly different. To edit type in Photoshop, you double-click the type layer to open the Type Tool dialog box. However, the same trick doesn't work in ImageReady. To edit type in ImageReady, choose the Type tool and select the text in the image document window. To modify the font, size, or local formatting (bold, italic, etc.),

use the Type palette. To display the Type palette, choose **Window...Show Type**.

**Do** use Layer effects to create outstanding type displays.

**Do** use Photoshop to work with type over 20 points.

**Don't** compose large paragraphs in Photoshop. There are vector and page layout programs that are much better at handling large amounts of type.

**Don't** create type smaller than 20 points in Photoshop unless the type you are creating is a part of a collage or artwork. The raster (bitmap, pixilated) nature of Photoshop does not lend itself well to clean type at small point sizes.

## Layer Effects

Some very cool effects can be found in the **Layer...Effects** submenu:

**Drop shadow:** A drop shadow usually sits behind and just off to the side of the object it is shadowing.

**Inner shadow:** This effect gives the illusion that you are looking through a hole in the shape of a word that is casting a shadow onto whatever is below.

**Outer Glow**

**Inner Glow**

**Bezel & Emboss** Gives a sculpted look to your layer

## Rulers

☆ To show rulers on the top and left sides of a document window, choose Show Rulers from the View menu. When the rulers appear, the units will be the same as those you last selected in the Info palette. Reset the units in the Info palette or through the Units submenu of the **File...Preferences**. You can also access this dialog box by double-clicking on either ruler.

The cross-hair in the upper left hand



with Rulers and Zero Point showing

corner of the rulers is used to set the Zero Point. The Zero Point can be reset to the upper left-hand corner by clicking on the cross-hair.

## Using the Layers Palette

Layers are like clear sheets of acetate laid over your background layer. They allow you to add to and change your image without losing the paint underneath.

*Create a new layer.* Click on the New Layer icon at the bottom left of the palette.

*Delete a layer.* Drag the layer to the trash can at the bottom right of the palette.

*Move a layer within a file.* Drag the layer name or thumbnail to the desired location in the layers palette and drop it.

*Duplicate a layer.* Drag the thumbnail of the layer you wish to copy to the New Layer icon.

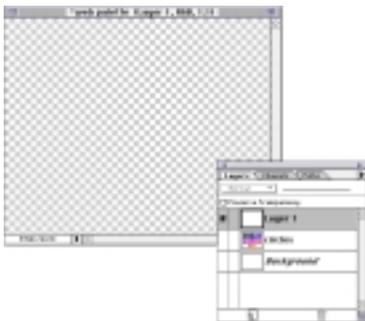
*Hide a layer.* Click on the eye icon in the left column of its layer.

*View a single layer.* Option (Alt)-click on the eye icon of the layer you'd like to isolate. Note that this does not automatically make the layer active. Option-clicking again will make all layers visible again.

*Link layers.* Click on the second column to link layers so they can be moved together without merging them.

Opacity refers to how much of the image that is beneath a given layer is visible through that layer. 100% opacity means the layer is totally opaque (solid) wherever there are colored pixels.

Preserve transparency is layer-specific. It masks out any transparent pixels on a layer, so only pixels that already have paint can be altered, and, also, cannot be removed. This is similar to how a selection does not allow you to paint outside the marching ants, without the bother of making a selection.



Photoshop's representation of Transparency

## Background Layers

As you work with layers, remember these key characteristics of background layers:

- ☆ It cannot include transparent pixels
- ☆ The opacity of a background layer cannot be set lower than 100 percent
- ☆ You cannot reposition a background layer in the Layers palette, it must always be at the bottom, and no other layer may be moved beneath it
- ☆ You can have only one per image
- ☆ You cannot convert a layer into a background layer
- ☆ Deleting a selection in the background layer fills the selection with the current background color

To create a background layer in an image without such a layer, choose Layer, New, Background. Photoshop will place a background layer at the bottom of the layer palette.

## Transparency

The gray and white checkerboard you see in layers represents transparency. It is like painting on a clear sheet of acetate. When you draw on the transparency, the pixels on the background and other layers are protected. If you select part of an image on a layer, the background will not be part of the selection.

## Layers and files

Each layer takes up approximately as much storage space as the original single-layer file

Use only as many layers as you need,

**BUT—**

Use as many layers as you need!

☆ Merging layers combines two or more layers into a single layer

☆ Flattening layers combines all document layers into a single background layer

The lower left corner of the document window on Mac or the Status Bar on Windows shows the current file size:

The left number gives the size of the file if saved in a single layer (flattened)

The right number gives the file size in RAM

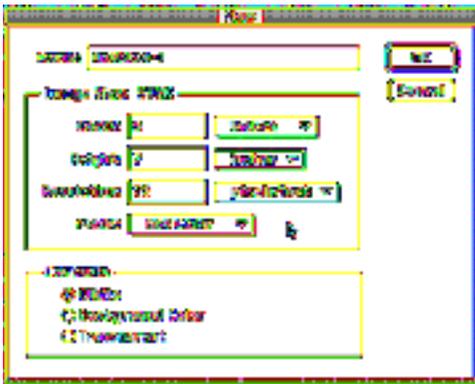
Only Photoshop native files can have layers!

## Creating a New Image

Notice that when Photoshop is launched, it does not automatically open a blank file for you. You will see only the palettes and settings that you left open the last time you quit Photoshop. All of the lab machines should open with the default palettes and settings.

**Create a New document.** Choose the size you desire. You can easily make it smaller later, so overestimate, if necessary. We can also increase the size later. Choose a name for your document now if desired, but remember, *this does not save a copy on your disk!* You must use the **File... Save** or **File... Save As...** command to do this.

Your saved image size will increase exponentially



The New File Dialog Box

as you increase the dpi. Therefore the saved file size on a 150 dpi file is *four times* that of a 72 dpi file, not just twice as large.

## Saving Photoshop documents

A file format is the manner in which a file is stored or retrieved

Each time you save a file, that file is saved in a particular file format that specifies how the data can be used once saved.

Most graphics applications let you save files in a variety of formats, Photoshop is no exception.

### Proprietary or native formats

- ☆ Optimized for the application program that created it
- ☆ Typically, only the native application can read native document files, although several programs can read Photoshop files, including

- Canvas, MetaTools Painter, Adobe InDesign and Adobe ImageReady.

- **TIP:** Keep Photoshop files in native format (.psd) as you work on them to preserve layers, etc.

- ☆ Files are optimized, so you can work more quickly
- ☆ Layers are lost when you convert to other formats
- ☆ As needed, you can save additional copies of your files in different formats

### Portable file formats

- ☆ Can be moved from one application to another, and often from one computer system to another
- ☆ These formats can be opened and used by most graphics, word processing, and desktop publishing applications.
- ☆ To see the formats in which you can save a document, press the arrow to the left of the Format: box in the Save As... dialog box.
- ☆ You will see a list of possible file formats. Gray formats (Mac only—Windows will only show possible formats) are unavailable in the file's current color mode or as limited by layers or channels.

## Which file format to choose?

### TIFF (Tagged Image File Format)

- Specifically designed for the printing of scanned images; provide great precision and flexibility
- Can be color-separated

- LZW: Built in lossless compression scheme—no pixels are lost when compressed

- ☆ Supported by most professional publishing software, such as QuarkXPress and Adobe PageMaker or InDesign

- ☆ Compression can cause problems — avoid if you have the disk space

- TIFFs are encoded for Mac or Windows

- ☆ Use Mac encoding if you work specifically on the Mac (it will be faster)

- ☆ Use Windows encoding to use file on Windows or if moving between platforms

- Can include clipping paths that enable images to be silhouetted. When an image with a clipping path is imported into an application that

recognizes clipping paths, the area outside the path is transparent on screen (usually) and when the file is printed.

### Photoshop EPS (Encapsulated PostScript)

- ☆ Widely used in prepress applications
- ☆ EPS images are already translated into PostScript, so they print more quickly and with fewer PostScript errors than other formats on PostScript output devices
- ☆ Can be color-separated
- ☆ Can also include clipping paths (like TIFF).

NOTE: on Wintel, the screen preview will not be transparent, but it will print OK.

- ☆ Big files (larger than PSD or TIFF)

### PICT

- ☆ Native Mac graphics format
- ☆ Good format for screen presentations, etc.
- ☆ Fair printing format — can cause frequent printing problems with PostScript printers

### GIF (CompuServe GIF)

Graphics Interchange Format developed by CompuServe — a standard on the WWW

- ☆ Maximum of 256 colors. Uses indexed color to keep file size small (lossy)
- ☆ Most appropriate format for images with flat color areas
- ☆ GIF images can be made transparent and can be set to load as interlaced graphics
- ☆ Uses indexed color to keep file size small

### JPEG

Joint Photographic Experts Group — the standard for photos on the WWW

- ☆ JPEG compression (lossy) works best on photographs and continuous color images
- ☆ Compression level is a trade-off between saved image size and retained quality
- ☆ JPEG files can be compressed the smallest, for fastest file transfer, or barely compressed for preservation of image quality.

## Moving files between Mac & Windows

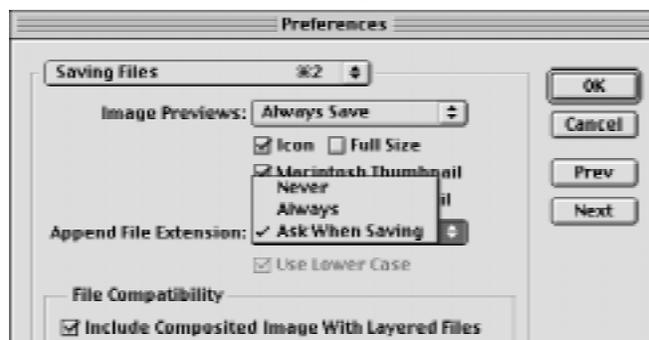
Photoshop 3, 4, 5 & 5.5 share the same format and files can be moved back & forth and

- between platforms (some color shifts can occur).
- To open a Mac file in the Windows (or vice-versa) version of Photoshop, save that Mac file using a file name with no spaces or punctuation, and add .psd to the end of the file name.

**Windows users:** Photoshop will always automatically put the proper extension on the file.

File Format	Extension
Native Photoshop	.PSD
TIFF	.TIF
EPS	.EPS
PICT	.PCT
GIF	.GIF
JPEG	.JPG

**Mac users:** PS 5.5 will now add the DOS file extension to the end of each file you save by default—to let you, and the world, know the format. You can set it to not add it, or at least ask you, in **Preferences... Saving Files**.



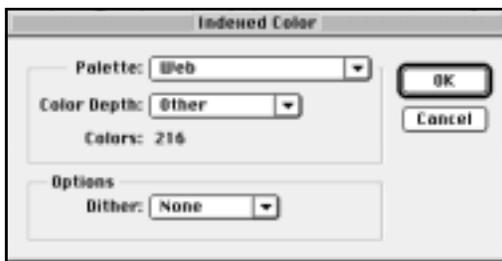
### Color Modes

- (in the **Image... Mode** submenu)
- ☆ **Greyscale: mode** This is not black & white! A greyscale image has 256 shades of grey, from solid black (0) to pure white (255), used to make up a picture.
- ☆ **RGB mode:** Red, Green, & Blue are additive colors of light displayed on your monitor. The more saturated (dense) the colors become, the closer the value gets to white.
- ☆ **CMYK mode:** Cyan, Magenta, Yellow, & black are subtractive pigment inks used in the four-color printing process; therefore they are called process colors. Translating an image from the computer screen (RGB) to the printed page requires color separation, so RGB must be converted into CMYK files before separations can be created for truly

accurate high-end printing. Low-end printers (StyleWriters, DeskWriters or DeskJets, or Epson Stylus) will do an adequate interpretation of RGB for home printing.

☆ *Bitmapped mode:* In contrast to greyscale mode, bitmapped mode offers only black and white pixels — no colors and no shades of gray. These images cannot be scaled, distorted or treated with filters. To convert a file to bitmapped mode, it must first be converted to greyscale.

☆ *Indexed color mode:* Indexed color is a custom palette of colors that is particular to an image. GIF files must be converted to an indexed color mode before saving to reduce the saved file size.



Changing to Indexed Color

☆ A *palette* can either refer to a set of tools in Photoshop or to the set of colors comprising an image. When you save a GIF image for the web you need to use a palette of no more than 256 colors.

☆ The palette that you select depends on your image and on the platform on which you expect to display your image. If you're not sure which platform will be used, you may wish to use a more limited web-safe palette of 216 colors.

☆ The reason to use the more limited palette is that Windows limits the number of "free" colors in a browser window to 216 when the monitor can only display 256 colors. 40 colors are reserved for use by the Windows system itself to draw the screen. If an image in a browser window takes more than 216 colors, Windows will substitute "close" colors for the extra ones. The result is that your image will not look as you expected if someone views it in Windows. Note that if the monitor allows more than 256 colors, this problem does not occur.

## Using the Painting Modes

Photoshop offers different painting modes, found on the pop-up menu on the various painting tools' Options palettes and on the layers palette. These modes affect the way the overlying paint interacts with and changes the underlying pixels.

☆ *Normal mode:* (1) The blend paint covers the underlying pixels. This is the most common mode used.

☆ *Darken mode:* (2) Only pixels lighter than the blend color are changed.

☆ *Lighten mode:* (3) Only pixels darker than the blend color are changed.

☆ *Hue mode:* (4) The hue of the underlying pixels changes to that of the blend color, but the saturation and luminosity (brightness) are maintained.

☆ *Saturation mode:* (5) The saturation of the underlying pixels changes to that of the blend color, but the hue and luminosity are maintained.

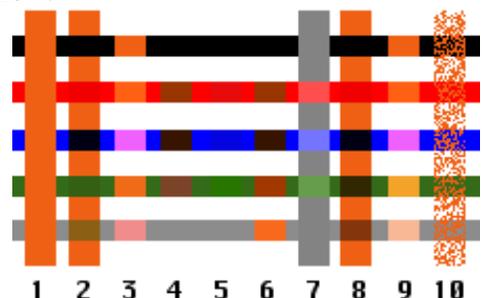
☆ *Color mode:* (6) The underlying base pixels change to the blend color, but the luminosity is retained. This mode is good for coloring grayscale without changing the gray levels.

☆ *Luminosity mode:* (7) The opposite of color mode. The luminosity of the underlying pixels changes to that of the blend color, but the color values are not affected.

☆ *Multiply mode:* (8) Uses a mathematical formula to darken the image.

☆ *Screen mode:* (9) Lightens the base pixels while giving them a tint of the blend color. The opposite of the multiply mode.

☆ *Overlay mode:* Either multiplies or screens depending on the base color. This has the effect of changing the base color to the blend color while maintaining highlights and shadows.



- ☆ *Dissolve mode:* (10) The blend color replaces the base color at random, based on the density (opacity or brush hardness) of the applied paint. The example line is painted at 50% opacity.
- ☆ *Color dodge and Color burn modes:* Using these modes is like dodging or burning with the foreground color.
- ☆ *Soft light and Hard light modes:* Soft light is like a diffused light source while Hard light is focused. Colors more than 50% gray darken the base color while colors under 50% gray lighten it.
- ☆ *Behind mode:* Paints only on the transparent part of a layer. The effect is of painting under the base color.
- ☆ *Clear mode:* Makes pixels in a layer transparent. Works with the line or paintbucket tool, or Fill or Stroke.

## The History Palette

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When Adobe upgraded Photoshop to Version 5.0, graphic artists and designers everywhere rejoiced. Adobe had added the History palette, which allows multiple undos. Before 5.0, you could only reverse your changes back one step.

**State:** When you make a change to your image, it is recorded in the History palette. These are called states. You can make a snapshot of any state to save for later, or you can paint with a state using the History Brush tool. By default, the History palette will save 20 states.

**Snapshot:** Snapshots can be used for several purposes. Let's say that you like something you are experimenting with and want to save it "just in case." Or, you are running out of space in the History palette, but you want to keep a particular version of your image until you are finished.

## Channels

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Channels are similar to layers, in that they contain partial, layered information about an image. An RGB image always has at least three channels; a CMYK has four; a greyscale has one black channel.

- Channels are also used to store and edit selections. **Select... Save Selection** or clicking on the Save Selection button on the bottom of the Channels palette will create a new alpha channel below the color channels in the Channels palette. These alpha channels will be saved with your PSD files and can be exported in PICT and TIFF formats for use in other applications. Bitmapped images cannot have alpha channels.
- ☆ Channels contain only greyscale (256 shades) information about your image.

## The Actions Palette

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- If you've worked in programs that utilize macros (WordPerfect, MS Word or Excel, etc.), you may be familiar with the concept of scripting complex actions into a command you can easily execute with just a click or single keyboard command. Photoshop's Actions palette allows you to do just that. The default settings already have several actions scripted. Actions are made up of steps of commands, and each step may have sub-steps or settings. In Button Mode (in the Actions palette pop-up menu) the steps are hidden, but in List Mode the steps can be expanded and edited. Button Mode also shows the colors and function keys assigned to an action.
- ☆ The first column of the Action list displays a check mark to show that Actions or steps are include and usable. Excluding steps is a convenient way to temporarily alter Actions without rewriting them.
- ☆ The second column toggles break points on or off for an entire Action or single step. Break points within an action pause action to wait for user intervention. This may be to fill in options in a dialog box, make a selection, or supply some other variable. Photoshop will not let you turn on a break point for a step with no options. If a break point is not turned on, the Action will execute without pausing, using the option values recorded.
- The simplest way to create an Action is to actually perform the steps while recording in the Actions palette. Photoshop will alter your image as you do this, so you might want to work on a copy of your file.

☆ You can assign Function keys (F1—F15, Shift F1—F15, Command/Control F1—F15, & Shift + Command/Control F1—F15 across the top of your keyboard (Windows will not use F1 or F13—F15)) to actions for one-keystroke implementation of your favorite commands!

## Paths

Paths can be frustrating to learn, but powerful to use.

The Pen Tool is a Bezier curve drawing device. There are seven pen tools under the Pen tool in the ToolBox. You can create lines and shapes that can be fine-tuned, saved as paths, filled or stroked, and converted to selections. Anchor points are joined by segments, which link to make a subpath. Subpaths combine to form paths.

☆ *Drawing a straight line:* Click in the image window with the pen tool to create an anchor point. Click again elsewhere to create a second point. A line segment will be drawn between the two.

☆ *Drawing a curved line:* Create an anchor point. Click and hold the mouse button down elsewhere. A slightly curved line will form between the two.

☆ The arrow tool is used to move anchor points. The corner tool can be used to change the anchor points from curves to corners to straight lines.

**Work path:** A Work path is a path that has been drawn with the Pen tool but has not been saved. This is your work-in-progress. Work paths must be saved if you want to keep them; otherwise, beginning a new path will delete it.

☆ Save a Work Path from the Paths palette pop-out menu. You can have many saved paths that will remain with your psd image.

☆ Make a saved path into a clipping path. Both TIFF and EPS formats will retain your clipping path as a transparency mask when you place it into a DTP program.

The Stroke Path command will use whatever brush size and tool options have been selected for the particular painting tool you

chose.

**Clipping path:** A Clipping path is a saved path to be used in a vector program (such as Adobe Illustrator, Macromedia FreeHand) or page layout (QuarkXpress, Adobe InDesign). A Clipping path removes the image from its background.

Think of Clipping path in this way: You want to cut out a picture of you and your friends to put in your scrapbook, but you don't like the background. For a non-digital scrapbook, you'd have to take scissors and cut, or clip, away the background before you would be able to glue it in. This is essentially the same idea but in a digital format.

Device pixels are found in the Clipping Path dialog box (Figure 3-13). The Device pixels are the units for flatness, which determines how precise the Clipping path will be. You can enter numbers ranging from 0.2 to 100. The higher the number, the less precise the path will be. The lower the number, the better the precision.

When printing this image, the path is translated as a series of flat lines. The smaller the line, 0.2 device pixels, the better the path will be approximated. You may leave this value blank and Photoshop will apply the default.

## Saving Your Images for the Web

You may create all of your simple web graphics, like buttons, on one file. This helps guarantee consistency in color. Then follow these steps to save your files:

- 1. Flatten your image.** We need to mash all the layers together. Choose Flatten Image from the Layers pop-up menu. Be sure that the background isn't the active layer or that option will be grayed out.
- 2. Select one item.** Choose an icon, a heading, or a bar and select it with the marquee. It doesn't matter if you use the lasso or the marquee tool, as long as you completely select the item you want, and don't select any part of any other item.
- 3. Copy the item and paste it into a new document.** Choose Copy from the Edit menu.

Next, select New from the File menu. Photoshop will suggest a size that exactly fits the image you just copied, so don't change the dimensions. Click OK. Paste your image into the empty space.

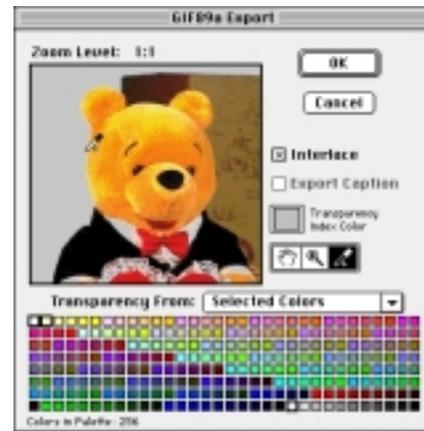
**4. Change the new image to Indexed Color.**

From the **Image... Mode** submenu, choose Indexed Color. When it asks if you want to flatten layers, answer OK. In the next dialog box that appears, select Web palette and None for dither. Notice that the Web-safe palette only has 216 colors. This is to make your GIFs safe for Windows-based browsers. If your intended audience has Macs, or Windows machines with more than 256-color display, you can choose the Adaptive palette. Click OK.

**5. Save your image in GIF format.** Photoshop only saves rectangles, and automatically changes any transparency to white in all formats except Photoshop. If you do not need transparency, go ahead and choose **Save As...** and select Compuserve GIF in the Format

pop-up menu. If you want to preserve transparency, you must use **File... Export... GIF89a Export...** You will get a dialog box that will allow you to choose colors (e.g., white) that you wish to be omitted in the saved image. Name your image something.GIF and click Save. Now you can display it on the web!

**6. Repeat steps 1-5** for each of the images you wish to save for the web.



*Sampling colors for transparency in the GIF89a Export command*

# ~ NOTES ~

