

## Photoshop CS6

Photoshop is a graphics program used to design and edit graphics for both Windows and Macintosh platforms. Photoshop can be used to add special effects to an image, correct color and image flaws, and even remove parts of an image from a background.

Photoshop is a very powerful tool and learning the “magic” of Photoshop takes time, practice, and experimenting with the different tools in order to learn the program. This class will focus on introducing you to the basic overview of the screen and demonstrating different ways to select parts of an image.

### Creating and Opening a Canvas

To create a canvas, choose File, New and select the dimensions for the new canvas.

**Resolution:** 72 pixels/inch is good for on-screen viewing or for web graphics.

200-300 pixels/inch is good for printing images on most printers.

300+ pixels/inch or greater should be used for high quality printers and images, such as a printing press.

**Mode:** The two most common Modes are RGB and CMYK.

RGB (256 Red, 256 Green, 256 Blue = 8bit image, 16.8 million colors, jpeg = 8bit) is used as a default in most cases and is good because it is the standard for monitor color. (Example of 16 bit would be Tiff).

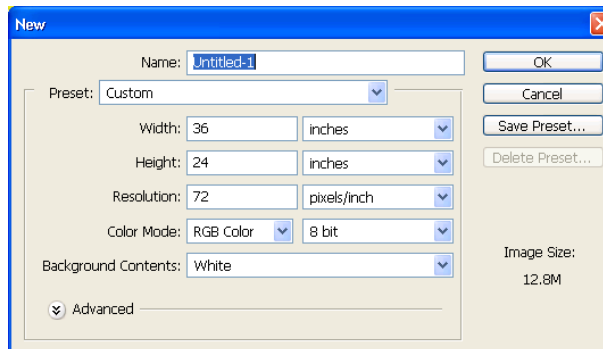
CMYK (Cyan, Magenta, Yellow, and Black) is a standard color mode for color printing.

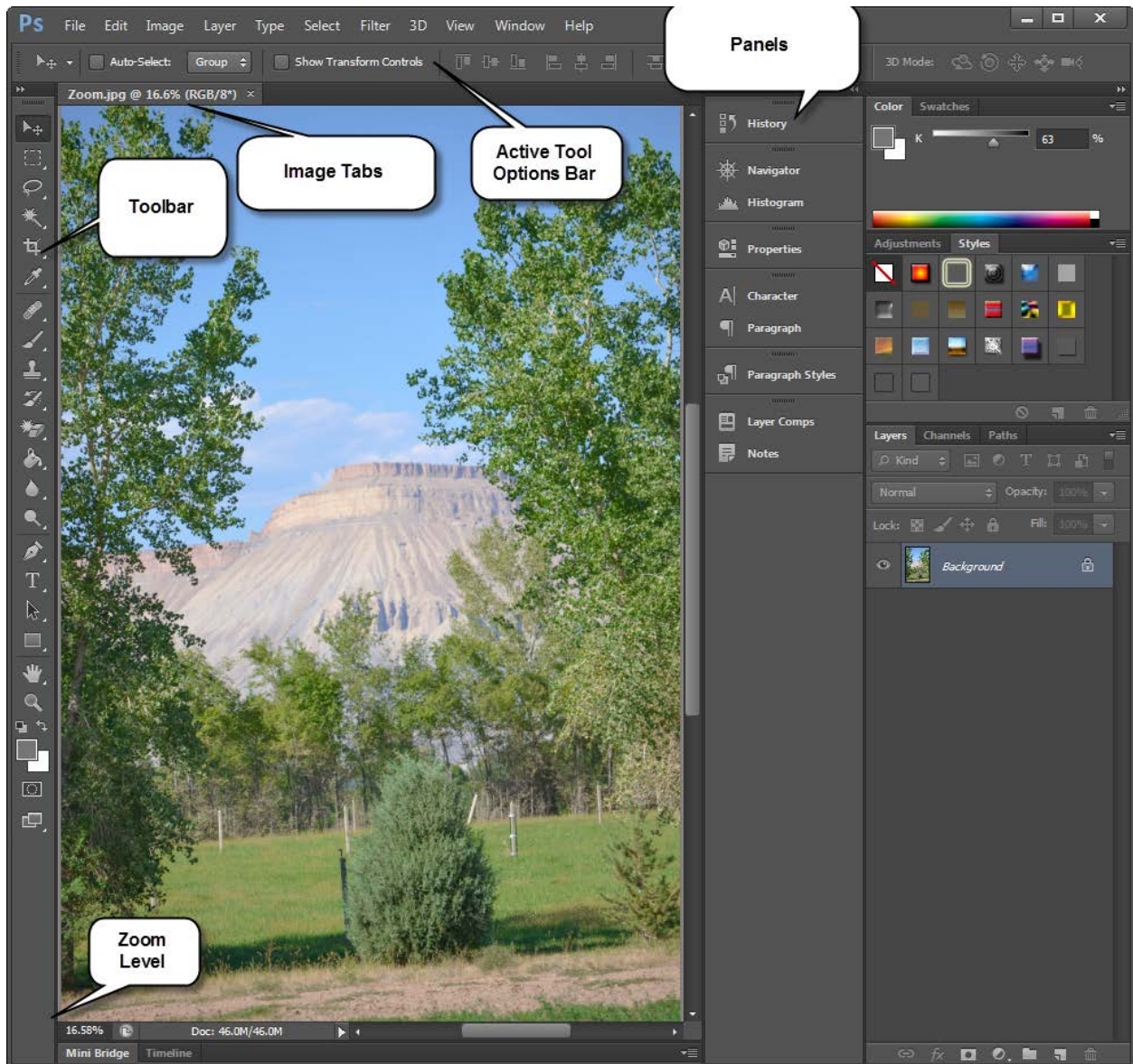
**Background Contents:** Contents is the background color of your document window or canvas. We will be using White as the Content color for most of the class examples.

The Background Color option will fill the document window (or canvas) with the background color selected in the Toolbox.

The Transparent option is mostly used for web graphics

To Open a file, choose File, Open and select the file





## Reviewing the Tools

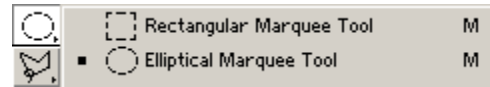
### The Toolbar

The Toolbar contains several different tools that can be used to edit or create images. Position the mouse cursor anywhere on the tool icon in the Toolbox and a yellow tool tip will appear displaying the name of the tool.

- To toggle the toolbox off and on choose Window, Tools
- To move the toolbox click with the mouse in the Title bar of the toolbox and drag it to a new location.

## Selecting a Tool

Select a tool by clicking with the mouse on the tool icon in the Toolbox. A small triangle in the bottom right corner of the tool icon indicates additional options or *Hidden* tools that can be chosen.



Click with the mouse on a tool icon from the fly-out menu to select the tool. The shortcut key for the tool is displayed on the right-hand side of the tool. Press the shortcut key at any time while working in Photoshop to switch to the tool tied to the shortcut key pressed. Press the Shift key + the shortcut key to switch between the tools in the hidden or fly out menu.

## Options Bar



The Options Bar is located at the top of Photoshop screen below the Menu Bar. The fields in the Options Bar are context sensitive meaning that when a tool is selected from the toolbox the Options Bar will change to reflect options for the selected tool.

## Saving a Photoshop File

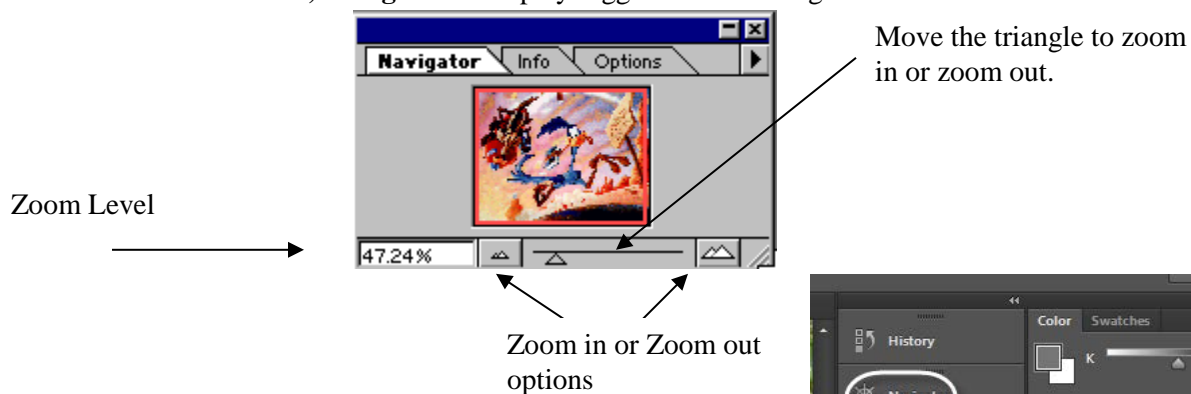
- To save a Photoshop file and preserve all layers, choose File, Save As, name the file, leave the .psd file extension and navigate to the drive and folder for storage.
- To save a file in a file format that is something other than .psd choose File, Save As and select the Format option from the file type and choose Save.

Note: It is always a good idea to save a copy of the original image before you edit it by choosing File, Save As, and select the Copy from the Save Options.

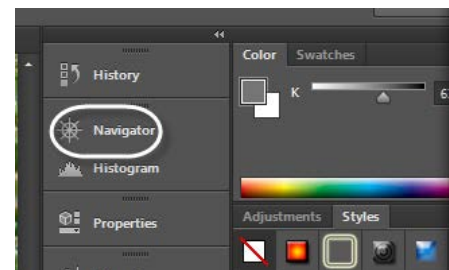
## Navigator Palette

The Navigator Palette is used to zoom in/out of a particular area of an image.

- Choose **Window, Navigator** to display/toggle off the Navigator Palette



**Tip:** The Navigator can also be displayed by clicking on the Navigator icon in the Panels to the right of the image.



## Customizing and Saving Your Workspace

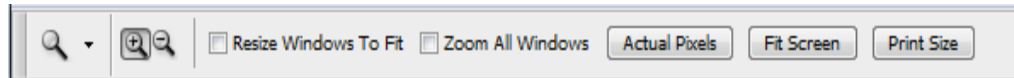
Do you change your preferences when working with certain types of images? Do you like to save your palettes in a certain location while working with specific images types? With Photoshop, you can now save preferences and palette locations as a workspace.

To save a workspace, choose Window, Workspace, New Workspace and type a name for the workspace being saved.

To load a workspace, choose Window, Workspace, and select one of the workspaces listed in the menu.

To delete a workspace, choose Window, Workspace, Delete Workspace and select a name from the menu

### Zoom Tool



The Zoom tool is used to magnify and/or reduce a particular area of an image while editing. The percentage of the zoom level will display in the title bar of the image, the status bar of Photoshop and the Navigator Palette. To access the Zoom tool, click on the Magnification glass on the left side of the Photoshop window, on the Tools palette.

- The maximum zoom level is 3200%.
- Resize Windows To Fit option, when selected, will resize your window as you zoom in and out of an image. When this option is not turned on, the window size will not change when zooming in/out of the image.
- Ignore Palettes options, when turned on with the Resize Windows To Fit Options, will resize the image so that part of the image may be hidden behind the floating palettes.
- Actual Pixels will change the zoom magnification to 100%.
- Fit On Screen will resize your image to a window size that will not require scroll bars.
- Print Size will provide a preview of the image based on its print size/resolution (Image, Image Size).



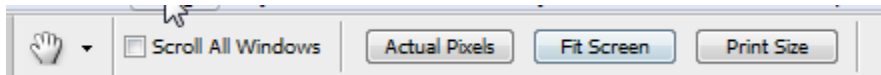
## Different Ways to Use the Zoom Tool on Your Own

- Zoom In on an image by selecting the Zoom tool from the toolbox and clicking on the image. Each click with the mouse will zoom in to the next preset zoom percentage.
- Select the Zoom In tool from the View Menu and the image will zoom in to the next preset zoom percentage.
- Access the shortcut key for Zoom In by pressing Ctrl and the + (plus) key.
- Users can switch to the Zoom tool while using any other tool in Photoshop by pressing and holding the Ctrl + Spacebar and at the same time clicking on the area of the image to be zoomed in.
- Zoom In or Zoom Out of an image by typing the zoom percentage in the Navigator Palette or the Status Bar.
- Reset the Zoom Level to 100% by double clicking with the mouse on the Zoom Tool in the toolbox.
- Reduce the zoom level one level at a time by selecting the Zoom Out from the View Menu.
- Reduce the zoom level by using the shortcut keys Ctrl and the – (minus) key. Press and hold the Ctrl key while pressing the – (minus) key repeatedly until you are at the preferred zoom level.
- Reduce the zoom level by selecting the Zoom tool from the toolbox and pressing the Alt key while clicking with the mouse on the image.

## Navigating Around the Different Magnifications.

- Use the Scroll Bars on the image window.
- Navigate around the image by selecting the Hand tool from the toolbox and left-click with the mouse while dragging the Hand tool over the image.

## Hand Tool

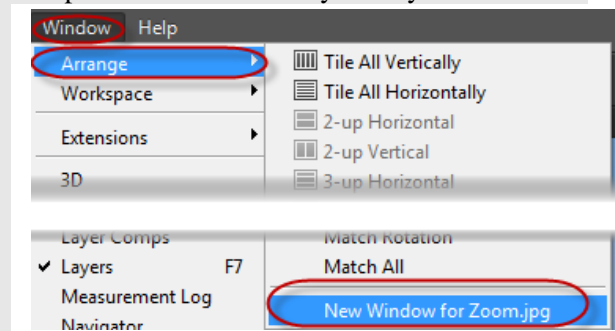


The Hand Tools is used for panning around on your images. The Hand tool really only works when you're zoomed in on your image.

**Tip:** Switch to the Hand tool while using any other tool by pressing down on the Spacebar.

## 2-up Display

In Photoshop CS6, all images that you open have their own separate tabs. At times you may want to look at the same image at different magnifications while editing it. You can open the same image in multiple windows and whatever changes you make in one window will apply to all windows open for that one particular image. You will have to open the same image in a new tab, to do this, go to the Window menu, select Arrange, and then New Window for... This will open up a second tab. Now to have both tabs next to each other, go to Window, Arrange, and select an option such as 2-up Vertical.




To go back to the tabs again, click on the Window Menu, Arrange, Consolidate All to Tabs.

## Paint Tools

### Selecting Foreground and Background Colors



The Foreground and Background color chips are located in the  toolbox. The Foreground color chip is used to paint, fill selections, and stroke (add a border) areas of an image. The background color chip is used to make gradient colors and at times used as the background color when using the erase to background tool.

**Tip:** Some filters use foreground and background colors.

### Foreground Color

The Foreground Color tool determines which color is used while using the paint tools. Change the Foreground Color by clicking the Foreground Color icon to display the Standard Color Picker dialog box. From the Standard Color Picker dialog box click on a color with the mouse pointer and choose OK.

### Background Color

The Background color tool is used when erasing the background of the image or when you increase the size of the canvas by choosing Image, Canvas Size.




### Color Picker Dialog Box


When viewing the Color Picker dialog Box the colors available to select from are located in the large square on the left side. Use the Vertical Gradient that is located in the middle of the dialog box to select the general color you want to use. The two color swatches located to the right of the Vertical Gradient display the selected color in top color swatch and the color previously chosen in the lower color swatch.

### **BEWARE** of Out-of-Gamut and Non-Web-Safe Colors

#### Out-of-Gamut

The out-of-gamut warning, a small triangle appearing to the right of the color swatches in the dialog box, signal that the color chosen is not reproducible in CMYK mode, which means it cannot be printed without shifting to a different color. Photoshop provides a sample of the color it will shift to in a square directly below the out-of-gamut warning triangle. Click on the small square to select the color or with the dialog box open have Photoshop display how the colors will look when printed by choosing View, Proof Colors.

 Swap the Foreground and Background colors by clicking the small curved doubled edged arrow located in the top-right corner of the Foreground and Background Color Control Box.

 Reset the Foreground and Background colors to their default color of black and white by clicking on the small icon located in the lower-left corner of the Foreground and Background Color Control Box.



## Using Brushes

The brushes in Photoshop aren't only used for painting. The brushes can be used for drawing and selecting as well. The Airbrush, paintbrush, pencil, line tool and eraser can all be used for drawing.

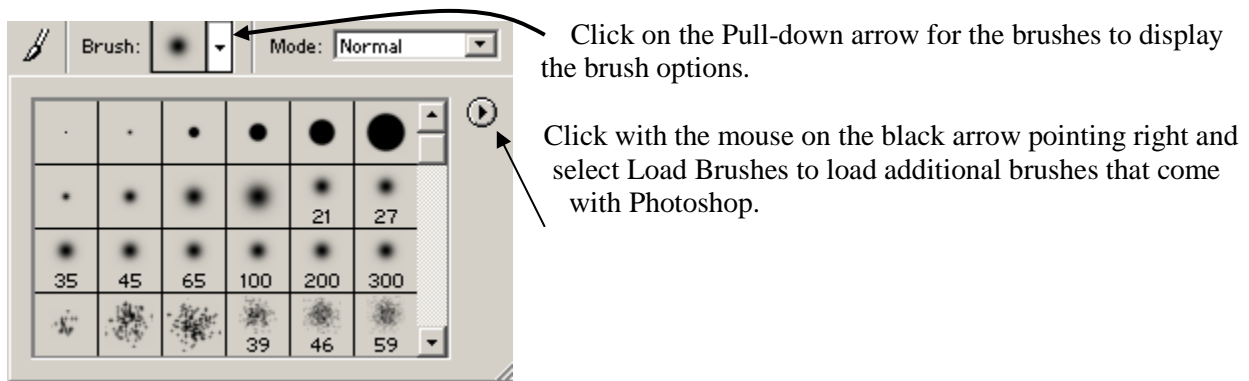
Available options for brushes include changes in the opacity, pressure, blend mode and some have fade and wet edges as available options.

**Opacity:** Opacity works on a scale of 0-100%. A setting of 100% Opacity will cover everything you paint and you will not be able to see beneath the paint. Anything less than 100% Opacity will allow visibility beneath the painting depending on the Opacity setting.

**Blending Mode:** There are several Blending Modes available to use when painting on an image. For this class, we will be using the Normal Mode. Normal Mode provides the same effect as when you paint on paper or a canvas.

Photoshop has preset brush sizes to select from while painting or drawing. Select the tool from the toolbox and choose a brush size and type from the Options Bar.

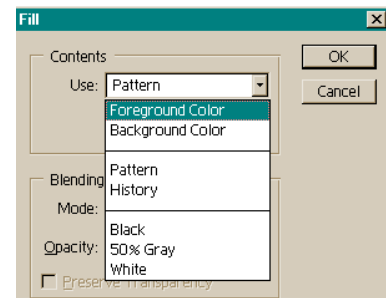
The Brushes Palette is now located in the Options Bar.



**Tip:** The Define Brush tool is now located under the **Edit Menu**. Use the **Rectangular Marquee** tool to make a selection and then choose **Edit, Define Brush**.

## Using the Fill Tool

One of several ways to use the **Fill** tool is to select it from the **Edit Menu**. Start by creating a selection on the canvas. Next, choose **Edit, Fill** and choose an option from the **Contents** area of the **Fill dialog box**. Photoshop will use the color in the Foreground and Background color chips when selecting Foreground or Background color from the Fill Dialog box.



**Extra:** Create a pattern and use it as a fill. Use the **Rectangular Marquee tool** to select a color or pattern you like on a canvas. Next, choose **Edit, Define as Pattern** and assign a name for the pattern. The Pattern you make will now be available to use from the Fill dialog box.

## Paint Bucket


**Tip:** Photoshop grouped the Paint Bucket with the Gradient Tool.



The **Paint Bucket** tool is used to fill selected areas or an entire canvas with a fill color.

- Select the Paint Bucket tool from the toolbox.
- Click in the area where you want to use the fill color.
- Whatever color is displayed in the Foreground color box will be used to fill the selected area.
- To change the Fill Color click with the mouse on the Foreground Color icon in the toolbox and select a different color from the color picker dialog box. Choose **OK** when finished. To apply the Fill Color select the Paint Bucket from the toolbox and the Foreground Color will be applied to the selected area.

## Painting With Gradients

Give your image a different look by  applying a gradient style. Gradients can be applied to selections or to an entire layer. Select the Gradient tool from the toolbox and then select the gradient style from the Options Bar.



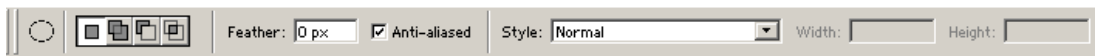
1.

- Select a color scheme for the gradient. There are two ways to select gradient colors:
  1. From the Option Bar select a preset color combination under the Gradient Picker.
  2. From the toolbox select a Foreground and Background color from the color picker.
- After the gradient style and gradient colors have been selected, position the cursor inside the image and left-click and drag across the image or canvas.

## Creating Selections

Selecting an area of an image allows you to isolate an area of an image that you want to work with. A dotted selection border, also called a selection marquee, indicates a selected area on an image. The area outside the selection border is protected while you move, copy, paint, or apply special effects to the isolated area.

When using the Selection tools use the Options Bar (new to Photoshop 6.0) to add, remove and intersect selections of an image. The new Options Bar also has the Feathering tool readily available along with the anti-alias and Style Menu.





## Marquee Tool

The Marquee tool is located in the upper right-hand corner of the toolbox.



A Marquee is a selection. Use the Rectangular Marquee tool to make a rectangular or square selection of an image. Hold the **Shift** key down while using the Rectangular Marquee tool to draw a square selection.

**Tip:** Hold the **Alt** key down while drawing a Rectangular or Elliptical selection and the selection process will start in the center and move outwards.

Use the Marquee tool by left-clicking with mouse on the canvas and dragging from one point on out and releasing the mouse when finished to close and display the selection.

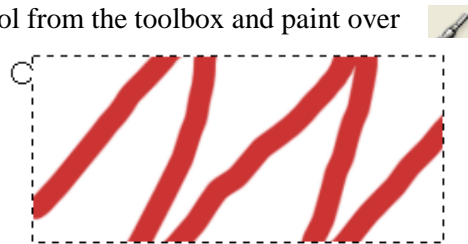
The marquee selection, the marching ants on the canvas, is a selection of pixels on the canvas. As long as the selection is still active on the canvas, where you see the “marching ants”, it can be moved. Start by placing the mouse cursor inside the selection and left-clicking with the mouse and dragging the selection to a different area on the canvas.

A selection can also be moved while actually drawing the selection. Start by drawing an incomplete or partial selection. Next, hold down the space bar while still using the Marquee tool, meaning the left-mouse button is still pressed down to make sure the Marquee tool is still in the “on” position, and drag your selection to a different area on the canvas and release the space bar when finished moving the selection, and continue to draw the selection. Release the left-mouse button to close or turn off and/or display the selection.

## Testing the behavior of a selection

Any selected area on the canvas can be “affected”, meaning any modification applied to the image will only apply to the selected area of the image.

To test the behavior of the selection, select the Paintbrush tool from the toolbox and paint over and around the selected area of the canvas. Notice that the paintbrush will only paint in the selected area of the canvas.

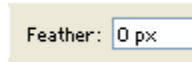


## Make an Object from a selection

Start by drawing a selection on the canvas using the Marquee tool. Fill the selection with a Foreground color by choosing Edit, Fill, select Fill with Foreground Color, and press Ok.

Deselect the object by using the menu Select and choosing the Deselect option. The shortcut key to deselect is Ctrl+D for Windows.

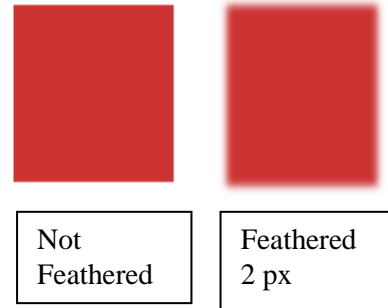
## Feather Option



The Feather field option is located in the Options toolbar. Using the Feather option will blur or soften the edge of the selection. The Feather option has a range between 0 and 250 pixels. A setting of 0 would apply no feathering.

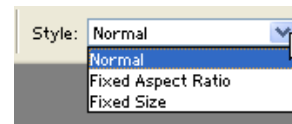
The Feather field options must be set prior to making a selection. Click with the mouse in the Feather field on the Options bar and insert the number of pixels to feather.

The feathering will apply to the border on out and to the border in towards the center of the image. Example, if the Feather field were set to 2px, then the border would blur or soften two pixels out from the border and two pixels in from the border.



## Defining the Marquee Styles

Remember to specify a selection Style prior to making the actual selection. The different Styles are listed below:



**Normal:** Click and drag to make a normal selection.

**Fixed Ratio:** Use the Fixed Ratio to set a height-to-width ratio. Enter values (decimal values are valid) for the aspect ratio. For example, to draw a marquee twice as wide as it is high, enter 2 for the width and 1 for the height.

**Fixed Size:** The width and height selection are set and defined in pixels. Just click on the image and an area will be selected according to the fixed size.

## Elliptical Marquee Tool

The Marquee tool is located in the upper right-hand corner of the toolbox and is hidden behind the Rectangular Marquee tool.

The Elliptical marquee tool works similar to the Rectangular marquee tool except that it makes a circular selection rather than a rectangular or square selection. Hold the **Shift** key down while making the selection and the selection will be a perfect circle.

## Anti-aliased

When using the Elliptical Marquee tool, you will have an option to Anti-Alias a selection. When making a selection using the Anti-aliased option, the edge of the selection will be smooth and soft. When making a selection with the Anti-aliased tool turned off, then the outer edge of the selection will be jagged, not smooth.

**Tip:** The option to have anti-aliased doesn't exist on the Rectangular Marquee tool because the selection always lands on a pixel so you won't have that soft edge going, but instead, an edge with a hard pixel all the way around the selection.

### Test the difference between Alias and Anti-aliased

Make a selection using the Elliptical Marquee tool and be sure the Anti-alias option is selected in the Options Bar.



Fill the selection by choosing Edit, Fill, and select the Use Foreground color option.

Draw a second selection by first deselecting the Anti-aliased option in the tool bar. Next, fill the selection by choosing Edit, Fill, use Foreground color.

**Notice the difference.**



Anti-Aliased  
Smooth Edge

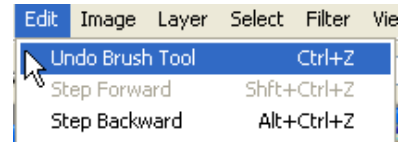


Alias  
Jagged Edge

## Using the History

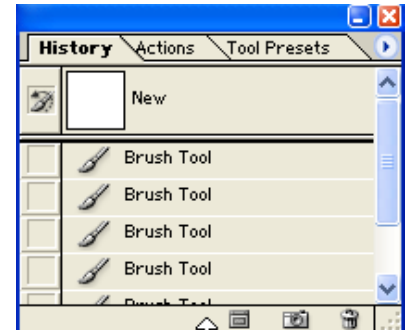
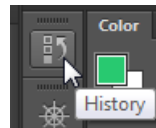
### Undo/Redo

The Undo and Redo feature is located in the Edit Menu. The Undo tool will undo that last command applied to your image. The Redo feature will reapply a command that you just removed. The shortcut key for Undo/Redo is Ctrl + Z.



### History Palette

The History Palette keeps track and records every command or state that you apply to an image. The History Palette will allow you to Step Backward or Step Forward to remove or reapply commands. From the History Palette, Step Forward or Step Backward by clicking with the mouse on an available state in the History Palette.

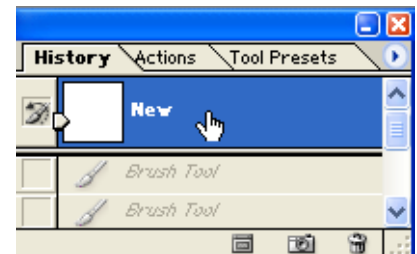


The Edit Menu also displays the Step Backward and Step Forward command which is equivalent to the Undo/Redo, but is tied directly to the History Palette.

The number of states recorded in the History Palette is set up in the Preferences. The Preferences is located under the Edit menu. The default setting for the number of History States is 20.

### History Snapshot

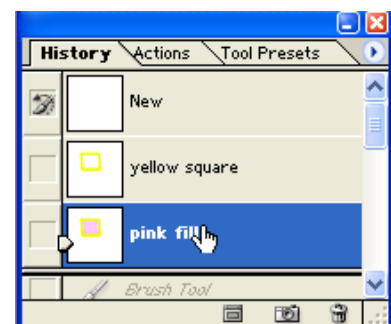
A snapshot is available automatically when an image is opened or created. A snapshot is a stored “point in time” or “picture” of your image and available to switch to at any time while the image is being edited. Numerous snapshots can be taken and used while the image is open. Once the image is closed, the snapshot(s) will be removed and not stored with the image.



The snapshot is located in the History Palette at the top level referenced with either the name of “New” for a newly created canvas or with the actual file name if an existing image has been opened.

### Creating a New Snapshot

A new snapshot can be created at any given state while working on an image in Photoshop. Select the Camera icon at the bottom of the History Palette to take a snapshot of your image. Photoshop will prompt you for a snapshot name. All snapshots taken will be displayed at the top of the History Palette. Select a snapshot from the History Palette to switch to that particular snapshot.



## Lasso Tools



Use the lasso tools to create freeform selections.

**Tip:** Press the Shift+L shortcut keys to switch between all the available Lasso tools in the Lasso fly-out menu.

### Lasso Tool



Use the Lasso tool to draw freehand around a portion of the image you want to select. Left-click the mouse and trace the area of the image you want to select.

### Polygon Lasso Tool



The Polygon Lasso tool is similar to the Lasso tool where it lets you make a freehand selection of the image. However, the Polygon Lasso tool has an added feature where you can click on different points in your image to set corners. Setting corners while making selections is sometimes easier than trying to drag the mouse around multiple corners.

### Magnetic Lasso Tool



Click once to set the start point of the Magnetic Lasso tool and move the mouse along the edge of the image that you want to select. No need to click and drag – just move the mouse. Double-click the mouse on starting point to close the selection.

**Tip:** The Feathering options do not reset when making new selections.

### Magic Wand Tool



The Magic Wand tool selects pixels based on the color of the pixel selected. The Magic Wand tolerance has a tolerance setting between 0 and 255.

A tolerance of 0 would select pixels next to the pixel selected and identical in color. A tolerance of 255 would be the similar to a Select All.

If trying to select a color in a specific area, then select the Contiguous option to restrict your color selection in that specific area where the pixels are touching. Having the Contiguous option turned off will select the color where ever it appears in the image.

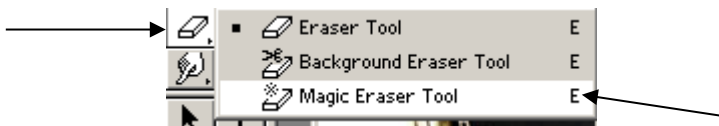
**Tip:** Add to a selection by pressing the Shift key and clicking with the mouse in another area of the image that you want to add to the first selection.

## Magic Eraser Tool

The Magic Eraser tool is a great tool to use when trying to remove the background from an image. The Magic Eraser tool erases by a color tolerance. The lower the tolerance, the more precise the eraser seems to be when erasing. If erasing on a layer, then the Magic Eraser tool will erase to the background color. If erasing on the background layer, then the Magic Eraser tool will erase to transparency.

Removing the Background of an image using the Magic Eraser Tool

- Select the Magic Eraser tool from the toolbox. This tool will be used to erase the white background on the Clock layer.



- Select the layer from the Layers Palette that will be modified.
- In this class example, the Clock layer with its white background is sitting on a transparent or checkered background.

### Set the Tolerance for the Magic Eraser tool

- Too low of a tolerance will leave a little bit of white around the clock.
  - Select 10 as the tolerance.
  - Notice the image.
  - Use the History Palette and remove the tolerance setting.
- Too high of a tolerance will remove part of the clock.
  - Select 50 as the tolerance.
  - Notice the image.
  - Use the History Palette and remove the tolerance setting.
- **Set the Tolerance at 20.**
- The area around the clock is now transparent.



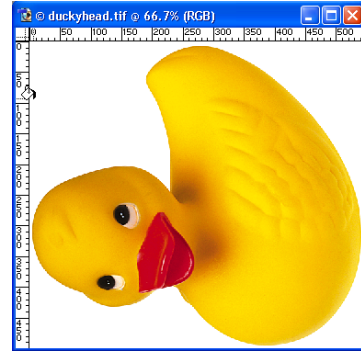
## Adjusting the Image

### Rotating a Canvas

A canvas can be rotated 90 degrees Clockwise, 90 degrees Counter Clockwise, or rotated 180 degrees. From the Image Menu, select Rotate Canvas, and select the rotating option.

### Flipping a Canvas

A canvas can be flipped vertically or horizontally in Photoshop. If an image was scanned in from a negative upside down, then use the flip tool in Photoshop to correct the image. The flip tools are located under the Image, Rotate Canvas menu.



### Crop Tool



The basic concept of the Crop tool is to remove an unwanted part of an image. Start the cropping process by first selecting the Crop Tool from the toolbox and then left-click with the mouse and draw a box around the portion of the image you want to keep. Release the mouse when finished. You should see “marching ants” around the portion of the image you want to keep.

**Tip:** Press the ESC key to remove the crop selection or select the Cancel Crop icon in the Options Bar.



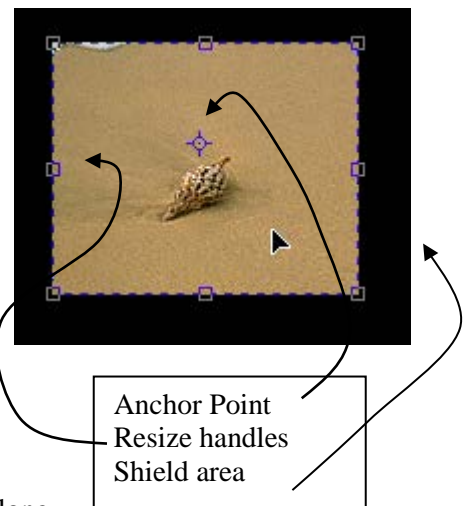
Once you have a crop selection, the background or area around the “marching” ants should be shielded. The default color for the shielded area is black. However, you can change the opacity of the shielded area using the opacity settings in the Options Toolbar. Also note that the “shield” can be toggled off by deselecting it from the Options Toolbar.

### Resizing the Crop Selection

A crop selection can be resized at any time as long as the crop selection is active. Position the cursor on any one of the resize handles and left-click with the mouse and drag in or out to resize the crop selection. Selecting a corner resize handle will resize the width and height at the same time.

### Rotating the Crop Selection

As long as the crop selection is active it can also be rotated without selecting additional tools. Position the cursor outside the “marching ants” area of the selection, the cursor will change to a curved double arrow, left-click with the mouse and rotate the image.



**Tip:** inside the crop selection, in the middle, is an “anchor point”. As long as the anchor point remains in the middle, the selection can only be rotated around that anchor point. The anchor point can be picked up and moved to a new location, drag and drop with the mouse, and the rotation will center around the new positioning of the anchor point.

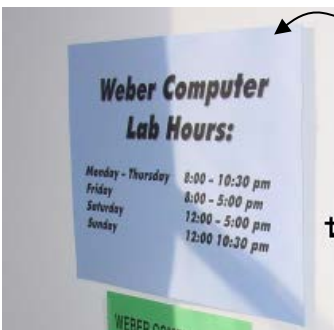
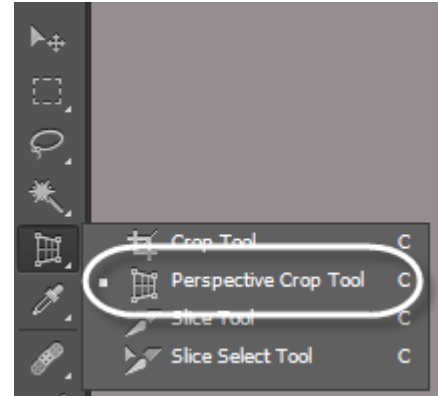
## Completing the Crop Process

Once the crop selection is complete, select the green check mark in the Options toolbar or double-click with the mouse inside the crop selection box to finalize the cropped area.

## Perspective Cropping

If you need a flat, head-on perspective of an image, then use the Perspective option when using the Crop tool. Start by selecting the Crop tool and making a selection around the part of the image that you want to change the perspective. Next, select the Perspective option in the Options toolbar.

Once the Perspective option is turned on, then you can select one corner at a time, a resize handle, located on the crop selection and reposition the angle of the crop by left-clicking with the mouse and dragging the angle to its new destination. Once the new crop selection is complete, press Enter, select the green Check Mark in the Options Bar, or Double-click with the mouse inside the crop selection.



Picture with an angle

Picture cropped using the Perspective option.

