

Adobe Photoshop

1. Introduction

What is Adobe Photoshop?

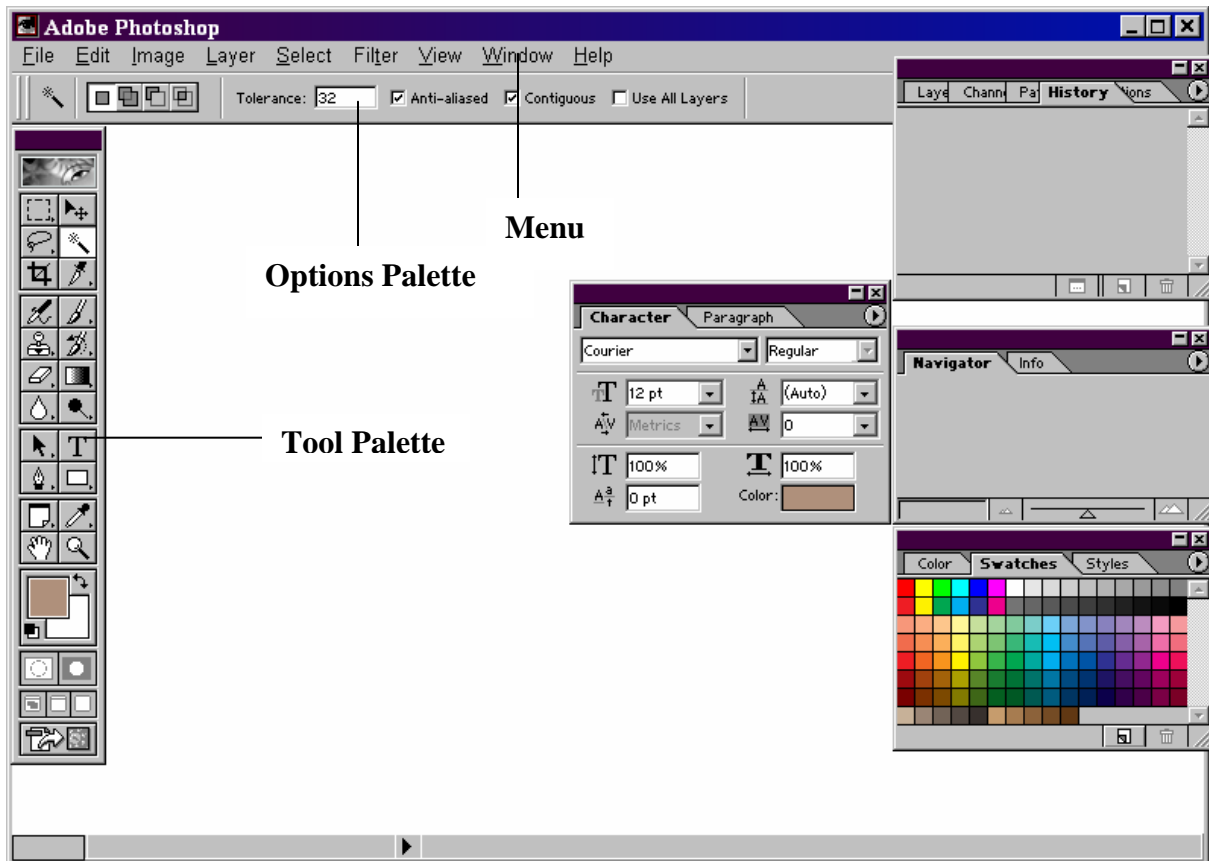
Adobe Photoshop is a web designing software used for giving effects and filters to an image to make it more appealing and attractive. Brought out by Adobe Systems Incorporated, this software is often used in multimedia and web designing.

Why do we use Adobe Photoshop?

Adobe Photoshop is mainly used for inserting special effects, filters and layer effects (layer style). Changing the color, brightness and contrast of the image accompanied by transform and feather commands help in giving the image a different look depending upon the taste of the user.

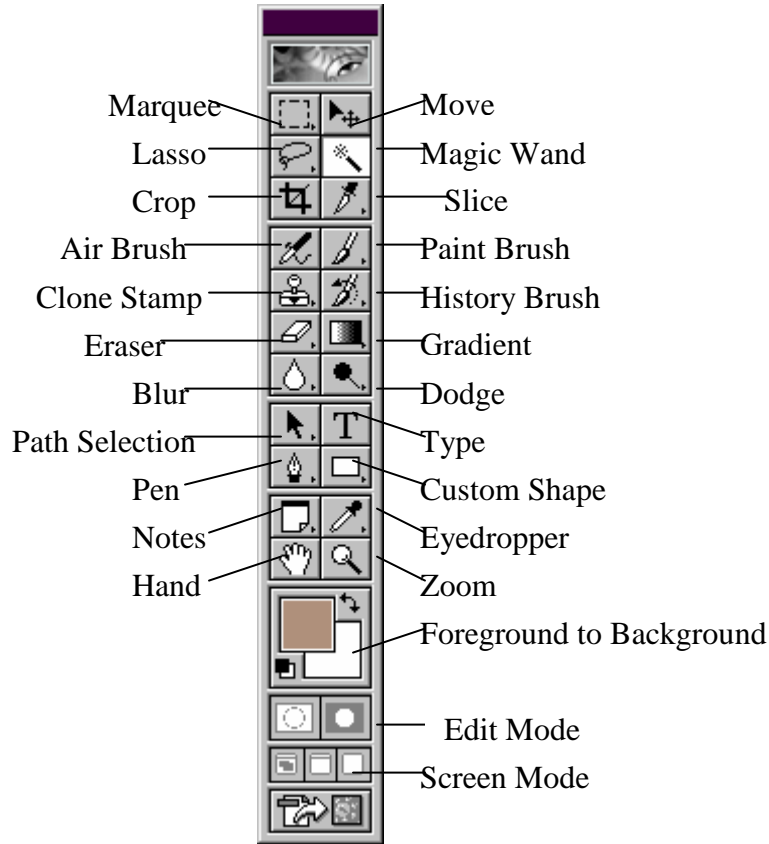
How do we use Adobe Photoshop?

Adobe Photoshop is provided with a set of Palettes and Menus which guides the user in modifying the image according to the options chosen by him.

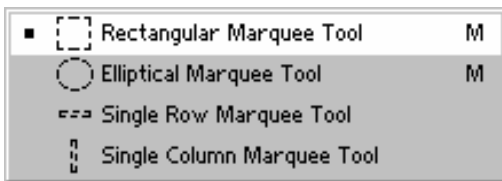


2. Tools Palette

The tool palette appears on the left side of the screen and include the tools that are used to type, select, paint, draw, edit, move, and view images, change foreground/background colors and work in different modes.



Marquee –

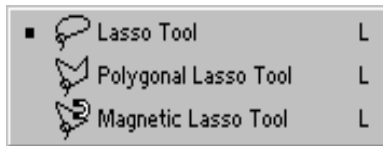


Make rectangular, elliptical, single row, and single column selections. Filters, fill, cut or copy techniques etc. can be used with them.

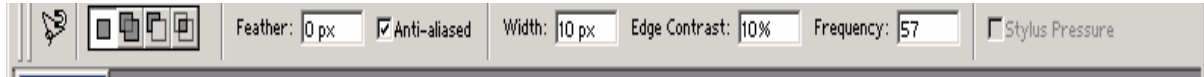


Move -Moves selections, layers, and guides.

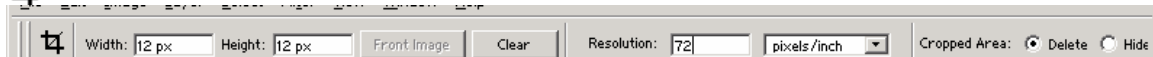


Lasso-

Makes freehand, polygonal, and magnetic selections.

**Magic wand-**

Selects similar color areas. Press Shift to make multiple selections.

Crop-

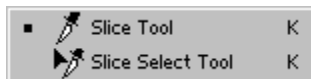
Doubleclick inside the selection made. Discards the remaining area.

Slice-

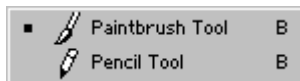
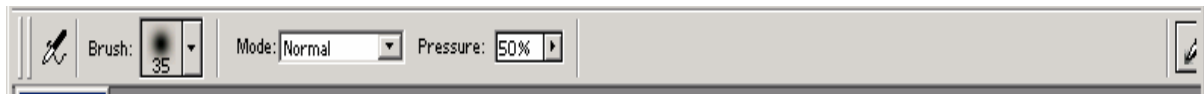
Creates slices of the image or selection.

Slice Select- Selects slices.

➤ Slice Options provides the options to create link to a URL, the message to be displayed wherever that sliced image is used etc.

**Airbrush-**

Paints soft-edged strokes.



Paintbrush- Paints brush strokes.



Pencil- Paints hard-edged strokes.

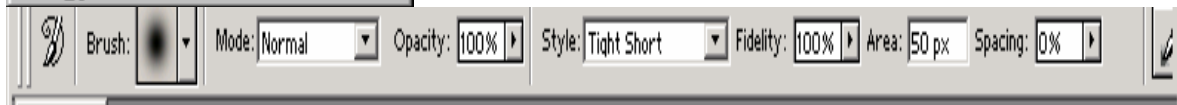
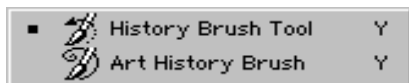
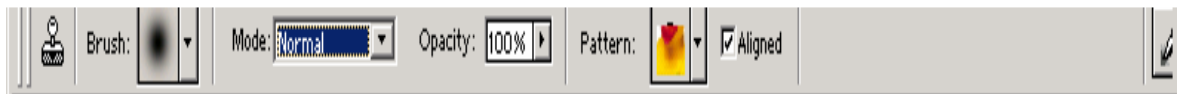


**Clone Stamp-**

Press Alt and drag the tool on the image. Leave Alt and drag the tool again on the image/other image to create a sample of the image.

**Pattern stamp-**

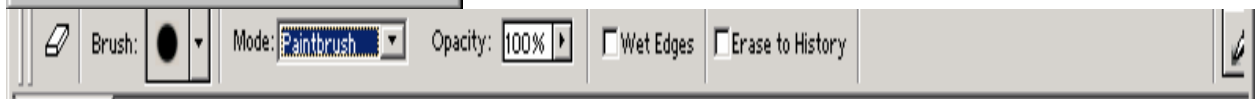
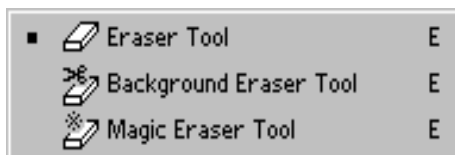
Select a part of the image with rectangular marquee. Edit- Define Pattern. Select-Deselect. Drag the Pattern stamp tool on the image/other image. It paints with part of an image as a pattern.



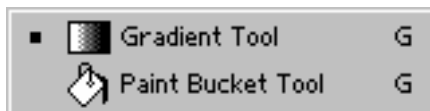
History brush-Erases any effects made on the image or selection.

Art History brush-

Gives a watery effect to the image.

Eraser-

Erases pixels to transparency. If the layer is locked then, erases pixels to background color.

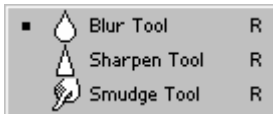
**Gradient-**

Creates straight-line, radial, angle, reflected and diamond blends between colors. Drag the tool on the image or selection to see the effect.

- To create gradient patterns in other/multiple colors and choose Click to Edit gradient option.

Paintbucket-

Fills foreground/pattern color on the image or selection.

**Blur-**

Blurs hard edges in an image.

Sharpen-

Sharpens the edges of the image pixels.

Smudge-

Smudges edges of an image/selection.

**Dodge-**

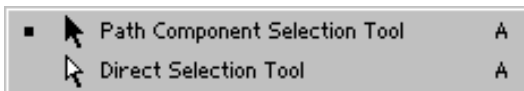
Lightens areas of an image/selection.

Burn-

Darkens areas of an image/selection.

Sponge-

Changes the color saturation or contrast of the image.

Path Tools-

Create a path using Pen Tool.

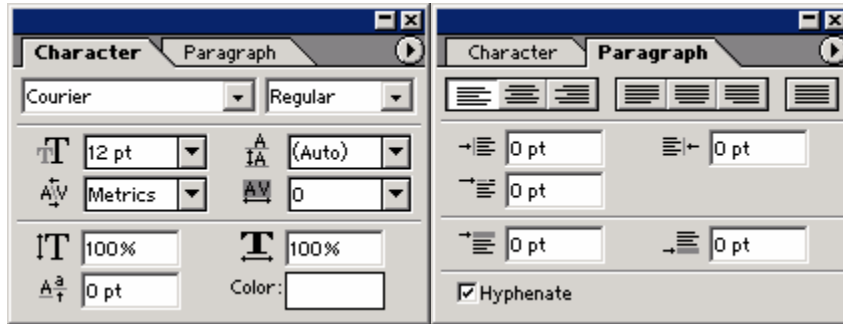
- Path Component Selection Tool is used for dragging the path.
- Direct Selection Tool is used for dragging the anchor points of the path to reshape the path.

Type-

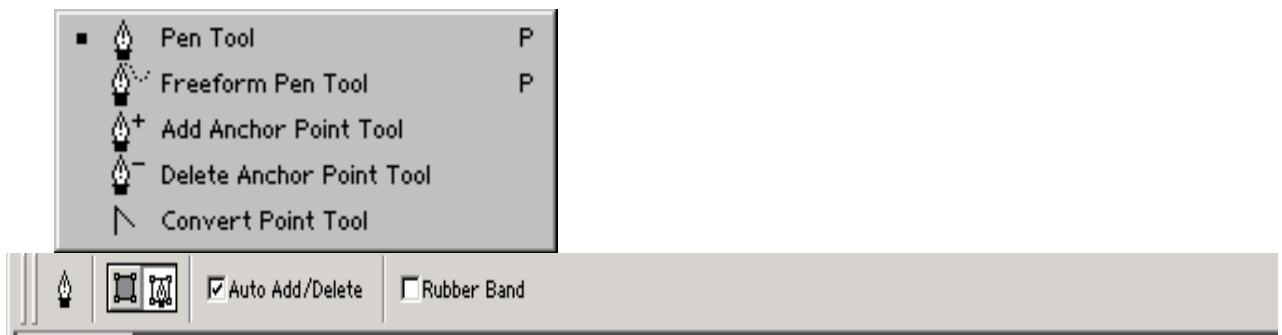
Creates text on an image.

- Creates a text layer horizontally or vertically.
- Creates a mask or selection horizontally or vertically.

The text can be edited by using the Character and Paragraph Palettes using Window*.



Pen Tool-

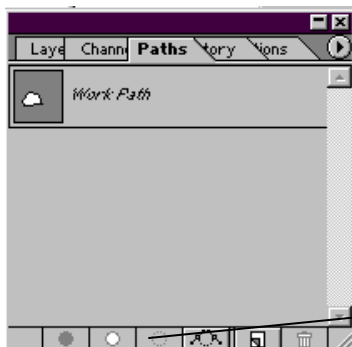


Used for creating path.

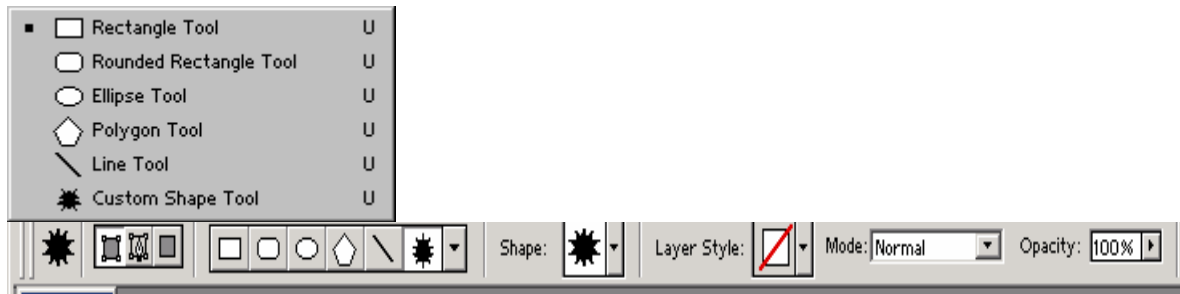
- Freeform Pen Tool- To create freehand path.
 - Magnetic-Checking this option will allow path to be created on similar lines as magnetic lasso tool.
- Add Anchor point- To add anchor points to the path.
- Delete Anchor Point- To delete anchor points of the path.
- Convert Point – To make curved path by dragging the corner points.

The last three tools are used only after creating path with pen or freeform pen or magnetic pen tool.

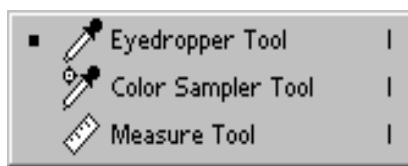
- Draw smooth-edged paths. Go to Window- Show Paths. Click the 3rd button (Loads Path as selection). Click the empty area above that button to display the selection.



Loads Path as selection

Custom shape-

Makes customized shapes selected from a custom shape list like rectangle, custom, round rectangle etc. Foreground color is used for the fill.

Eyedropper-

Samples color in an image. Foreground color shows the color sampled through this tool which can be inserted elsewhere using Paint bucket tool.

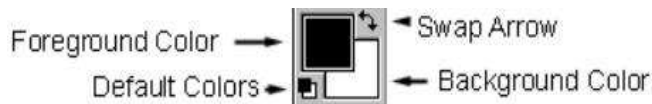
Measure tool measures distances, locations, and angles.

Hand- 

Moves an image within its window.

Zoom- 

Magnifies and reduces the view of an image.

Switch foreground and background colors

By default-black to white. Rotate arrow allows switching between foreground and background. Clicking any one of the color boxes allows change in colors.

Edit in Standard Mode- 

The effects, filters and any other change are made on the image in Standard Mode.

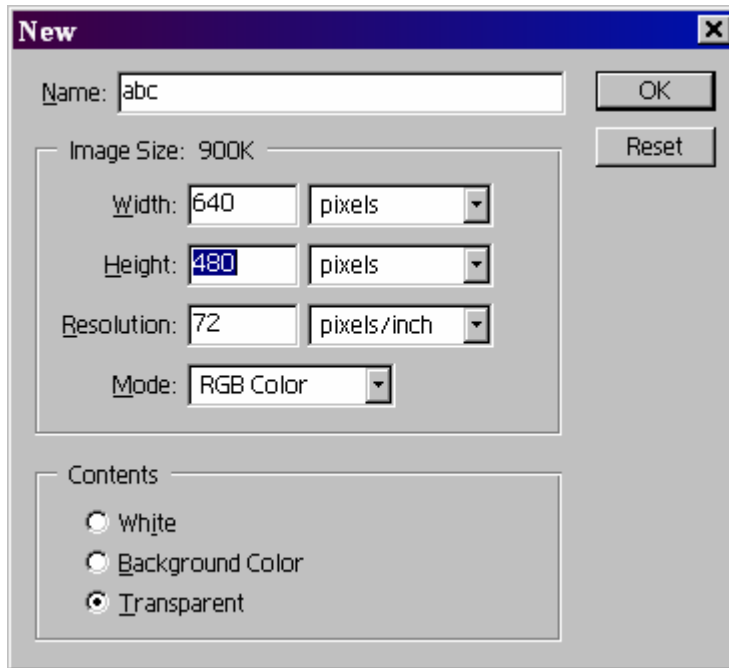
Edit in Quick Mask Mode:

- Open image 1.
- Select-All.
- Edit-Copy.
- File-Close.
- Open Image 2 and select Quick Mask Mode.
- Insert paint bucket or Gradient. Paste Image 1.
- Select Standard mode to reveal the mask created.

3. Creating and saving the images

How to create new image files?

Choose File-New



Standard image size- 640 X 480 pixels.

Resolution- 72 pixels/inch

Mode- RGB

Contents- Transparent for gif files

For JPG files- any option can be selected.

How to open the existing files and in which file format?

Choose File-

Open-

To open any photoshop file.

Open As-

To open any image file in a particular file format.

Open Recent-

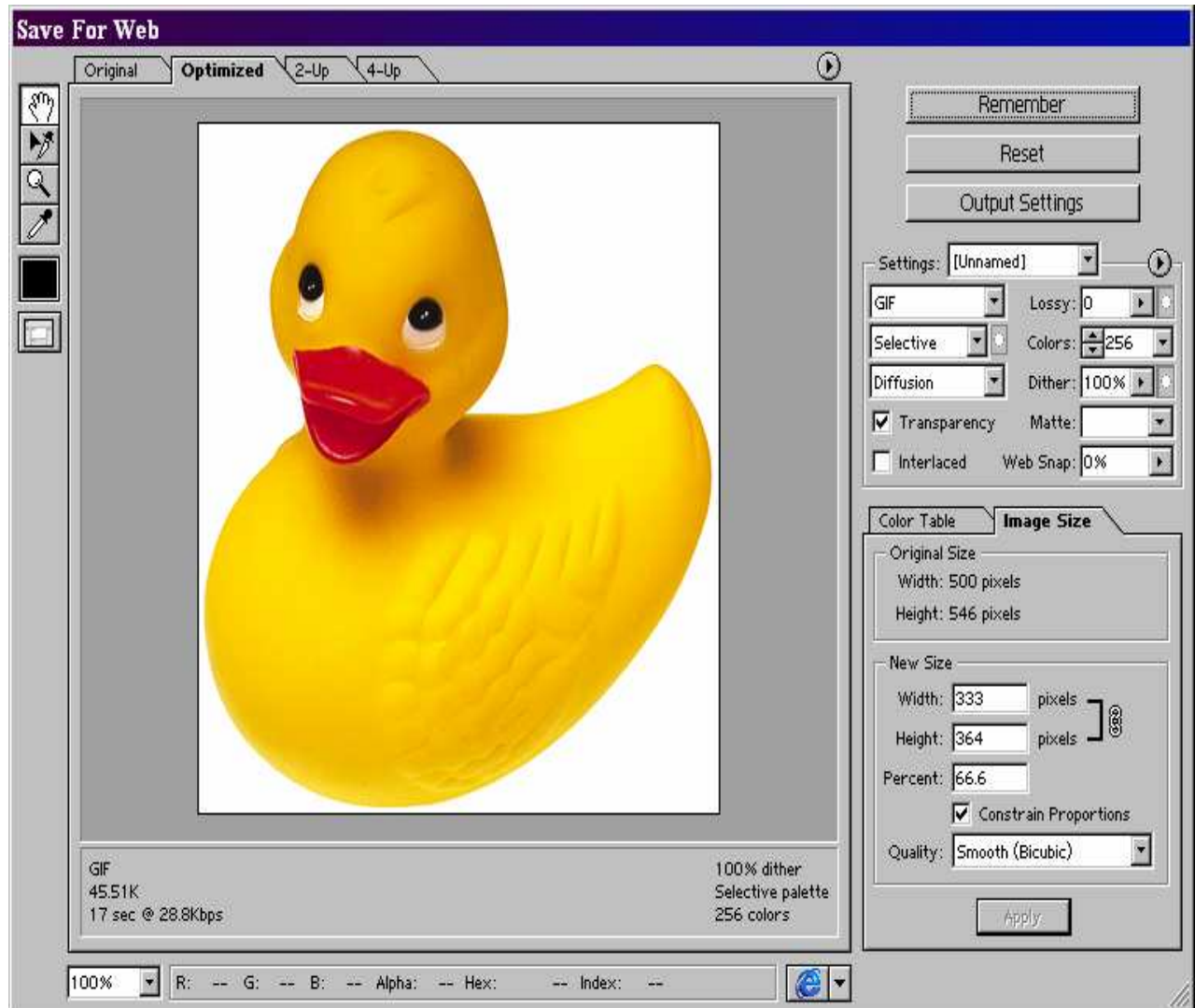
To open recent files worked upon.

Where to save image files?

Choose File-

Save As-

To save image file in a particular file format.

Save for Web-

To save file to be used in webs. Its gives options like changing the image size, file format etc.

Why and how do we import and place images?

Image files are imported by scanning through scanner like TWAIN-32. Images created through Freehand and Illustrator are used in Photoshop files by using the Place command.

Import-To import images created in PDF format. Also, if Plug-ins for scanning is provided, then this option allows scanning of images.

Place- To place any image (parseable format) like the images created through Illustrator, Freehand etc. in the currently opened image.

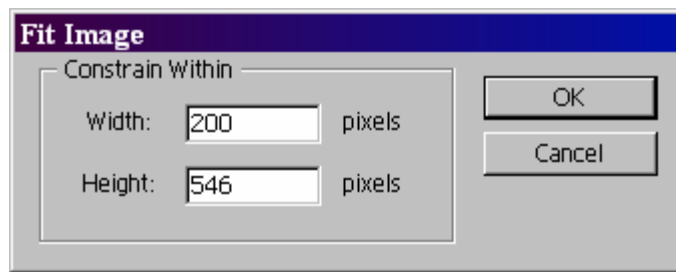
Why do we use automate command?

Automate commands simplify complex tasks by combining them into one or more dialog boxes.

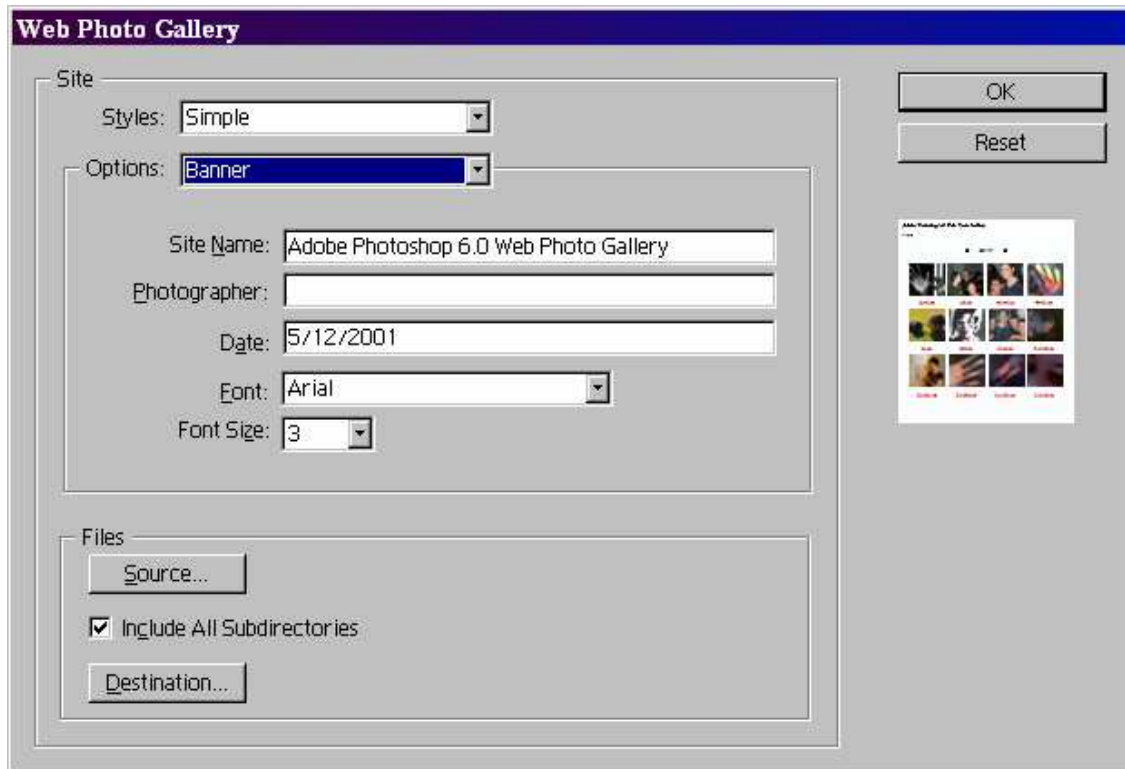
Choose File-

Automate- Simplifies complex tasks by combining two or more dialog boxes.

- Fit Image fits the image to the width and height specified by the user.



- Web Photo Gallery generates a Web site from a set of images--complete with a thumbnails index page, individual JPEG image pages, and navigable links.



4. Using Layers

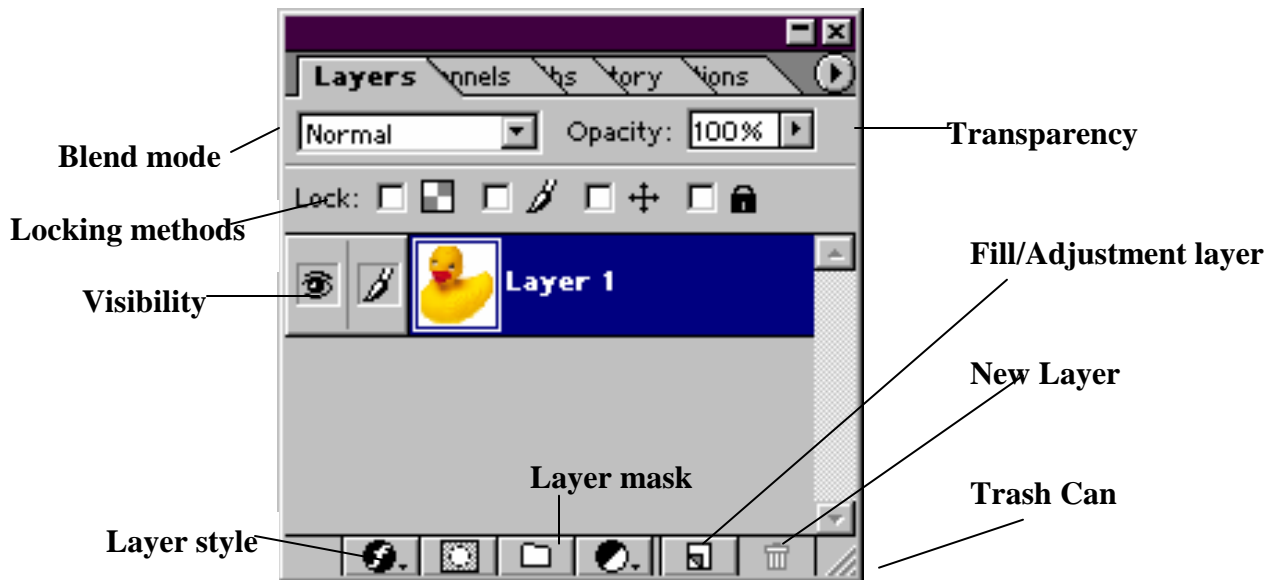
What is layer and how do we use it?

One of Photoshop's most powerful and most popular features is Layers. Layers are similar to acetate or transparent paper. Each Layer in a Photoshop document or image can contain image data that adds to the image data placed on the Layers below. Effectively, each Layer is an entire image unto itself within a master image. By combining these images together, you get what is called a composite, meaning an image composed of many different elements.

Layers are created for coordinating the varied effects entered on an image. Effects entered through one layer will not affect the other layers. Similarly, the layers can be locked and hid.

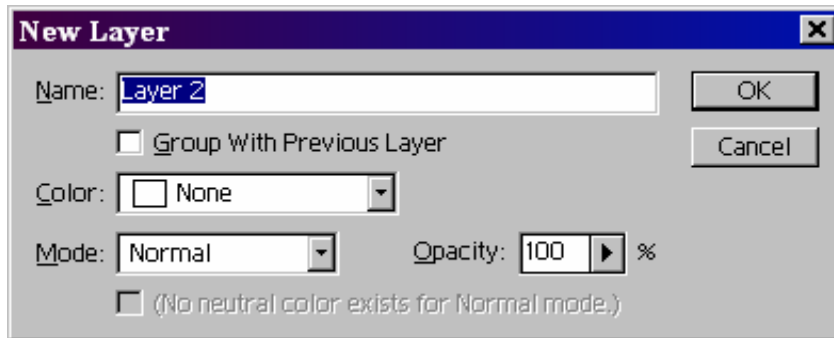
Layers Palette

The Layers Palette is divided into 9 distinct controls, which include Layers, Blend Mode, Opacity, Lock, Layer style, Layer Mask, Fill/Adjustment Layer, New Layer, and Trash Icon set. Its important to note the Layers have a stacking order, from the bottom up, meaning the Layer at the very bottom of the Layers Palette is the last or bottom Layer.

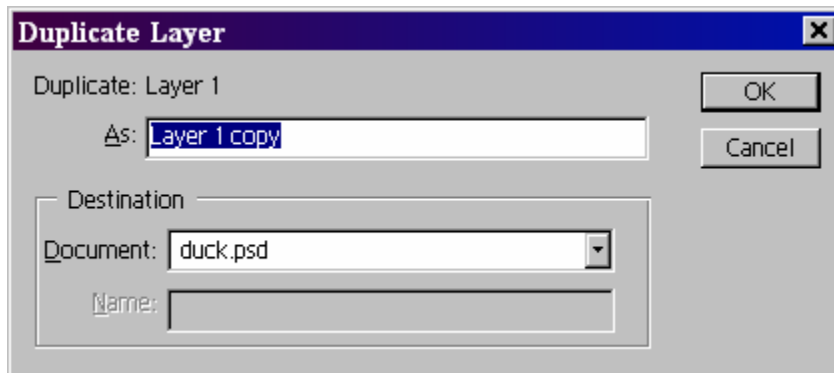


How to create new and duplicate layer and delete them?

- **New layers** can be created by Layer-New.



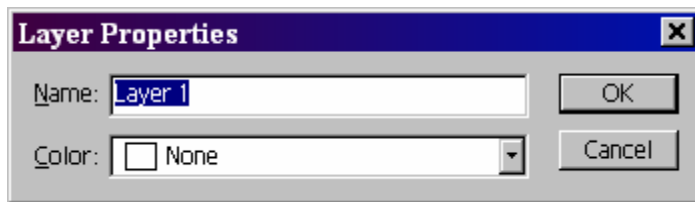
- **Creating duplicates** Layer Via Copy, Layer Via Cut and Duplicate Layer are used for creating a duplicate layer.



For deleting any layer, choose Layer-Delete Layer or rt-click on the active layer and choose Delete Layer.

Why do we use layer properties?

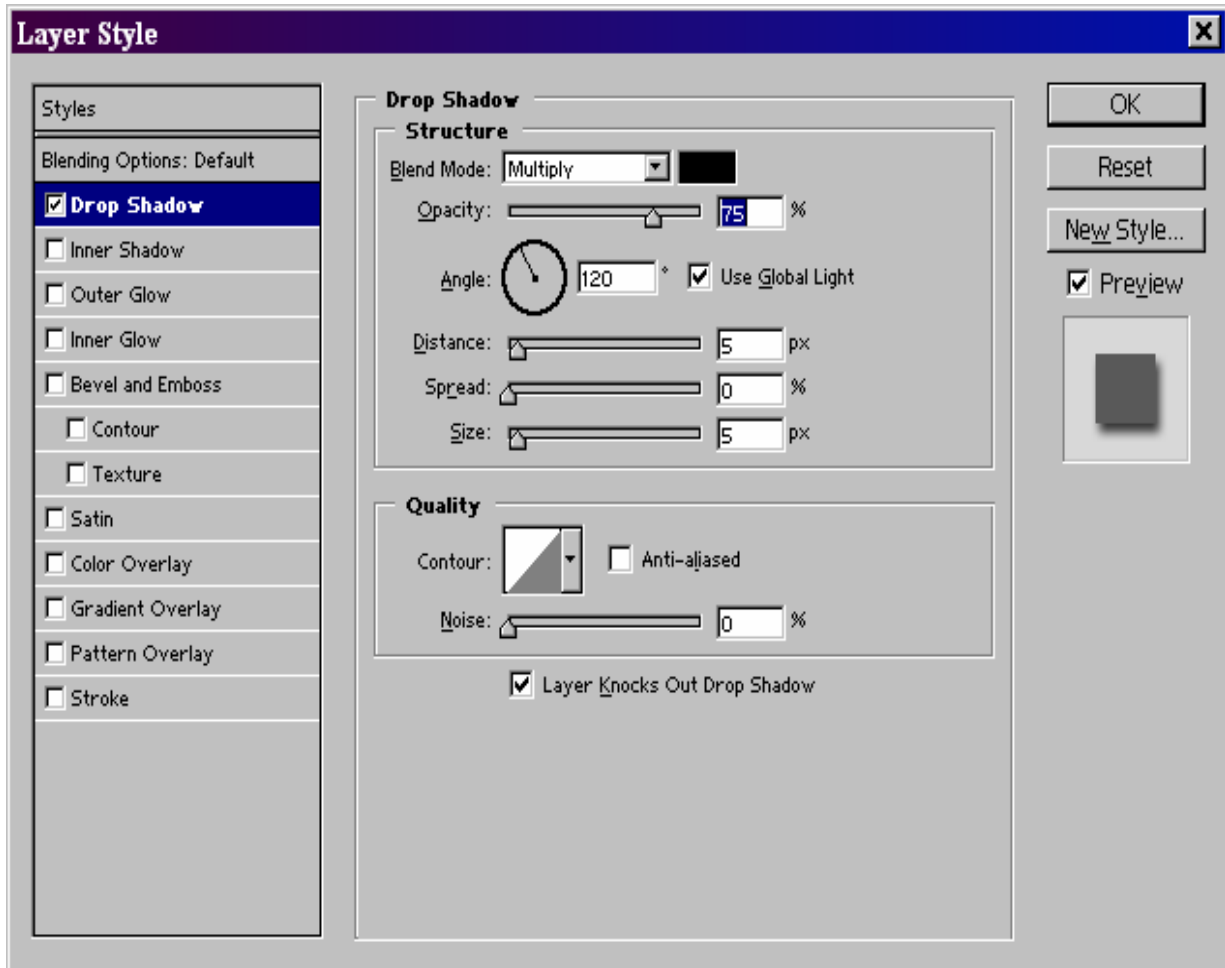
To make changes in the properties of the layer like changing name and color rt-click the layer and choose Layer Properties or from Layer*.



What is the use of Layer Style?

Layer style contains pre-defined special effects applied to the image data contained in the Layer.

Layer Style- Allows varied effects to be inserted on a particular layer.



- Blending Options
- Drop Shadow
- Inner Shadow
- Outer Glow
- Inner Glow
- Bevel and Emboss
- Satin

In the above-mentioned options, change the angle, distance, blur, opacity etc. to see the change in image or layer or selection.

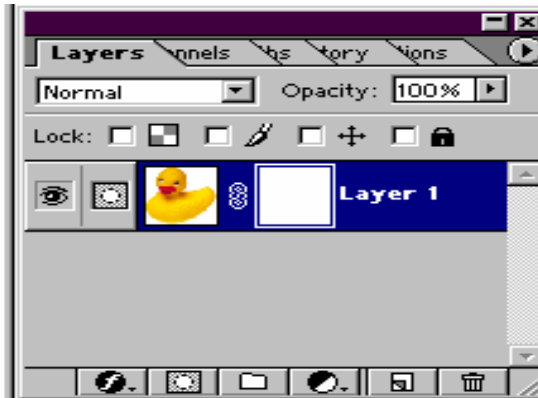
- Color Overlay
- Gradient Overlay
- Pattern Overlay

- Stroke

How to add layer mask?

Add Layer Mask and Add Layer Clipping Path , both the commands are used for creating mask over the selection or the image itself.

Layer Masks are Alpha Channels attached to a Layer. Black completely masks or covers image data. White reveals image data. Gray values between Black and White reveal image data at various degrees of opacity. Add a Layer Mask to the Ducky Layer by *{Clicking}* the "Add Layer Mask" button at the bottom of the Layers Palette. A "Link" icon and a "Mask Thumbnail" are added to the Layer.



Select Add Layer mask-Reveal All. Choose gradient tool and drag the same on the image to reveal the mask.

How to arrange and merge layers?

Layer*- Arrange

Arranges the stacking order of the layers or change the stacking order of Layers simply *{Click}* and drag the Layer above or below other Layers. A solid black line indicates the Layer is ready to be dropped. *{Release}* the mouse button.

For merging layers, choose Layer and carry out the following commands:

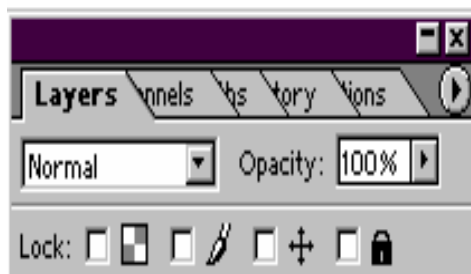
Merge Down- Merges the active layer with the layer below it.

Merge Visible- Merges all visible layers

Flatten Image- Merges all visible layers discarding the non-visible layers.

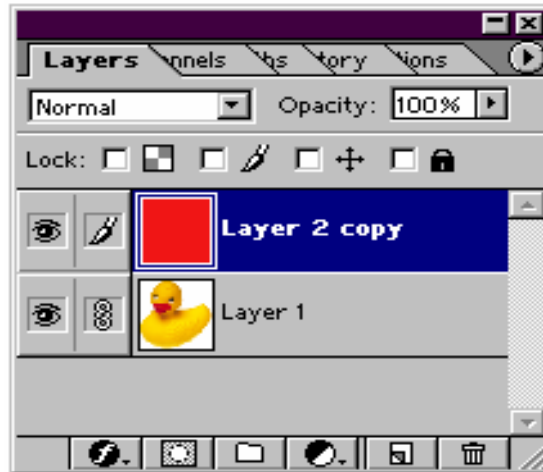
Why do we lock, hid and link layers?

- **Lock** present in the Layer Palette helps in locking the layers



- Lock transparent pixels avoids editing of transparent pixels
- Lock image pixels avoid modifications through painting tools.
- Lock Position disables move tool.
- Lock All prevent changes to be inserted in a particular layer.

- **Eye** indicates that the layer is visible.



- When two or more layers are linked (next to eye) together, then moving a particular layer will also move the layer, which is clipped with it.

5. Reverting the images

- Undo, Step Forward, Step Backward commands in Edit* are used for moving to previous image state.
- Revert in File* will allow you to come back to the original state of the image. It excludes any effects inserted before saving the file.
- Show History in Window* allows deletion of particular effect inserted, revert to the previous state as also used for reverting the original image.



6. Editing and transforming images

Cut, Copy, Paste are simple editing commands which can be used by selecting any image.

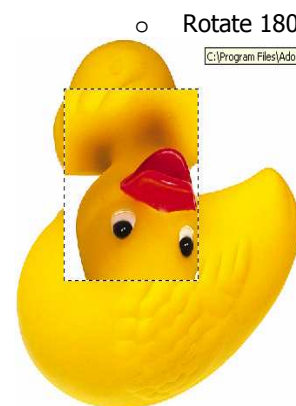
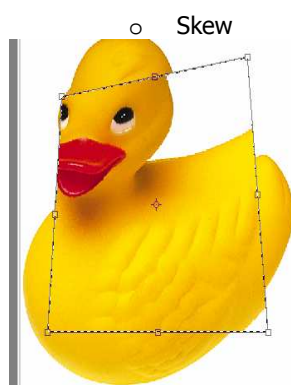
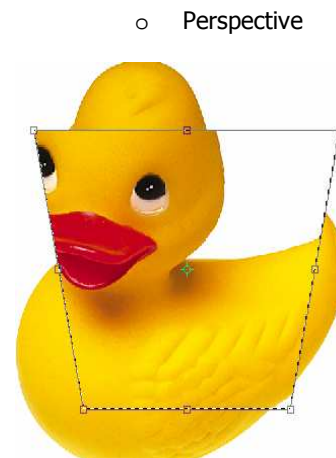
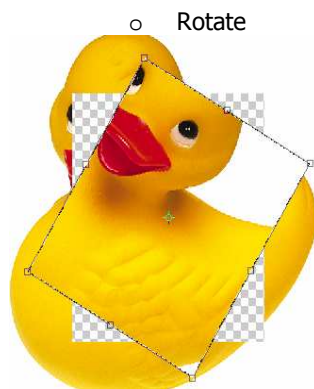
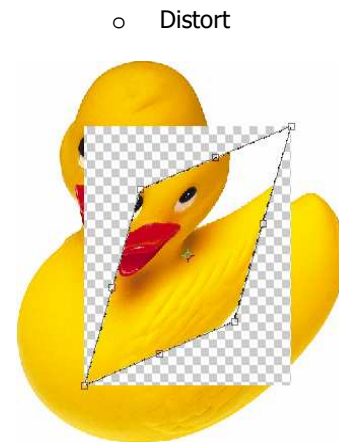
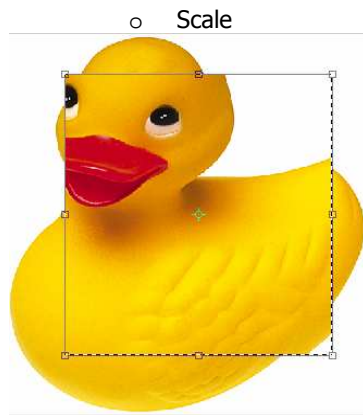
Copy Merged- Creates a merged copy of all the visible layers of a selection.

Clear- Clears the area selected to transparency.

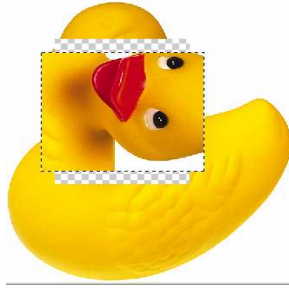
Paste Into- Copy the selection or image. Create a marquee and use this command.

Free Transform in Edit*- Create a selection and choose this command. Specify the pixels in the options bar (x and y coordinates, width, height, set rotation, horizontal and vertical skew).

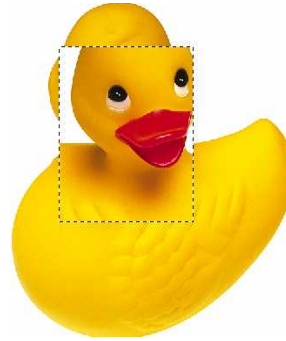
Transform -Drag the corner points to see the change



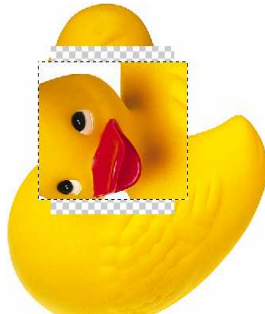
Rotate 90CW



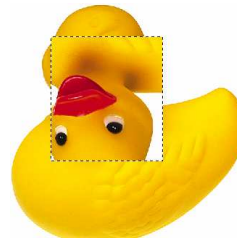
Flip Horizontal



Rotate 90CCW



Flip Vertical



Transform Selection in Select*- Use this command to transform a selection border and choose Edit-Transform

7. Using Filters

What are filters?

Filters are a set of pre-set special effects that you apply to entire images, individual layers, or selections. Images must be in RGB mode to access Photoshop's full range of Filters.

It can be applied to background color image also. Some of the filters do not work with certain colors. To apply a Filter, isolate the area of the image you wish to apply it too. For instance, if you want to apply a Filter, such as Blur, to an entire Layer you would select the Layer in the Layers Palette. If you wanted to apply the Blur Filter to a part of the image data on a Layer, you would make a selection on that Layer and apply the Filter.

Different types of filters used are as follows:

Artistic

Blur

Brush Strokes

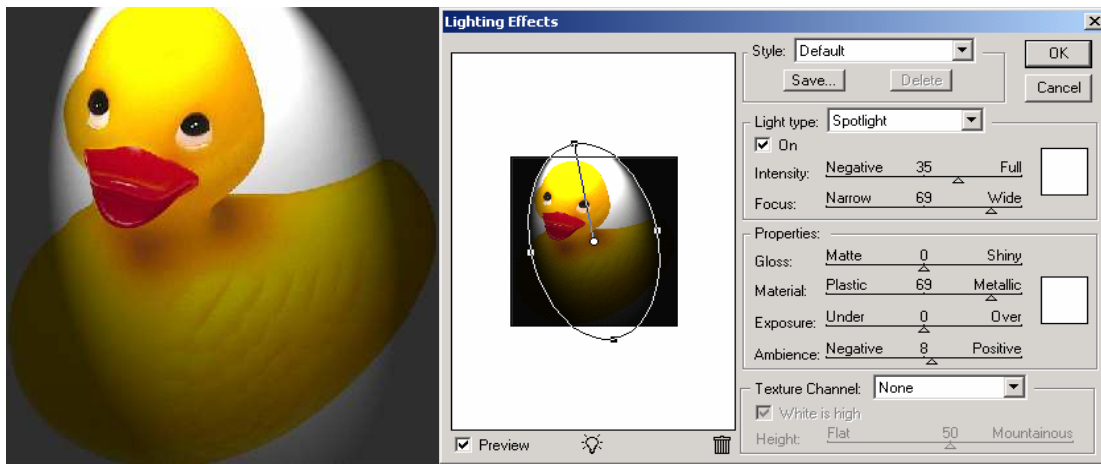
Distort

Noise

Pixelate

Render

- 3D Transform
- Clouds
- Lens Flare
- Lighting Effects



Sharpen Sketch

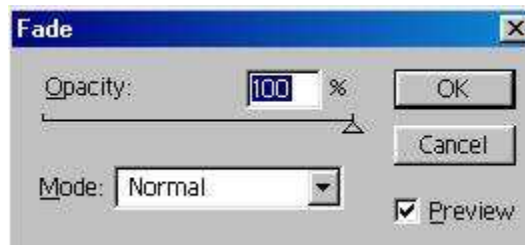
- Notepaper

Stylize Texture Other

- Dither Box

Fine-Tuning Filters with Fade

Once you've applied a Filter you can fine-tune it by selecting Filter/Fade *Filter Name*, where *Filter Name* is the name of the last Filter you applied. In this case we select "Fade Underpainting" from the Filter Menu.

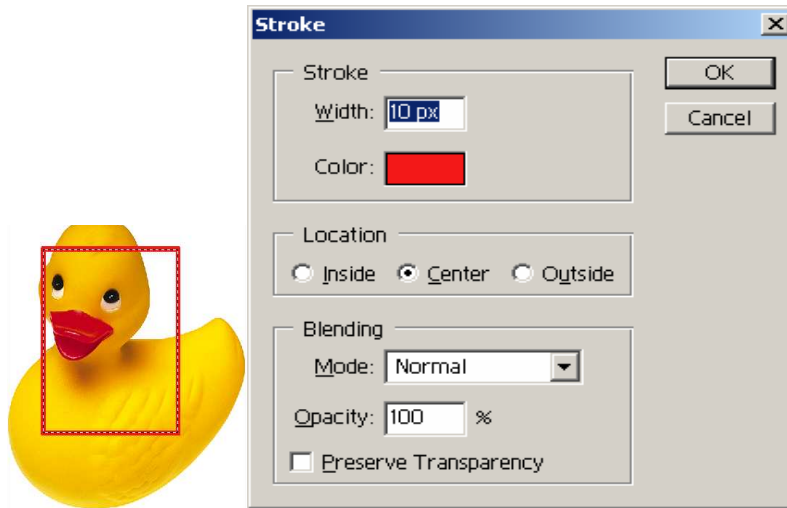


Fade Dialog Box

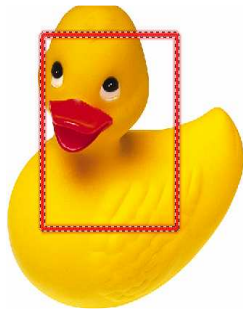
Fade controls include Opacity, Mode (Blend Mode), and Preview.

8. Giving borders and feather

Stroke in Edit* creates a colored border around the image/ selection. Specify the width (1-16), color, opacity, location etc. to give the required effect.



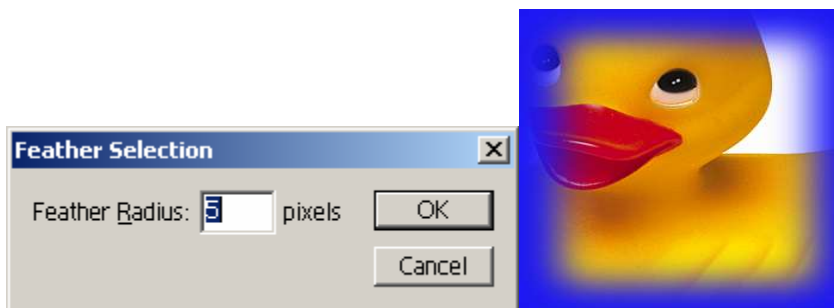
- Border in Select* converts a selection to a double line border. Paint bucket tool or Edit-fill can be used to fill the border.



- Smooth- Smoothens the edges of the selection through the specified sample radius.

Feather in Select*

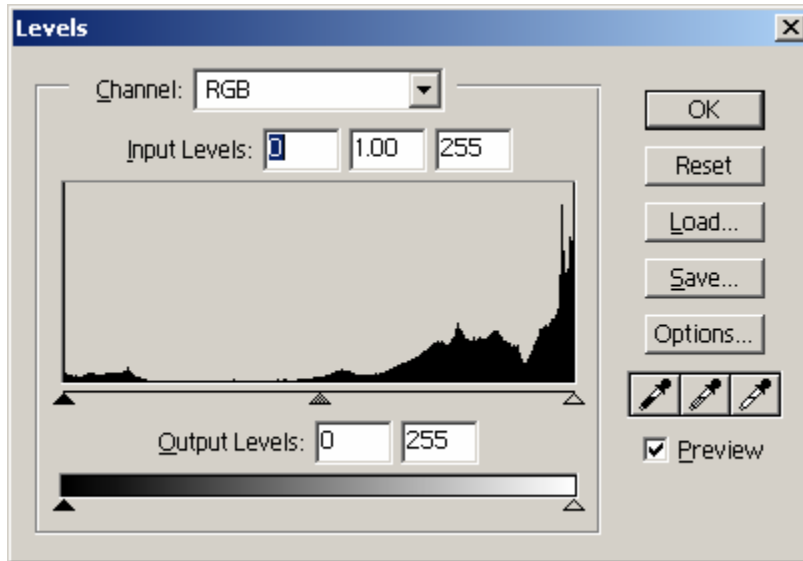
This command is used to soften the edges of the selection. Enter a value in the feather radius to define the amount of feather to be applied to a particular selection.



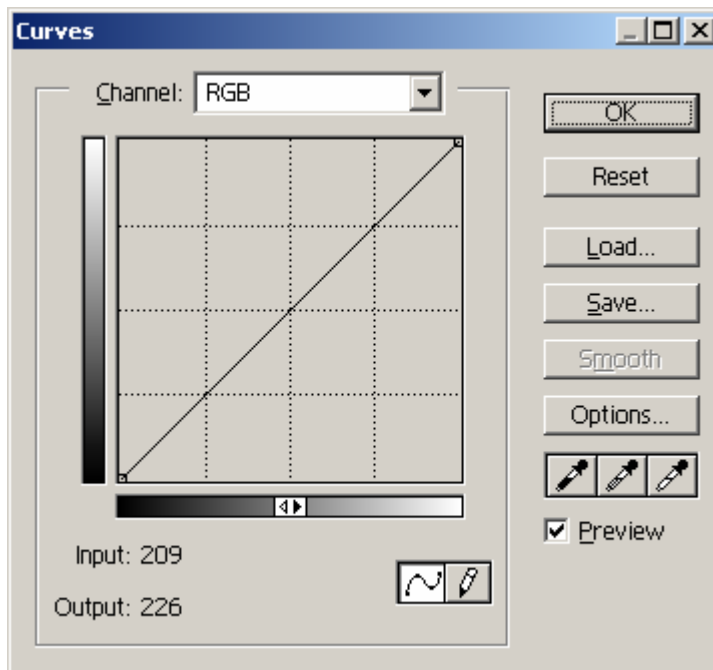
9. Changing color balance and tonal range

Adjust In Image*

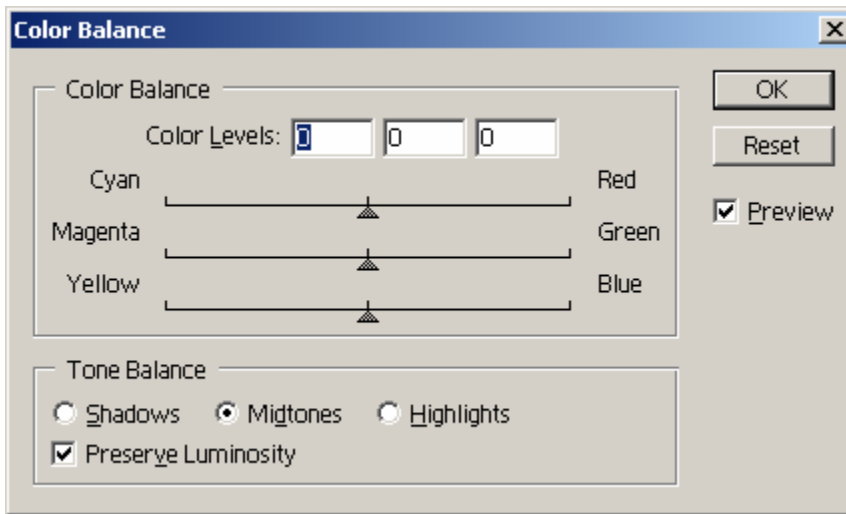
- Levels- Changing the tonal range and color balance of the image. Input and output levels refer to the amount of brightness and contrast used in each channel.



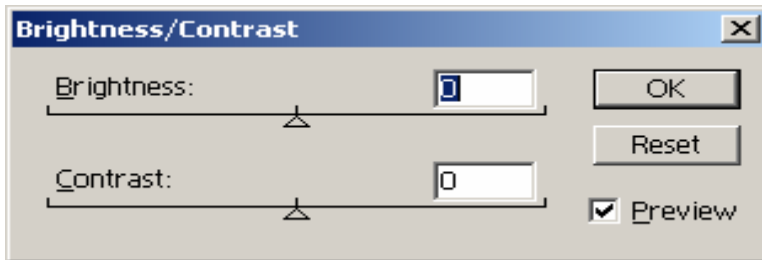
- Curves-Like Levels, used for changing the tonal range and color balance of the image.



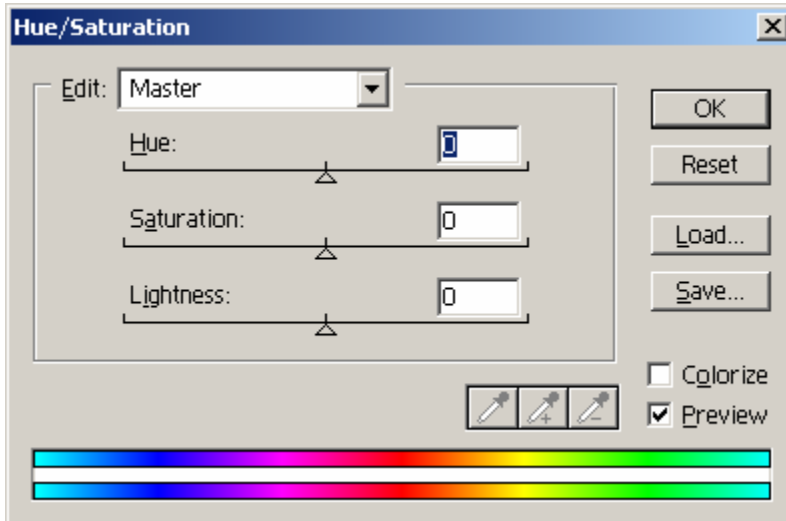
- Color Balance-Changes the overall mixture of colors on the image.



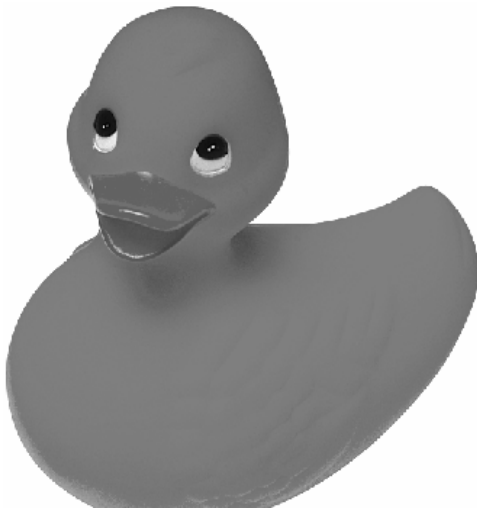
- Brightness/Contrast- Adjusting the brightness and contrast of the image.



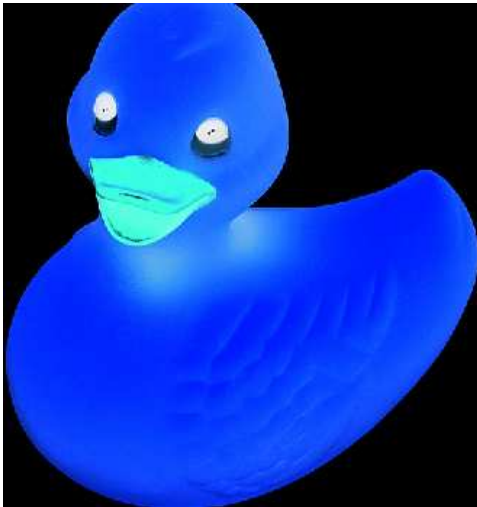
- Hue/Saturation-Adjusting the hue, saturation and brightness of the image.



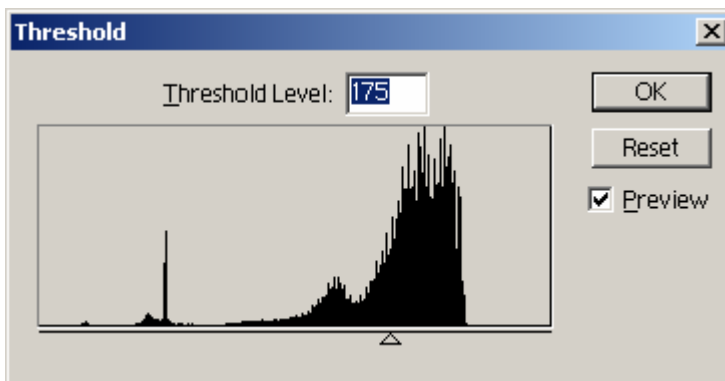
- Desaturate-Converts the image to black and white/grayscale in the same color mode.



- Invert- Makes an image negative or vice-versa.



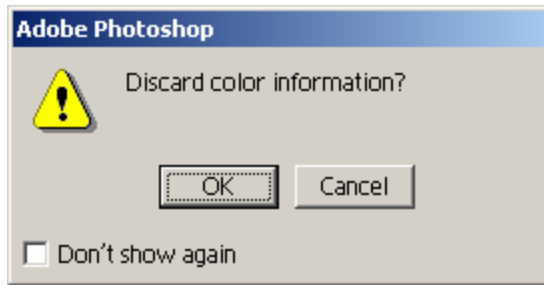
- Threshold-Converts the image into black and white like a newspaper sketch.



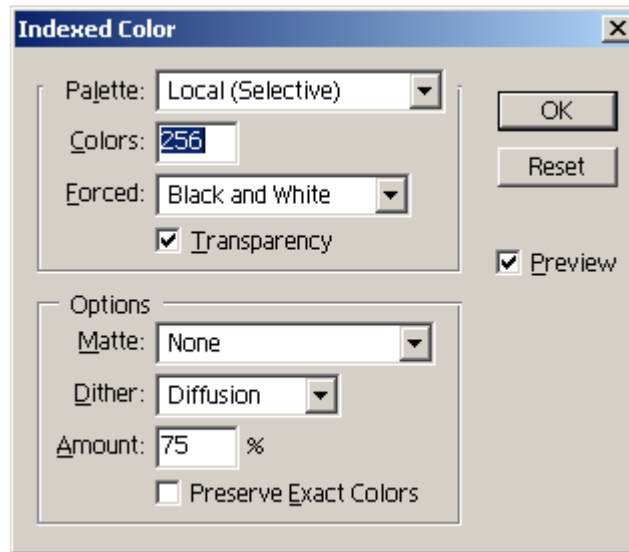
Changing the color mode

Mode In Image*

- Grayscale-Uses 256 shades of gray color. Changes the color of the image to gray.



- Indexed- Uses color lookup table which indexes the colors. Often used for Webs as it reduces the file size and maintains image quality.

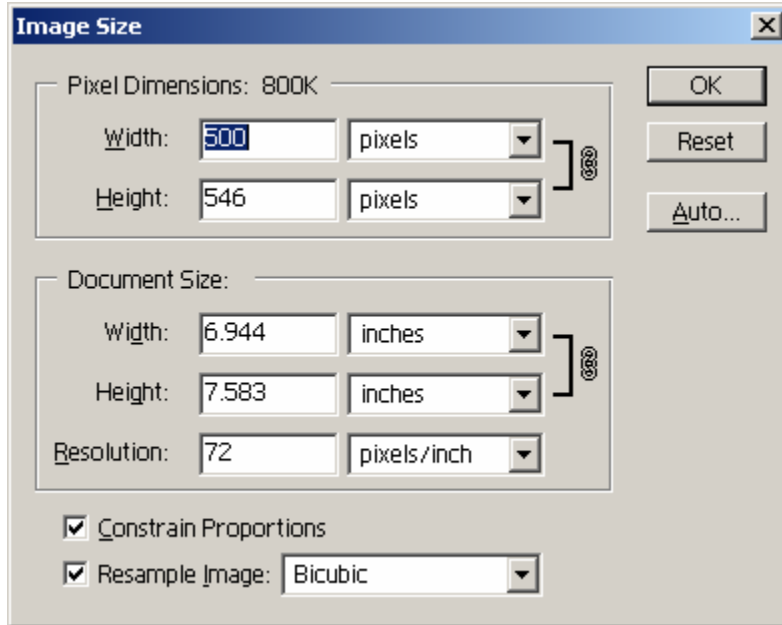


- RGB-It is standard color mode used by the Webs as it uses the colors in the range of 0-255. Most recommended as Photoshop gives a better output in this mode.
- CMYK- Recommended for printing purposes.
 - C-Cyan
 - M-Magenta
 - Y-Yellow
 - K-Black

10. Changing image size

Image Size in Image*

Displays the size of the currently open image file. Unchecking Constrain Proportions will allow change of size.



Canvas Size

Allows increase/decrease of workspace (space outside the image size).

Rotate Canvas

Allows transform of the canvas.

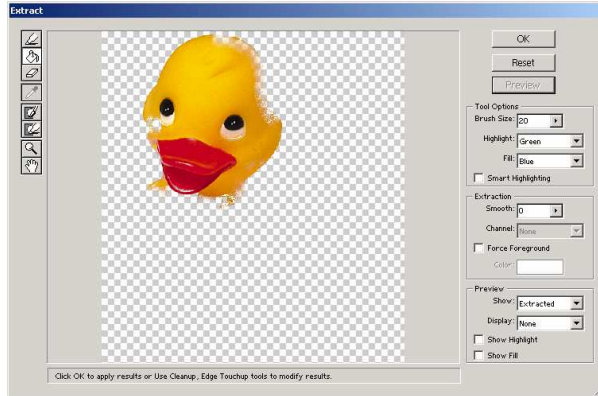
- 180
 - 90CW
 - 90CCW
 - Arbitrary
 - Flip Horizontal
 - Flip Vertical
- Fit Image in File-Automate fits the image to the width and height specified by the user.

11. Extracting and distorting the images

Extract in Edit*

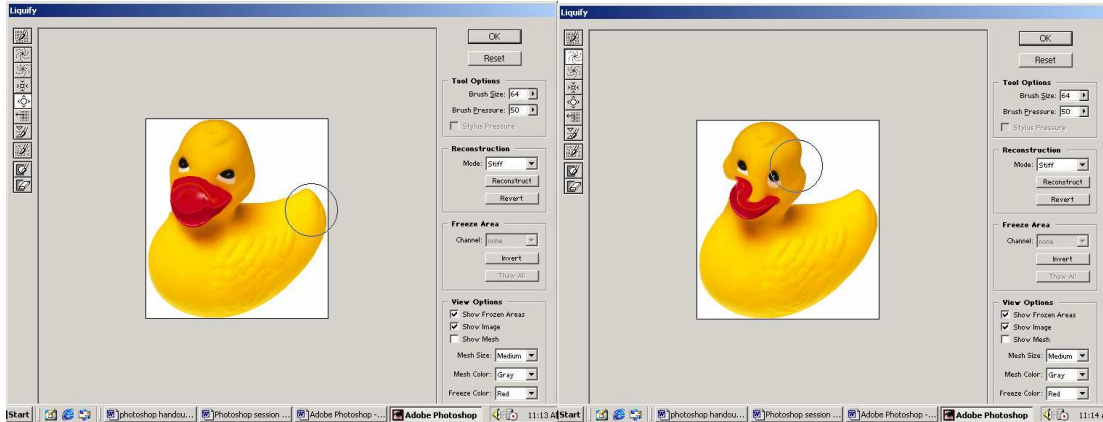
Extracts the non-highlighted areas to transparency.

- Use Edge Highlight option to create a highlight.
- Use Fill to fill inside the highlighted area.
- Click Preview



Liquify

Allows manipulations on the image by distorting the image with the help of warp, twirl, stiff options etc.



12. Using Zoom Function

Show Navigator in Window* allows zooming functions by dragging the slider placed below the image displayed by the Navigator window.



Magnify tool magnifies and reduces the view of an image.

Zoom In and Zoom Out commands in View allow the zooming functions.

Fit to Screen command allows the image to zoom as also to fit into the screen if the workspace is available.

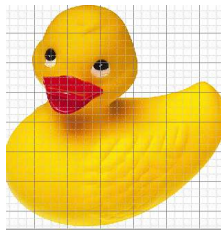
Actual Pixels allow the image to be displayed at 100%.

12. Using guide, grid and rulers

These commands are present in View Menu.

Show displays a list of options that help in editing the selection or image.

- **Grid**- The grid is inserted on the image to make symbols or edit the image.

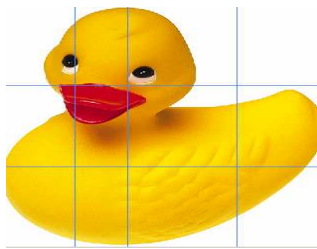


- **Guide**- Similar to grid, but the user has to drag the same horizontally or vertically to create or edit new objects after using Rulers.

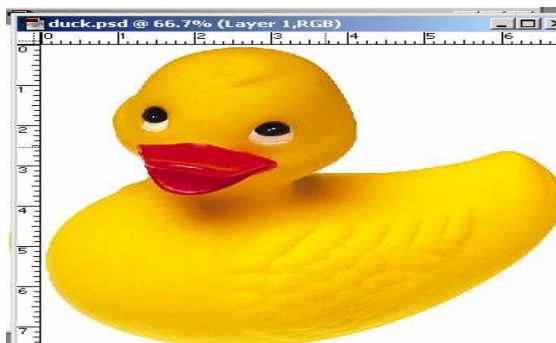
Lock Guides allow locking of guides, especially when any symbol or sign is created using the same. Locking guides helps in telling the user the proportions used when any changes to the object are made in future.

Clear Guides remove the guides from the screen.

New Guide creates a new guide to a specified position depending upon the choice (horizontal or vertical).



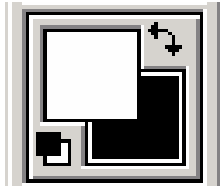
Show Rulers display rulers horizontally and vertically either in inches or cms depending on the ruler settings.



13. Choosing Colors

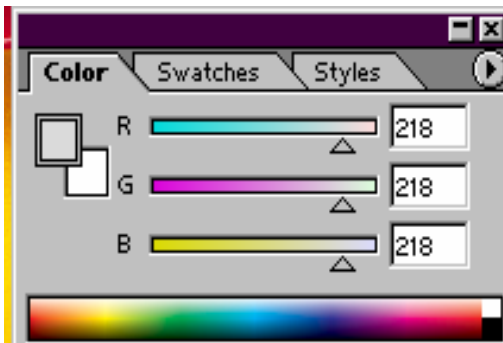
Switch foreground and background colors in Tool Palette

By default- black to white. Rotate arrow allows switching between foreground and background. Click any one of the color box allows change in colors.

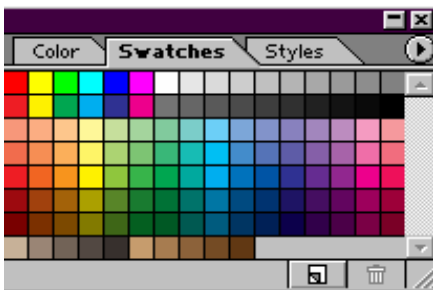


In Window *

Show Color- Displays the amount of red, green, blue colors (RGB mode) used in the foreground or background. Changes in foreground and background colors are possible by dragging the slider present below the above-mentioned color.



Show Swatches- Swatches window displays different types of color that can be used in foreground. For choosing background color, Press Alt and select the color. Clicking the box in the right bottom corner can create new swatches and pressing Ctrl and clicking the selected swatch can make deletions.



14. Channels

How are channels used?

The Channels Palette

The Channels Palette is used to create, manipulate and modify Channels.

Color Channels

There are two types of Channels in Photoshop: Alpha and Color. The Ducky image is made of a combination of three-color Channels, each containing a range of data relating to the primary colors in digital imaging, Red, Green, and Blue. For now, *{Click}* the "Eye" icon beside the Channel thumbnails to toggle the visibility of a color channel. Notice how the color in the image drastically changes. To restore the Channels simply *{Click}* the visibility toggle beside each invisible channel or *{Click}* the visibility toggle of the RGB Channel to activate all the channels.



Alpha Channels

We use Alpha Channels to save our Selections. Alpha Channels do not store color data, rather they store grayscale data used to define and store Selections. *{Click}* "Save Selection as Channel" at the bottom of the Channels Palette. An Alpha Channel is added below the color channels titled, "Alpha 1." To rename the channel simply *{Double-Click}* the Channel Box. Rename accordingly.



The Selection is saved as an Alpha Channel.

The channel is made up of pure black and white. The black indicates the area of the image not selected and the white the area of the image selected. *{Click}* the visibility toggle beside the Alpha Channel. The resulting composite now has a pinkish hue over the image with regular color showing through where the Selection was. *{Click}* the visibility toggle of all the color channels to make them invisible. Only the Alpha Channel is visible. Notice again that the black area represents the area of the image not selected, while the white area represents the area of the image that is selected. In effect, you can look at the Alpha Channel as a mask. The white area is the hole in the mask. When active as a Selection we can only manipulate the area of the image we see through that hole.

16. Setting Preferences

What are preferences?

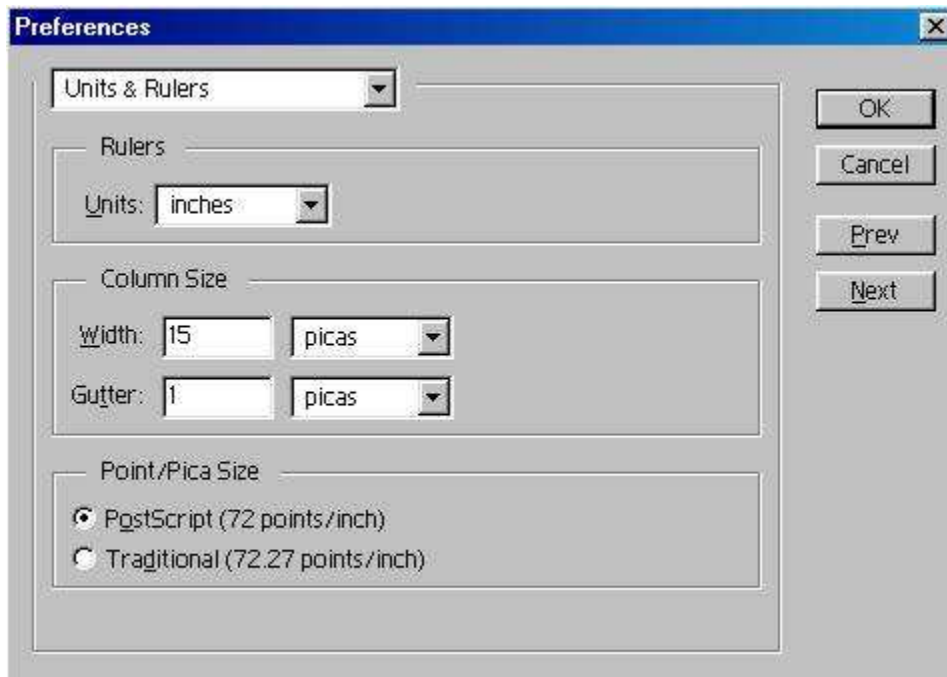
A number of program settings are stored in a *preferences* file, located in the registry (Windows). Among the settings stored in this file are general display options, file-saving options, cursor options, transparency options, and options for plug-ins and scratch disks. Most of these options are set in dialog boxes that can be opened through the Preferences submenu in the Edit menu. Preference settings are saved each time you exit the application.

Unexpected behavior may indicate damaged preferences. You can restore preferences to their default settings to remove damaged preferences. Restoring default preferences deletes any custom preference settings you had applied.

In addition to customizing the look and feel of Photoshop's workspace, you should also set Photoshop's preferences before you begin using the program.

How do we set preferences?

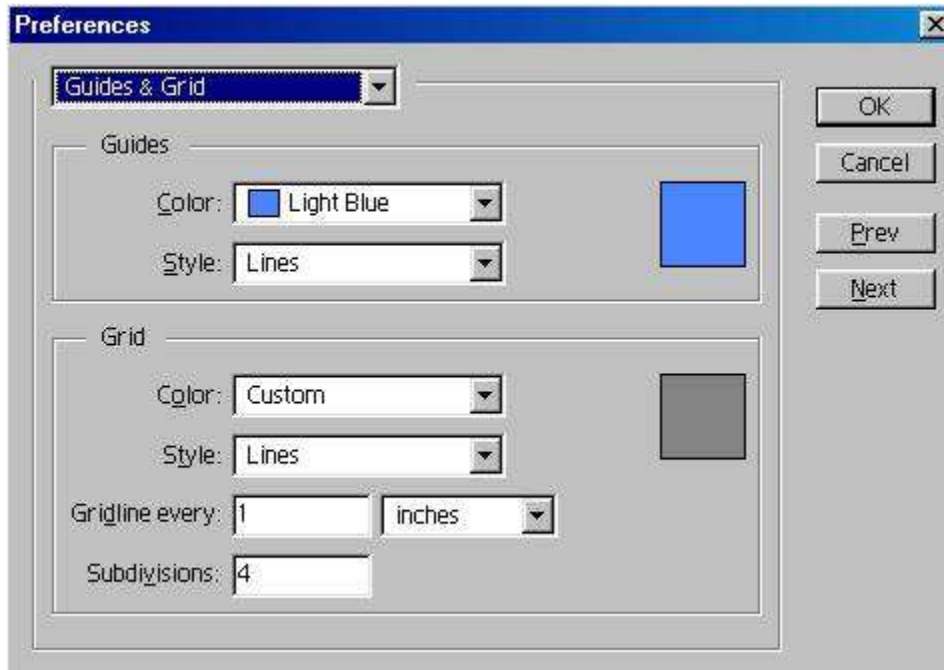
{Click} "File" and select for e.g. "Preferences/Units & Rulers" from the pull-down menu.



Units-Select Pixels. Pixels are the recommended measurement as they are the standard unit for web site development. Other options relate to images created for Print.

Column Size-Column Size and Point/Pica Size control Font attributes. Leave them at the default settings.

Point/Pica Size- Point/Pica Size is Print related settings. Leave it a default, Postscript (72 points/inch).

Preferences - Guides and Grid**Guides**

Select "Color" and "Style" to designate how your guides appear in Photoshop. Guides are straight lines, either horizontal or vertical, that you use as points of reference when editing your images.

Grid

Select "Color," "Style," "Gridline every," and "Subdivisions" to customize Grid settings. Similar to Guides, the Grid is used as a point of reference when editing images. Both Guides and Grid are covered in later chapters.

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