

Photoshop Introduction

Academic Computing Services
A Division of Information Services

www.ku.edu/acs

Abstract: This course covers the basics of Photoshop, including common tools and palettes as well as basic image manipulation.

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Objectives

Introduce the basic concepts of Adobe Photoshop. Upon completion of this course a participant can:

- Understand the difference between raster and vector graphics.
- Use the Photoshop Toolbox tools.
- Use options with each tool via the Option Bar.
- Use the various work area Palettes.
- Create images using Layers.

Prerequisites

Photoshop Introduction requires you to possess "basic computing skills" as a prerequisite to attendance. Specifically, this means that you should have, as a minimum, a basic, working familiarity with using personal computer systems, including the ability to perform common tasks such as open a program, switch from one open program to another, open a document, locate and open a document from within an application's open dialog box, save a document in a specific location from within a application, save a document with a different name or location using the save as command, save a document in a different file format, move, resize, minimize, maximize, restore, and close a window.

Related Training Available from ACS

All workshops offered by Academic Computing Services (ACS), a division of Information Services, are free to KU students, staff, faculty, and [approved affiliates](#). The general public is also welcome to most workshops, but some ACS workshops require a [registration fee](#) for them.

To learn more about or register for workshops, receive automatic announcements of upcoming workshops, and track workshops you've registered for and have attended, visit the ACS Web site at www.ku.edu/acs/train. You can also check our online schedule at www.ku.edu/acs/schedule for a list of class offerings and their availability. For further workshop related questions, please email training@ku.edu.

Definitions

Term	Definition
Raster Graphics	<p>Raster graphics use the points of colors in the grid known as pixels to represent images. Each pixel is assigned a specific location and color value. When working with bitmap images, you edit pixels rather than objects or shapes.</p> <p>Bitmap images are the most common electronic medium for continuous-tone images, such as photographs or digital paintings, because they can represent subtle gradations of shades and color. Bitmap images are resolution-dependent--that is, they contain a fixed number of pixels. As a result, they can lose detail and appear jagged if they are scaled on-screen or if they are printed at a lower resolution than they were created for.</p>
Vector Graphics	<p>Vector graphics are made up of lines and curves defined by mathematical objects called <i>vectors</i>. Vectors describe an image according to its geometric characteristics. For example, a bicycle tire in a vector graphic is made up of a mathematical definition of a circle drawn with a certain radius, set at a specific location, and filled with a specific color. You can move, resize, or change the color of the tire without losing the quality of the graphic.</p> <p>Vector graphics are resolution-independent--that is, they can be scaled to any size and printed at any resolution without losing detail or clarity. As a result, vector graphics are the best choice for representing bold graphics that must retain crisp lines when scaled to various sizes--for example, logos.</p>

The Photoshop Environment



Photoshop Tool Box

The Photoshop toolbox includes the primary tools to work with graphics. These include the tools that let you use type, and select, paint, draw, sample, edit, move, annotate, and view images. Other tools in the toolbox allow you to change foreground/background colors, go to Adobe Online by either clicking **eye symbol** of the **pallet** or by going to **File, Adobe Online**, work in different modes, and jump between Photoshop and ImageReady applications.

Overview of the tools

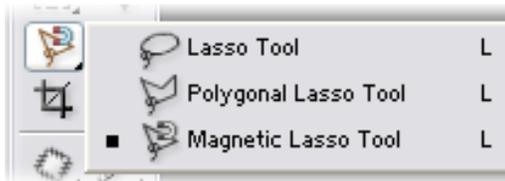
To view the name of a tool button, hold your mouse pointer stationary over the tool you want to see and the name will appear as a tool tip. (See the image right.) Some tool buttons have multiple tools combined into one button. Tool buttons with multiple tools have a small triangle in the lower right hand corner of the button. Click and hold the button to view the alternate tools.

The marquee tools make rectangular, elliptical, single row, and single column selections.



 **The move tool** moves selections, layers, and guides.

The lasso tools make freehand, polygonal (straight-edged), and magnetic (snap-to) selections.



 **The magic wand tool** selects similarly colored areas.

 **The crop tool** trims images.

 **The slice tool** creates slices.

The healing brush tool paints with a sample or pattern to repair imperfections in a image..

The healing brush tool repairs imperfections in a selected area of an image using a sample or pattern.

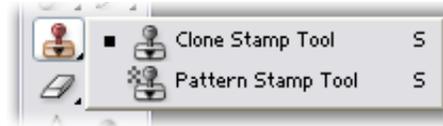


The **brush tool** paints brush strokes.

The **pencil tool** paints hard-edged strokes.



The **clone stamp tool** paints with a sample of an image.
The **pattern stamp tool** paints with part of an image as a pattern.



The **history brush tool** paints a copy of the selected state or snapshot into the current image window.

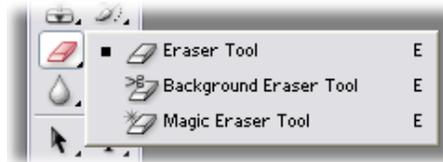
The **art history brush tool** paints with stylized strokes that simulate the look of different paint styles, using a selected state or snapshot.



The **eraser tool** erases pixels and restores parts of an image to a previously saved state.

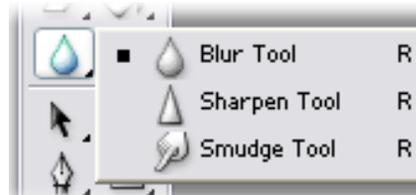
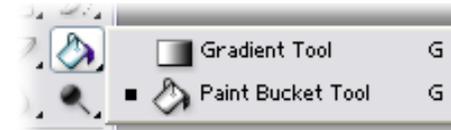
The **background eraser tool** erases areas to transparency

The **magic eraser tool** erases solid-colored areas to transparency with a single click.



The **gradient tools** create straight-line, radial, angle, reflected, and diamond blends between colors.

The **paint bucket tool** fills similarly colored areas with the foreground color.



The **blur tool** blurs hard edges in an image.

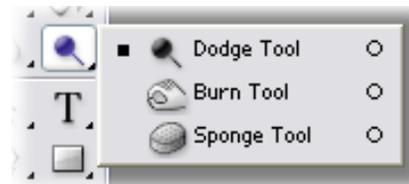
The **sharpen tool** sharpens soft edges in an image.

The **smudge tool** smudges data in an image.

The **dodge tool** lightens areas in an image.

The **burn tool** darkens areas in an image.

The **sponge tool** changes the color saturation of an area.

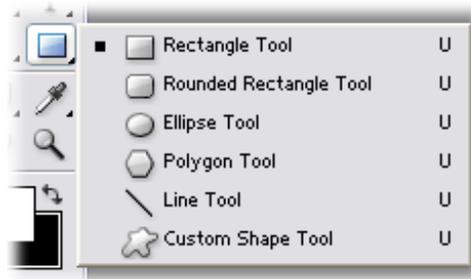


The **path selection tools** make shape or segment selections showing anchor points, direction lines, and direction points.

The **type tool** creates type on an image, or selections in the shape of type.

The **pen tools** let you draw smooth-edged paths.

The **custom shape tool** makes customized shapes selected from a custom shape list.



The **annotations tool** makes notes and voice annotations that can be attached to an image.

The **eyedropper tool** samples color in an image and sets the foreground color to it.

The **color sampler tool** samples colors in an image and records them for reference.

The **measure tool** measures distances, locations, and angles.



The **hand tool** moves an image within its window.



The **zoom tool** magnifies and reduces the view of an image.

Using the tool options bar

Most tools have options that are displayed in the tool options bar. The options bar is context sensitive and changes as different tools are selected. Some settings in the options bar are common to several tools (such as painting modes and opacity), and some are specific to one tool (such as the Auto Erase setting for the pencil tool).

You can move the options bar anywhere in the work area., you can dock it at the top or bottom of the screen.

The options bar includes a palette well for storing other palettes, providing quick access to palettes such as Swatches and Actions that you reference briefly while using the application. The palette well is only available when using a screen resolution greater than 800 pixels x 600 pixels (a setting of at least 1024 x 768 is recommended).

To display the tool options bar:

Do one of the following:

- Choose **Window > Options**.
- Double-click a tool in the toolbox.

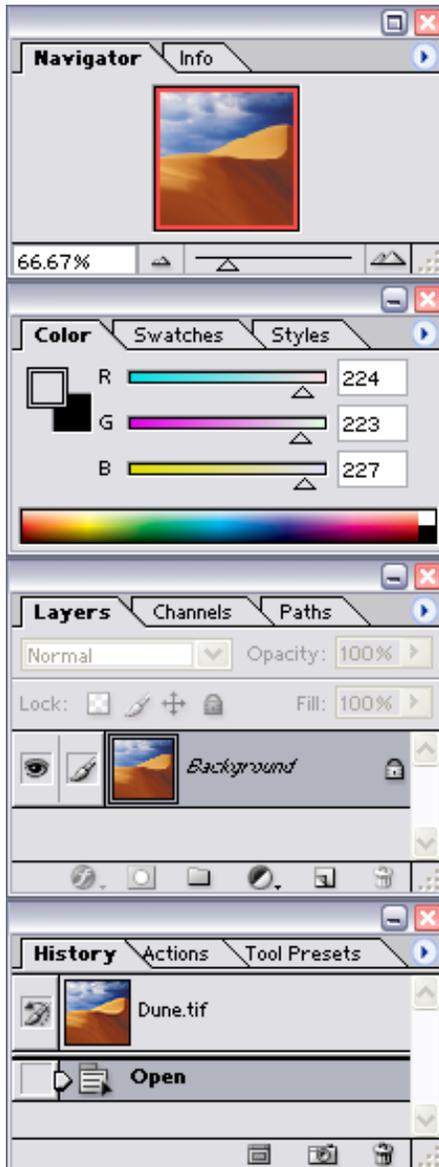
Note: You can double-click the title bar at the left edge to collapse the options bar, showing only the toolicon.



Lasso options bar

To return a tool or all tools to the default settings:

Right-click the tool icon on the options bar, then choose Reset Tool or Reset All Tools from the context menu.



To move the options bar:

Do one of the following:

- Drag the title bar at the left edge of the options bar.
- Grab the gripper bar at the left edge of the options bar. The gripper bar will only appear if the options bar is docked at the top or bottom of your screen.

Using palettes

Palettes help you monitor and modify images. By default, palettes appear stacked together in groups. Palettes groups can be separated by “undocking” a certain palette and rejoined by “docking” it into a group. Click and drag on the palette title to move a palette from one group to another.

Displaying palettes

You can display or hide palettes as you work.

To show or hide palettes:

Do one of the following:

- To show or hide all open palettes, the options bar, and the toolbox, press Tab.
- To show or hide all palettes, press Shift+Tab.

To show or hide one palette:

Choose **Window** > then the palette to hide or show. A check mark will appear beside palettes that are visible.

Correcting mistakes

Most operations can be undone if you make a mistake. Alternatively, you can restore all or part of an image to its last saved version. But available memory may limit your ability to use these options.

To undo the last operation:

Choose **Edit > Undo**.

If an operation can't be undone, the command is dimmed and changes to Can't Undo.

To redo the last operation:

Choose **Edit > Redo**.

You can set the Redo keystroke preference to be the same for Photoshop and ImageReady. Choose **Edit > Preferences > General** and select a preference for the Redo key. You can also set the key to toggle between Undo and Redo.

To free memory used by the Undo command, the History palette, or the Clipboard:

Choose **Edit > Purge**, and choose the item type or buffer you want to clear. If already empty, the item type or buffer is dimmed.

Important: The Purge command permanently clears from memory the operation stored by the command or buffer; it cannot be undone. For example, choosing **Edit > Purge > Histories** deletes all history states from the History palette. Use the Purge command when the amount of information held in memory is so large that Photoshop's performance is noticeably diminished.

To revert to the last saved version:

Choose **File > Revert**.

Note: Revert is added as a history state in the History palette and can be undone.

To restore part of an image to its previously saved version:

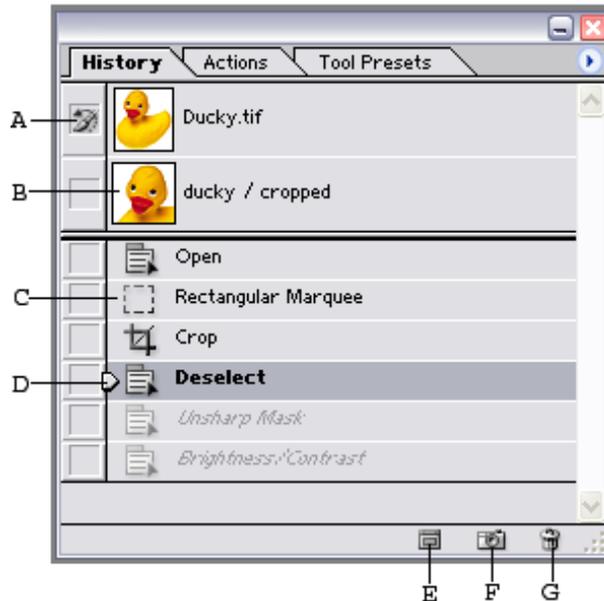
Do one of the following:

- Use the history brush tool () to paint with the selected state or snapshot on the History palette.
- Use the eraser tool () with the Erase to History option selected.
- Select the area you want to restore, and choose **Edit > Fill**. For Use, choose **History**, and click **OK**.

Note: To restore the image with a snapshot of the initial state of the document, choose History Options from the Palette menu and make sure that the Automatically Create First Snapshot option is on.

The History Palette

You can use the History palette to revert to a previous state of an image, to delete an image's states, and to create a document from a state or snapshot.



A. Sets the source for the history brush **B.** Thumbnail of a snapshot **C.** History state **D.** History state slider **E.** Create new document from current state button **F.** Create new snapshot button **G.** Trash button

To delete one or more states of the image

Do one of the following:

- Click the name of the state, and choose Delete from the History palette menu to delete that change and those that came after it.
- Drag the state to the Trash button (🗑️) to delete that change and those that came after it.
- Choose Clear History from the palette menu to delete the list of states from the History palette, without changing the image. This option doesn't reduce the amount of memory used by Photoshop.
- Hold down Alt (in Windows) or Option (in Mac OS) and choose **Clear History** from the palette menu to purge the list of states from the History palette without changing the image.

If you get a message that Photoshop is low on memory, purging states is useful, since the command deletes the states from the Undo buffer and frees up memory. This action cannot be undone.

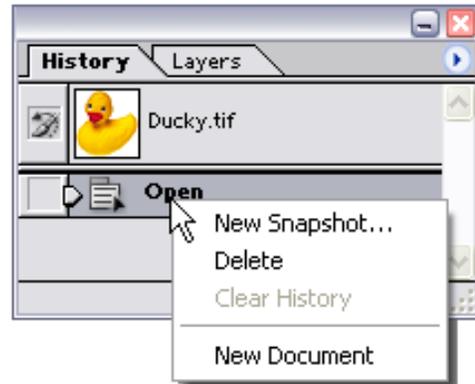
Choose **Edit > Purge > Histories** to purge the list of states from the History palette for all open documents.

Using context menus

In addition to the menus at the top of your screen, context-sensitive menus display commands relevant to the active tool, selection, or palette.

To display context menus:

1. Position the pointer over an image or palette item.
2. Click with the right mouse button (Windows) or hold down Control and press the mouse button (Mac OS).



The Color palette

The Color palette displays the color values for the current foreground and background colors. Using the sliders in the Color palette, you can edit the foreground and background colors according to several different color models. You can also choose a foreground or background color from the spectrum of colors displayed in the color bar.

To display the Color palette:

Choose **Window > Color**, or click the Color palette tab.

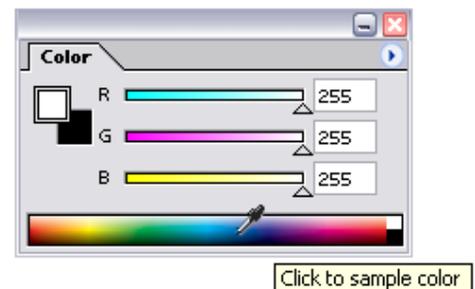
To select the foreground or background color:

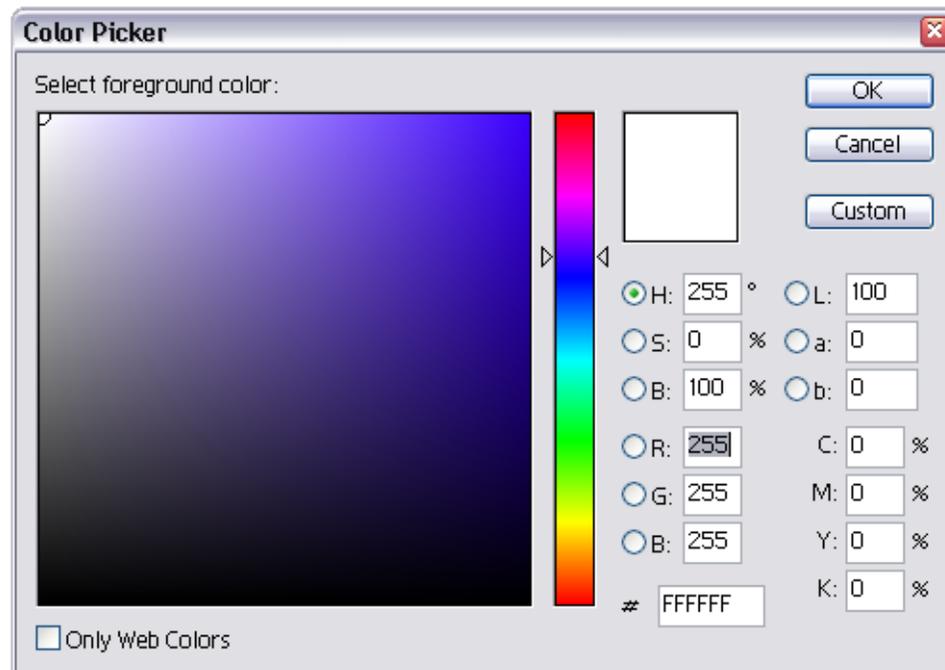
From the Color palette menu, choose the color model you want to use for color readout values.

To edit the foreground or background color, make sure that its color selection box is active or outlined. To make the foreground or background color selection box active, click the box.

To specify a new color, do one of the following:

1. Drag the color sliders.
2. Drag through the color bar along the bottom. If you want to turn off the dynamically changing color sliders preview feature to improve performance, choose **Edit > Preferences > General** and deselect **Dynamic Color Sliders**.
3. Enter values next to the color sliders.
4. Click the color selection box, choose a color in the color picker, and click OK.





The Color Picker

Working with Layers

A new image in Photoshop has a single layer. This layer is called the *background layer* and is analogous to the base layer of a painting. You cannot change the position of the background layer in the stacking order (it is always at the bottom of the stacking order); nor can you apply a blending mode or opacity to a background layer (unless you first convert it to a normal layer).

Layers allow you to make changes to an image without altering your original image data. For example, you might store photographs or elements of photographs on separate layers and then combine them into one composite image. Think of layers as sheets of acetate stacked one on top of the other. Where there is no image on a layer (that is, in places where the layer is transparent), you can see through to the layers below.

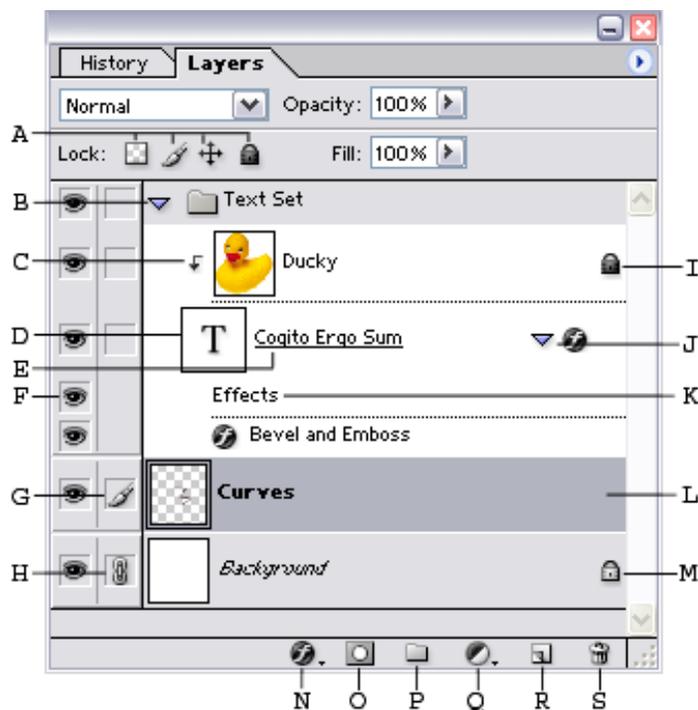
You can draw, edit, paste, and reposition elements on one layer without disturbing the others. Until you combine, or *merge*, the layers, each layer remains independent of the others in the image. This means you can experiment freely with graphics, type, opacities, and blending modes. Photoshop supports normal layers and text layers. Additionally, Photoshop supports adjustment and fill layers. You can apply sophisticated effects to layers using masks, layer clipping paths, and layer styles. In ImageReady, you can also use layers to create rollover states and animations.

When you transfer a layered image between Photoshop and ImageReady, all layers, layer masks, layer clipping paths, layer styles, and adjustment layers are preserved. Although adjustment layers and fill layers can be applied and edited only in Photoshop, they can be viewed in ImageReady. Layer clipping paths can be created with either Photoshop or ImageReady, but Photoshop provides more support for editing them.

The Layers palette

You can use the Layers palette to create, hide, display, duplicate, merge, link, lock, and delete layers. The Layers palette lists all layers and layer sets in an image, starting with the topmost layer. A thumbnail of the layer's contents appears next to the layer name. The thumbnail is updated as you edit. You can make changes only to the *active* layer, and only one layer can be active at a time. When you move or transform the active layer, those changes also affect any layers linked to it. Additionally, you can fully or partially lock layers to protect their contents.

You can also use the Layers palette to apply layer masks and layer clipping paths to a layer. You can also apply layer styles to a layer and create adjustment layers or fill layers. You can use a clipping group to act as a mask for a group of layers or to specify a blending mode for a group of layers.



A. Layer lock options (from left to right): Transparency, Image, Position, All **B.** Layer set
C. Clipping group **D.** Text layer **E.** Base of clipping group **F.** Show/Hide Layer **G.**
Currently editing this layer **H.** Link/Unlink this layer to the one currently selected **I.** Fully
locked layer **J.** Show/Hide layer style **K.** Effects bar **L.** Selected layer **M.** Partially locked
layer **N.** New layer styles **O.** New layer mask **P.** New layer set **Q.** New adjustment or fill
layer **R.** New layer **S.** Trash

Getting Additional Help

ACS provides consulting and Q&A help in a variety of ways:

785/864-0200

question@ku.edu

www.ku.edu/acs/help

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