Adobe Photoshop

- the professional image-editing standard.
- With its integrated Web tool application, Adobe ImageReadyR, Photoshop delivers a comprehensive environment for professional designers and graphics producers to create sophisticated images for print, the Web, wireless devices, and other media.
- graphics editor developed and published by Adobe Systems.
- It is the current market leader for commercial bitmap and image manipulation
- Photoshop is available for Microsoft Windows, Mac OS X, and Mac OS
- The most recent major version, released in 2005, is version 9. This iteration of the program is marketed as "Photoshop CS2." "CS" reflects its integration with "Adobe's Creative Suite" .
    - Photoshop can be bought by itself or as a Suite with Adobe Acrobat® 8 Professional, as well as Adobe Photoshop® CS2, Illustrator® CS2, InDesign® CS2, and GoLive® CS2 software—with Version Cue® CS2, Adobe Bridge, and Adobe Stock Photos. It also ships with the industry's leading web development tool, Dreamweaver® 8.
- **Latest release:** CS2 (9.0.2) / 2006-09-13
- **Preview release:** CS3 beta (10.0) / 2006-12-15

- **ImageReady** is a companion application, shipped with Photoshop, designed specifically for preparing images for the web.
- **ImageReady has fewer features than Photoshop and is** designed for quick editing of web graphics rather than effects-intensive graphics editing. To that end, ImageReady has specialized features such as animated GIF creation, image compression optimization, image slicing and rollover effects, and HTML generation.
- **ImageReady Criticism (as of CS2)** is known to create deprecated legacy code in its HTML generator instead of current W3C-validated code using CSS for positioning.

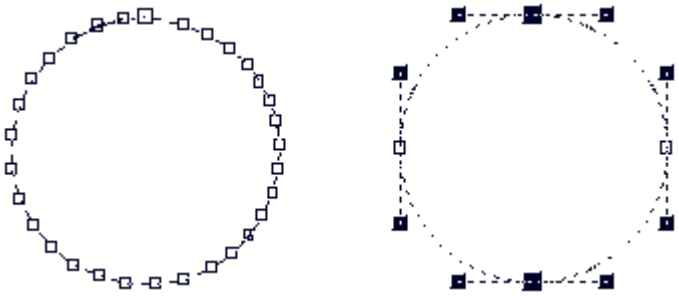
- **Computer graphics** can be classified into two distinct categories: raster graphics and vector graphics
    - Many graphics programs focus exclusively on either vector or raster graphics,
    - It is simple to convert from vector graphics to raster graphics, but going the other way is harder.
        - File formats that are used for raster/bitmap data

          Bitmap data can be saved in a wide variety of file formats. Among these are:

BMP: limited file format that is not suitable for use in prepress.
EPS: flexible file format that can contain both bitmap and vector data.
GIF: mainly used for internet graphics
JPEG: or rather the JFIF file format, which is mainly used for internet graphics
PDF: versatile file format that can contain just about any type of data including complete pages, not yet widely used to exchange just images.
PICT: file format that can contain both bitmap and vector data but that is mainly used on Macintosh computers and is not very suitable for prepress.
TIFF: the most popular bitmap file format in prepress

Vector graphics

Each individual line is made up of either a vast collection of points with lines interconnecting all of them or just a few control points that are connected.



This drawing demonstrates the two principles. To the left a circle is formed by connecting a number of points using straight lines. To the right, you see the same circle that is now drawn using 4 points (nodes) only.

Bitmap

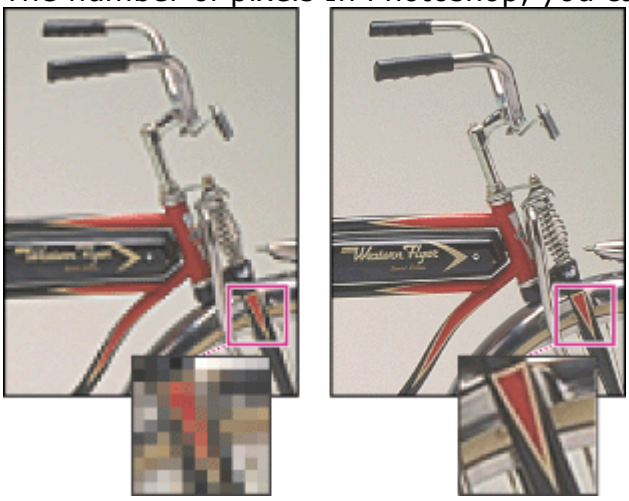
Collection of bits that form an image. Consists of individual pixels that have their own color. a typical bitmap image to demonstrate the principle:

To the left you see an image and to the right a 250 percent enlargement of the top of one of the mountains.

- The quality of a raster image is determined by the total number of pixels (resolution), and the amount of information in each pixel (often called color depth).
- For example, an image that stores 24 bits of color information per pixel can represent smoother degrees of shading than one that only stores 16 bits per pixel,
- An image sampled at 640 x 480 pixels (therefore containing 307,200 pixels) will look rough and blocky compared to one sampled at 1280 x 1024 (1,310,720 pixels).

Image resolution

The number of pixels In Photoshop, you can change the resolution of an image;



Example of an image at 72-ppi and 300-ppi

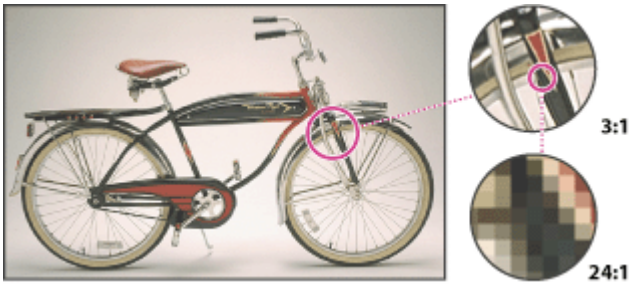
- Data techniques are often used to reduce this size for images stored on disk. Some techniques sacrifice information, and therefore image quality, in order to achieve a smaller file size.
- Raster graphics cannot be scaled to a higher resolution without loss of apparent quality.
- This is in contrast to vector graphics, which easily scale to the quality of the device on which they are rendered.
- Raster graphics are more practical than vector graphics for photographs and photo-realistic images,
- while vector graphics are often more practical for typesetting or graphic design.
- Modern computer monitors typically display about 72 to 130 pixels per inch (PPI), and some modern consumer printers can resolve 2400 dots per inch (DPI) or more;

About bitmap images and vector graphics

Computer graphics fall into two main categories--*bitmap* and *vector*. You can work with both types of graphics in Photoshop and ImageReady; moreover, a Photoshop file can contain both bitmap and vector data. Understanding the difference between the two categories helps as you create, edit, and import artwork.

Bitmap images

Bitmap images--technically called *raster images*--use a grid of colors known as pixels to represent images. Each pixel is assigned a specific location and color value. 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.

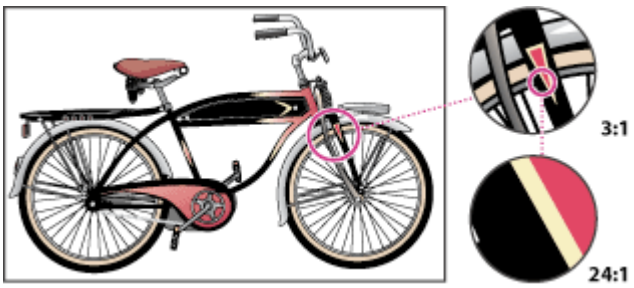


Example of a bitmap image at different levels of magnification

Vector graphics

Vector graphics are made up of lines and curves defined by mathematical objects called *vectors*. 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.

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.



Example of a vector graphic at different levels of magnification

Because computer monitors represent images by displaying them on a grid, both vector and bitmap data is displayed as pixels on-screen.

About layers

Layers allow you to work on one element of an image without disturbing the others. Think of layers as sheets of acetate stacked one on top of the other.
Where there is no image on a layer, you can see through to the layers below.

You can change the composition of an image by changing the order and attributes of layers. In addition, special features such as adjustment layers, fill layers, and layer styles let you create sophisticated effects.

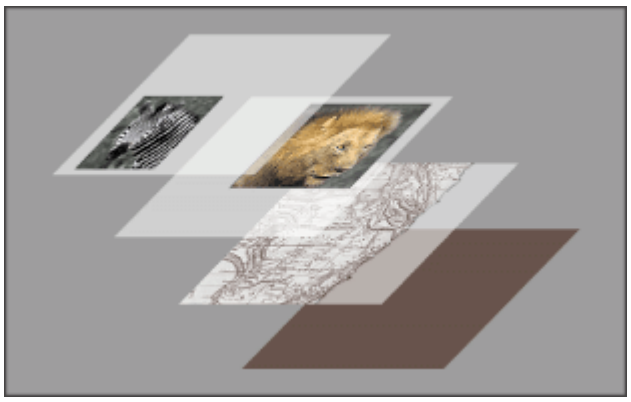


Illustration of how transparent areas on a layer let you see through to the layers below

File Browser

Displays thumbnails and metadata such as date modified, dimensions, and EXIF information from your digital camera. You can also use the File Browser to sort files and manage folders.

Using the File Browser (Photoshop)

- File Browser lets you view, sort, and process image files.
- You can use the File Browser to perform tasks such as creating new folders; renaming, moving, and deleting files; and rotating images.
- You can also view individual file information and data imported from your digital camera.

The Photoshop File Browser: **A.** File information **B.** File Browser palette menu **C.** File information pop-up menu **D.** Sort By pop-up menu **E.** View By pop-up menu

Displaying the File Browser

Choose File > Browse or Window > File Browser. By default, the File Browser is displayed in the palette well. To display the File Browser in a separate window, choose Show in Separate Window from the palette menu. For more information on using palettes in the palette well, see Using the palette well (Photoshop).

Using the File Browser palette menu

Click the triangle in the upper right corner of the palette to access commands for working with layers. If the palette is docked in the palette well, click the triangle on the palette tab.

Navigating in the File Browser

Double-click a folder to view its contents. To show or hide folders on the right side of the palette, choose the Show Folders from the palette menu. A check mark indicates that folders are showing.

Changing the display of files

Choose a thumbnail display option from the palette menu, or click the View By pop-up menu at the bottom of the File Browser and choose a display option.

Sorting files

Click the Sort By pop-up menu at the bottom of the File Browser, and choose a sorting option.

Ranking files

Ranking lets you manually control the sort order of files. To specify a rank, choose the Large Thumbnail with Rank display option, click in the Rank field, type a letter, and press Enter (Windows) or Return (Mac OS). Alternately, right click (Windows) or Control-click (Mac OS) a thumbnail and choose a rank from the context menu.

Note: To rank multiple files, select multiple thumbnails and then choose a rank from the context menu.

Displaying file information

Click the File Information pop-up menu at the bottom of the File Browser, and select one of the following: All to view all image information for a file; or EXIF to view image information imported from your digital camera.

Selecting and deselecting files

On the right side of the palette, click a thumbnail to select the file, or Shift-click to select multiple files. To select all files in the current folder, choose Select All from the palette menu. To deselect all files, choose Deselect All from the palette menu.

Opening files

Select the file or files you want to open, and do one of the following: select a file and press Enter (Windows) or Return (Mac OS); double-click a selected file; drag the selected file or files out of the File Browser; or choose Open from the palette menu.

When the File Browser is docked in the palette well, double-clicking a file or selecting a file and pressing Enter (Windows) or Return (Mac OS) opens the image and closes the File Browser. To keep the File Browser open, hold down Alt (Windows) or Option (Mac OS) when you double-click the file, press Enter (Windows), or press Return (Mac OS).

Renaming files and folders

On the right side of the palette, click a filename or folder name, or select a file or folder and choose Rename from the palette menu. Then type a new name, and press Enter (Windows) or Return (Mac OS).

Note: To move to the next filename, press Tab. To move to the previous filename, press Shift+Tab.

Renaming files in batches

To rename all the files in a folder, make sure that no files are selected. To rename a subset of files in a folder, select the files you want to rename. Then choose Batch Rename from the palette menu, and set the following options:

- For Destination Folder, select where you want to place the renamed files: in the same folder or in a different folder. If you select Move to New Folder, click Browse to select a different folder.
- For File Naming, choose elements from the pop-up menus or enter text into the fields. The specified elements and text will be combined to create the new filename.
- For Compatibility, select the operating systems with which you want renamed files to be compatible. The current operating system is selected by default, and you cannot deselect it.

Deleting files

Select the file or files you want to delete, and do one of the following: click the Trash button, drag the files to the Trash button , press the Delete key, or choose Delete from the palette menu.

Creating new folders

Choose New Folder from the palette menu, type a name, and press Enter (Windows) or Return (Mac OS).

Moving and copying files

To move a file, drag it to a different folder; to copy a file, Alt-drag (Windows) or Option-drag (Mac OS) it to a different folder.

Rotating images

Select one or more files, and do one of the following: choose a rotation option from the palette menu; click the Rotate button to rotate the images clockwise by 90 degrees; or Alt-click (Windows) or Option-click (Mac OS) the Rotate button to rotate the images counter-clockwise by 90 degrees.

Refreshing the view

When you rename a file, the order of files in the File Browser is not automatically updated. To refresh the view, choose Refresh Desktop View from the palette menu. Closing and reopening the File Browser also refreshes the view.

Displaying files in the Windows Explorer or Mac OS Finder

Choose Reveal Location in Explorer (Windows) or Reveal Location in Finder (Mac OS) from the palette menu.

Purging the cache

The cache stores thumbnail and file information to make loading times quicker when you return to a previously viewed folder. To purge the cache and free disk space, choose Purge Cache from the palette menu.

Note: Purging the cache deletes ranking and thumbnail information.

Exporting the cache

Exporting the cache allows you to burn a CD without having to generate thumbnails. To export the cache, choose Export Cache from the palette menu. The cache is exported to the current folder in the File Browser.

Other Subjects:
Cropping
Filters
Image size
Automate