



World Wide Web Graphics

File Formats

Because the internet community is using a variety of computer platforms (UNIX, Windows, Windows95, OS2, Macintosh), it is important to use standard file formats so that all users will be able to share content. Picture file formats are equivalent to languages into which the pictures have been translated. So, if all of the pictures on the internet are in the same “language,” all users will see them. The internet standards for graphics are:

Language Name	Required Extension	Main Use
JPEG	jpg	photographs
GIF	gif	clip art/animation

Features

- ◆ GIF
 - Creates small files by limiting the colors to 256 (among other things).
 - Backgrounds can be made transparent.
 - Images can be interlaced, that is, presented quickly in an unfinished form, and then focused as the picture loads.
 - Can be animated.
- ◆ JPEG
 - Creates small files by throwing out unnecessary data, but by preserving millions of colors. Thus, it’s ideal for photographs, or for pictures containing gradients.
 - Can be saved at a variety of image qualities in order to balance the file size and the required picture detail.

Creating/Converting

Nearly any picture can be translated into JPEG or GIF. All you need is a program which can view and save pictures in a variety of languages. My favorite is GraphicConverter; it can be downloaded at www.lemkesoft.de/us_gcdownload.html and is free for a trial period. The shareware fee is currently \$35. Another good one is called GIFConverter (it’s available at www.shareware.com). In either program, simply open a graphic and SAVE AS the file type you want to use.

More expensive programs such as PhotoShop will also do the trick if you have access to such. *Remember to include the extension (.gif or .jpg) in the new name of the picture!*

Editing Web Graphics

Once the graphic has been converted to the correct file type, it is important to minimize the file size—the smaller the file size, the quicker the download time for the end user.

General Procedures

Use the smallest acceptable image size

Resize all images so that they are no bigger than they will appear on a web page. Reducing the image size will dramatically reduce the file size.

Scan images at no more than 72 dots-per-inch (dpi)

Because images for web pages will be viewed on computer monitors with screen resolutions between 72 and 96 dpi, it seldom makes sense to scan pictures at a higher resolution.

JPEG Procedures

Save the image at several quality settings

The JPEG file type allows the user to select various quality settings during the SAVE process. Save the image at several quality settings and choose the image that retains the necessary quality while minimizing the file size.

GIF Procedures

Take control of the palette

All GIF images have a 256-color palette (or “table”) associated with them. Often, the colors in the table are based upon the default system colors of the computer that created them. Therefore, GIF images made with a Mac will look slightly different than those made with a Windows machine. To overcome this hazard, there are two alternatives:

- 1) Save the image with an “adaptive” or “custom” palette
- 2) Save the image with the 216-color “web palette”

Dither or not

Because of a GIF’s limited color palette, portions of photographs or gradients will sometimes look “banded” or “blotchy.” Dithering minimizes this banding by blending adjacent colors. Generally, it is helpful to dither photographs that are saved as GIF.

On the other hand, clip art and graphics that use solid blocks of color tend to look better with dithering turned off.

Reduce the number of colors in the palette

Some graphics are created with only a handful of colors. In such a case, it is wasteful to use a 256-color table. Minimize the colors in the table so that the palette includes only the colors that are used in the image.