

DIGITAL IMAGE FILE FORMATS

PSD

Photoshop format (PSD) is the default file format and the only format that supports all Photoshop features. When saving a PSD file for use in a previous version of Photoshop or ImageReady, you can set a preference to maximize file compatibility.

TIFF

Tagged-Image File Format (TIFF) is used to exchange files between applications and computer platforms. TIFF is a flexible bitmap image format supported by virtually all paint, image-editing, and page-layout applications. Also, virtually all desktop scanners can produce TIFF images. TIFF documents can have a maximum file size of 4 GB. Photoshop CS supports large documents saved in TIFF format. However, most other applications and older versions of Photoshop do not support documents with file sizes greater than 2 GB. For more information on saving large documents in TIFF format, see [Saving large documents \(Photoshop\)](#).

TIFF format supports CMYK, RGB, Lab, indexed-color, and grayscale images with alpha channels and Bitmap-mode images without alpha channels. Photoshop can save layers in a TIFF file; however, if you open the file in another application, only the flattened image is visible. Photoshop can also save annotations, transparency, and multiresolution pyramid data in TIFF format.

GIF

Graphics Interchange Format - Images using a fixed color palette (limited to only 256 colors - not the full spectrum of colors available to your monitor). The GIF format uses compression for smaller files and faster downloads. This format is best for images with solid colors or areas of uniform color such as illustrations and logos. GIF format preserves transparency in indexed-color images; however, it does not support alpha channels.

JPG

Joint Photographic Experts Group - Used for photographic (continuous tone) images. Unlike GIF files the JPEG format can take advantage of the full spectrum of colors available to your monitor. The JPEG format also uses compression for smaller files and faster downloads. However, unlike the compression method used in GIF files, the JPEG compression is "lossy" which means it discards data in the process. Once a file is saved in JPEG format the data is permanently lost. If you want all the image data available for future use, save the image using no compression or "lossless" compression and make JPEG copies from it. Joint Photographic Experts Group (JPEG) format is commonly used to display photographs and other continuous-tone images in hypertext markup language (HTML) documents over the World Wide Web and other online services. JPEG format supports CMYK, RGB, and Grayscale color modes, and does not support alpha channels. Unlike GIF format, JPEG retains all color information in an RGB image but compresses file size by selectively discarding data.

A JPEG image is automatically decompressed when opened. A higher level of compression results in lower image quality, and a lower level of compression results in better image quality. In most cases, the Maximum quality option produces a result indistinguishable from the original.

PNG

Developed as a patent-free alternative to GIF, Portable Network Graphics (PNG) format is used for lossless compression and for display of images on the World Wide Web. Unlike GIF, PNG supports 24-bit images and produces background transparency without jagged edges; however, some Web browsers do not support PNG images. PNG format supports RGB, indexed-color, grayscale, and Bitmap-mode images without alpha channels. PNG preserves transparency in grayscale and RGB images.