

Glossary

Image File Formats



Glossary of File Formats and Imaging Terminology

JPEG: stands for “Joint Photographic Experts Group.” It’s the most common format for storing digital camera photographs or scanned images. It is a “lossy” compression format, meaning it shrinks the files by discarding the information that the human eye cannot perceive. JPEGs are widely supported and used on the web, for example when sharing images through email. They have several compression level options.

TIFF: stands for “Tagged Image File Format” and is one of the most widely supported file formats for storing bit-mapped images on personal computers (both PCs and Macintosh computers). TIFF files can be any resolution, and can be black and white, gray-scaled, or color. Used for high-quality images (lossless compression). TIFF format is widely supported by image-manipulation applications such as Photoshop by Adobe.

GIF(F): stands for “Graphics Interchange Format.” A bit-mapped file format used for graphics as opposed to photographic images. GIF supports 8-bit color (maximum of 256 colors, compared to JPEGs 16 million colors.) They are widely used on the Web because the files compress well. GIFs include a color table including the most representative 256 colors used. Not recommended for files with a lot of color shading!

PNG: stands for “Portable Network Graphics.” PNG files contain a bitmap of indexed colors and use lossless compression. They are similar to GIF files, but differ in that they do not have copyright limitations. PNG files are typically used to store graphics for web images and also have the ability to preserve transparency.

PDF: stands for “Portable Document Format.” PDF files are most appropriately used to encode the exact look of a document in a device-independent way. While the PDF format can describe very simple one page documents, it may also be used for long, complex documents that use a variety of different fonts, graphics, colors, and images. PDFs let you capture and view robust information — from any application, on any computer system — and share it with anyone around the world.

Compression: the process of making image files (and other types of files) use less storage space by removing information that our eyes can’t see. JPEG is the most common form of compression. Low compression will contain less visible flaws (or “artifacts”), but will be a larger file than one that is compressed at a higher level.

Pixel: short for “picture element”, it is the smallest building block of an image. The number of pixels that a camera or scanner captures determines the **resolution** (the size of the image, e.g. “640 x 480,” which is the resolution of a standard TV screen.