Common Image File Formats

There are numerous image file types out there so it can be hard to know which file type best suits your image needs. Some image types such a TIFF are great for printing while others, like JPG or PNG, are best for web graphics.

The list below outlines some of the more common file types and provides a brief description, how the file is best used, and any special attributes the file may have.

TIFF (.tif, .tiff)

TIFF or Tagged Image File Format are lossless images files meaning that they do not need to compress or lose any image quality or information (although there are options for compression), allowing for very high-quality images but also larger file sizes.

Compression: Lossless - no compression. Very high-quality images.
Best For: High quality prints, professional publications, archival copies
Special Attributes: Can save transparencies

Bitmap (.bmp)

BMP or Bitmap Image File is a format developed by Microsoft for Windows. There is no compression or information loss with BMP files which allow images to have very high quality, but also very large file sizes. Due to BMP being a proprietary format, it is generally recommended to use TIFF files.

Compression: None
Best For: High quality scans, archival copies

JPEG (.jpg, .jpeg)

JPEG, which stands for Joint Photographic Experts Groups is a “lossy” format meaning that the image is compressed to make a smaller file. The compression does create a loss in quality but this loss is generally not noticeable. JPEG files are very common on the Internet and JPEG is a popular format for digital cameras - making it ideal for web use and non-professional prints.

Compression: Lossy - some file information is compressed or lost
Best For: Web Images, Non-Professional Printing, E-Mail, Powerpoint
Special Attributes: Can choose amount of compression when saving in image editing programs like Adobe Photoshop or GIMP.

GIF (.gif)

GIF or Graphics Interchange Format files are widely used for web graphics, because they are limited to only 256 colors, can allow for transparency, and can be animated. GIF files are typically small is size and are very portable.

Compression: Lossless - compression without loss of quality
Best For: Web Images
Special Attributes: Can be Animated, Can Save Transparency

PNG (.png)

PNG or Portable Network Graphics files are a lossless image format originally designed to improve upon and replace the gif format. PNG files are able to handle up to 16 million colors, unlike the 256 colors supported by GIF.

Compression: Lossless - compression without loss of quality
Best For: Web Images
Special Attributes: Save Transparency

EPS (.eps)

An EPS or Encapsulated PostScript file is a common vector file type. EPS files can be opened in many illustration applications such as Adobe Illustrator or CorelDRAW.

Compression: None - uses vector information
Best For: Vector artwork, illustrations
Special Attributes: Saves vector information

RAW Image Files (.raw, .cr2, .nef, .orf, .sr2, and more)

RAW images are images that are unprocessed that have been created by a camera or scanner. Many digital SLR cameras can shoot in RAW, whether it be a .raw, .cr2, or .nef. These RAW images are the equivalent of a digital negative, meaning that they hold a lot of image information, but still need to be processed in an editor such as Adobe Photoshop or Lightroom.

Compression: None
Best For: Photography
Special Attributes: Saves metadata, unprocessed, lots of information