
Graphic File Formats - What's The Difference Again?

You've probably noticed that graphic/image files you use in your documents and on your web site have a variety of file extensions or formats associated with them. Sometimes it's difficult to figure out why one is a GIF and another JPEG and a third a TIFF and what the differences are to viewing by your customers and partners. Following is a brief overview of some of the more common graphic file formats - and where they're best utilized in your print publications or on your web site.

GIF

GIF stands for Graphics Interchange Format and was developed by CompuServe in 1987. GIF formats support up to 8 bits per pixel and 256 colors using LZW compression (a form of lossless compression that works by finding repeated patterns within an image. When the pattern is repeated a lot, the compression is better.) GIF formats are often used in icons and line art due to the fact that they have large sections of one color (a pattern repeated very often).

GIF graphics can be created in two ways and come in two formats:

- *Consecutive creation* – stores from top to bottom.
- *Interlaced creation*– stores every 8th row, then 4th row, etc. Interlaced formats are good for web sites because they download immediately (although not totally in focus until the entire image is present).
- *GIF87a* – the “standard”, original GIF format.
- *GIF89a* – the format that includes transparency and interlaced graphic creation.

PNG

When CompuServe and Unisys decided to charge royalties for use of the GIF format, a group of developers came up with the PNG format or Portable Network Graphics. PNG supports “true color” – 48 bits per pixel – and is designed to work

with 24-bit graphics cards. PNG, like GIF, supports interlacing as well and is utilized in much the same way as GIF format graphics.

JPEG

The JPEG format was originally created as a way to compress digital photographic images. JPEG formats support 16 million colors and includes the ability to adjust the level of image compression.

TIFF

TIFF or Tagged Image File Format is best used in professional graphics that include large images or multi-image files. TIFF formatted files do not store data in any particular order. Graphics programs instead, follow references within the file to locate the data required to produce the image.

PCX

The PCX format was created by ZSoft Corporation. It, like the TIFF format is best used for graphics such as line art, but its format is somewhat less complex than that of TIFF.

BMP

BMP (bit map) is a Microsoft graphics format that is (surprise!) viewable only by other systems utilizing Windows, DOS or OS/2 operating systems.

PICT

The PICT format is Apple's BMP. It is used by the Macintosh OS to transfer graphics between Macintosh-based applications.

There are other graphics formats that you'll see on your system or when using a graphics-specific application. They include:

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- PSD – Adobe Photoshop
 - CLP – Windows Clipboard
 - PCD – Kodak Photo CD
 - RAW – Raw File Format
 - CDR – Corel Draw
 - CGM – Computer Graphics Metafile
 - DRW – Micografix Drawings
 - EPS – Encapsulated Postscript
 - AI – Adobe Illustrator
 - WMF – Windows MetaFile
 - DWG – AutoCad
 - FHx – Freehand
 - TGA – Targa.

However, when constructing a document or building a web site, we believe the most important thing to remember is that it's best to choose a format that can be viewed by "all" users and is the one best suited for the particular image or use. TIFF for high-end illustrations, GIF, PCX and JPEG for the web and print as well.