

TechLines

Technical Information Sheet

EPP8

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Electronic file formats and file compression

Supported image formats

Tiff (Tagged-Image File Format) is used by page layout programs and different computer platforms. Tiff formats are able to be colored in CMYK, RGB and Grayscale colors. Photoshop and most scanners can produce a Tiff file. *Also known as Raster Graphics.*

EPS (Encapsulated PostScript) can be used when creating both vector and bitmap files. Adobe Photoshop, Adobe Illustrator and page layout programs, such as Adobe InDesign, QuarkXPress, can handle EPS files. EPS files can be colored in CMYK, RGB, Grayscale and Duotone colors.

Unsupported image formats

Gif (Graphics Interchange Format) is a "house brand" image file format of the CompuServe on-line information service. Most image-editing programs can now read and write GIF images but these images should be converted if you want to place them in page-layout or illustration programs. GIF only supports 256 indexed colors and are compressed files which make them useful for web pages.

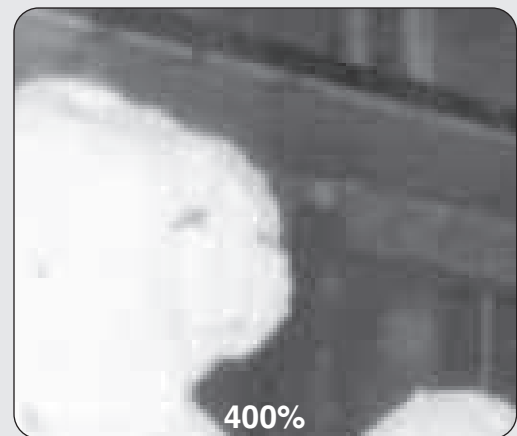
JPEG (Joint Photographic Experts Group) is used to display continuous tone photographs in web pages. Features a much higher compression rate than a GIF file. JPEG files offer millions of colors. When used for print, the graphic will look jagged and bitmapped.

PICT graphics are 72 dpi and not intended for high-end imaging equipment. They are good at compressing graphics that have many solid colors. Pict files can be colored using RGB and Index colors.

PCX graphics are 72 dpi. They are good at compressing graphics that have many solid colors. PCX files can be colored using RGB, Index and Grayscale colors.

RASTER GRAPHICS

Paint programs such as Adobe Photoshop and Corel PHOTO-PAINT create bitmaps which are also known as raster graphics. A bitmap graphic is constructed of pixels. Every pixel is assigned a specific size and color. Bitmap graphics are resolution-dependent. When bitmap graphics are scaled, they lose their original sharpness. Enlarging a bitmap graphic can make it look jagged and blurry. To effectively use a bitmap graphic, it should be scanned at 100 percent and placed into the layout program at 100 percent. When scanning a bitmap graphic, the designer should choose a resolution that will be 1.5 to 2 times the output line screen. This will give the best results.



VECTOR GRAPHICS

Programs such as Adobe Illustrator create vector graphics. Vectors are lines, curves, objects and fills that are created mathematically. A designer is able to scale the vector without losing



quality. This is known as resolution-independent. Type and objects that are to retain their values are best created by vector software.



File Compression

Because of file size and data storage issues, many techniques such as image compression have been developed by software companies. There are two different forms of file compression.

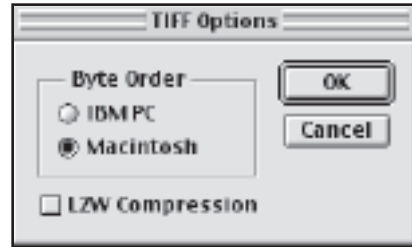
- 1) **Lossless Compression** – compresses images without removing data.
- 2) **Lossy Compression** – compresses images by removing data.

These are the two main forms of file compression that RCP often sees. File compression can be of great use when trying to store files but sometimes causes problems when trying to output them. *If you must compress your files, we recommend that you use LZW compression.*

The diagrams show where to find them in your Photoshop documents for easy removal.

- 1) **LZW** (Lemple-Zif-Welch) is a **lossless** form of compression. It is commonly used in Tiff and PDF file formats.

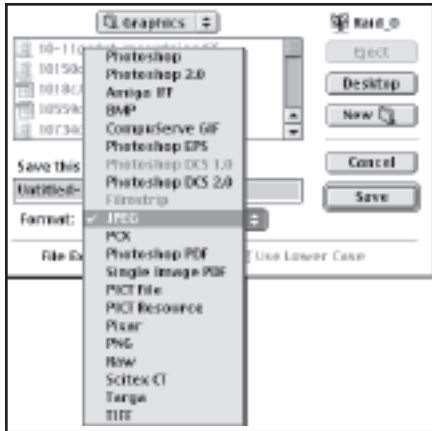
File > Save As > TIFF



- 2) **JPEG** (Joint Photographic Experts Group) is a **lossy** compression.

There are two different ways to save JPEG files in Adobe Photoshop. The first is to save a plain JPEG file. The second is to save an EPS file with secondary JPEG compression.

File > Save As > JPEG



File > Save As > EPS > Preview > JPEG

