

5 Minute Guide...

Digital image file formats

What is a file format?

A File Format is a specific way of saving data so a computer can read it. Image file formats are standardized ways of organizing and storing your digital images. Image files are basically grids made up of pixels - the more pixels, the bigger the file. As you can imagine, image files take up a lot of space! There are several different types of files that save digital images. The most popular are JPEG, GIF and TIFF. The purpose you have planned for the image should dictate which format you use.

Image File Compression

Compression is important because it reduces the size of computer files. Smaller files are faster to transmit over the Internet, and take up less disk space when you save them. There are two kinds of compression used with digital images: lossless and lossy. Lossless compression reduces the image size without actually deleting any information - if image is more important than the size of the file, use lossless compression. Lossy compression digitally looks at an image and determines what can be removed to make the file smaller. Usually, the erased information is not noticed by the naked eye - but be careful - the smaller the file size becomes, the more noticeable the difference will be.

Do file formats have drawbacks?

File formats do not have drawbacks ... problems arise, however, from using the wrong format for your specific need. If you choose to use JPEGs for your archival photos, for example, you will find that the resulting digital image does not provide enough detail to reproduce the item accurately. Conversely, if you use a TIFF image on a website, you will likely find that the website will take a lot longer to load.

What type should I use?

TIFF (Tagged Image File Format): This format uses lossless compression and is most often used for archiving and preservation purposes. This format holds all the data with full colour support. These files are LARGE and require a lot of space, thus they are not practical on the Internet. Because of their detail and complexity, TIFF images are less likely to degrade if migrated to new technology.

JPEG (Joint Photographic Experts Group): Most "point and shoot" digital cameras use JPEG as the default format. You may need to change this depending on your planned use. JPEGs are lossy files that are popular because they download quickly to the Internet. If you want to edit your pictures or enlarge them, it is recommended you begin with a non-lossy format (TIFF) first, then convert it into a lossy (JPEG) format.

GIF (Graphics Interchange Format): GIFs are a good choice if you need to store simple images (such as graphs and diagrams). GIFs only use 256 colours, so they are not suitable for complex images. GIFs can also be saved as animated files.



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did you know?

Digitize using the highest quality you can afford. You can always make your images smaller, but you can't make them bigger!

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How Stuff Works: Digital Photography Basics

<http://computer.howstuffworks.com/question408.htm>

How Stuff Works: Why are my digital photograph files so huge while photos on other websites are much smaller?

<http://computer.howstuffworks.com/question289.htm>

HTML Goodies : HTML and Graphics Tutorials : Web Graphics Tutorial: Image Formats

www.htmlgoodies.com/tutorials/web_graphics/article.php/3479931

World Start: Image File Guide

www.worldstart.com/guides/imagefile.htm