

Explaining File Formats

A look at the logo page you've probably reviewed a billion times by now shows three different file types: tiff, jpg, and png. Which one should you use? Are they interchangeable? Can you take the logo from your website and use it on a brochure?

Let's start with some very general guidelines: if the file is going to be used online, use a jpg, png or gif; if the file is going to be printed, use a tiff or an eps.

But what's the deal with each of these formats? Is one better than the other? They all have their own pros and cons and were created for specific, yet different, purposes. Here's a quick overview of the most common file types you're likely to encounter:



When you take a picture with your digital camera, the original file format is most likely going to be something called **RAW**. RAW files get their name because they're not processed and aren't ready to be printed or edited. They're also really large because they contain all of the original data for the image. Think of them as the digital version of negatives.

The most common digital image format for saving a RAW file is the **JPG**, or Joint Photographic Expert Group. Nearly every digital camera can save images in the JPEG format, making it a popular choice. The important thing to know about this format is that it applies a lossy compression technique to the image, *which means that a lot of information from the original image gets lost in order to make the file smaller*. Since the information gets lost, some

degree of quality also gets lost. Colors aren't as vibrant, lines are less defined, and the image may look grainy or pixelated. JPEG images also suffer from continued degradation when they're repeatedly edited and saved. This means that if you take an original image and save it as a JPEG, the image will lose some data while it's being compressed and saved. If you open that image again to make an edit and save it again, the file will lose additional data. This will happen each time you open and save the image. However, JPEGs aren't all bad. With less information to store the file sizes are typically smaller, making them ideal for use on websites.

If your image has a lot of text, large blocks of color, or is made up of simple shapes you should save it as a **PNG**. PNG, or Portable Network Graphic, was created to replace the GIF, and is the most used lossless image compression format used online today. Lossless compression means that while the image is being made smaller there's no impact on the resolution or quality of the image. PNG images aren't always ideal for final photographs, though, since some programs don't handle them correctly, which can cause the images to be displayed darker than they should be, but they do support transparency and can easily be used on a color background.



GIF, or Graphics Interchange Format, files are still fairly popular web image formats because the image size is relatively small compared to other image compression types. GIF compresses the image by limiting its palette to just 256 colors. This format is perfect for images that contain simple shapes and have few colors, but a full color image might lose a huge chunk of its color data and might not look quite right. GIF files also support transparency, but since the pixels that make up the file can only be either 100% transparent or 100% opaque, you can't apply effects like drop shadows to them. GIF files can also be used to create small, simple animations.

TIFF stands for Tagged Image File Format and is the standard in the printing and publishing industry. The TIFF file format is used to store very large, high quality images, and can be either compressed or uncompressed. Compression in a TIFF does not affect the quality of the image, making it a great format for archiving images you may want to edit in the future.

EPS, or Encapsulated PostScript, is a standard graphics file format that contains any combination of text, graphics, and images. It's perfect for creating drawings like logos or maps. EPS files are mainly used by graphic designers who have special applications capable of creating and manipulating these types of files. EPS files have two main advantages that make them appealing. First, you can break apart an EPS file and just use certain pieces of it without having to recreate anything. Second, text and graphics created as EPS files can be scalable to any size without losing any quality.



Bottom line: there's no one universal image format that's best for all scenarios. Each file format has advantages and disadvantages. Deciding which format to use might require some trial and error experimentation on your part. If you have access to it, Adobe Photoshop has a great feature called 'Save for Web,' which allows you to select the desired output format and see what the results will be. If you don't have that option, you can't really go wrong by saving your web photos as JPEGs, your animations as GIFs, your buttons or icons as PNGs, and your photos for print as TIFFs.

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