The JPG file format, short for Joint Photographic Experts Group, is a type of image compression that works best with photographs and complex images. JPGs use a compression method that removes non-human-visibile colors from images to decrease file sizes. Be careful, though. If you decrease the quality of a JPG too much, you will begin to lose important color information that cannot be recovered.

The JPG file format also allows you to save progressive JPGs, which will load in stages. You may have experienced this before when visiting a website and watching as an image slowly loses its blurriness and becomes clearer.

Use JPGs for product photos, human portaits and other images where color variances are important. Do not use JPGs if you need transparency, which is the ability to see through an image and decipher the background behind it. JPGs do not support transparency.

GIF

A GIF, or a Graphics Interchange Format, reduces the number of colors in an image to 256, from potentially thousands of colors coming from a digital camera. GIFs also support transparency.

GIFs have the unique ability to display a sequence of images, similar to videos, called an animated GIF, which is a series of separate GIF images that are linked together to automatically create motion, or animation.

GIFs, like JPGs, also have the ability to load in segments on web pages. These images, known as interlaced GIFs, tend to be slightly larger than regular GIFs, but they allow a GIF image to be partially visible as it is loading on a web page.

GIFs can be used effectively for limited-color images, such as logos and graphs, or for images where transparency is important. Do not use GIFs for full-color product photos and staff portraits, for example, where color variances are important, as GIF colors are limited to 256.

Although the GIF format is still in use, it should generally be avoided in favor of the PNG format, which does nearly everything better.

PNG

PNGs, or Portable Network Graphics, were created as an alternative to the GIF file format, when the GIF technology was copyrighted and required permission to use. PNGs allow for 5 to 25 percent greater compression than GIFs, and with a wider range of colors. Like GIFs, PNG file formats also support transparency, but PNGs support variable transparency, where users can control the degree to which an image is transparent. The downside to advanced transparency in PNGs is that not all older browsers will display the transparency the same.

PNGs also support image interlacing, similar to GIFs, but PNGs use two-dimensional interlacing, which makes them load twice as fast as GIF images.