

Smooth lines or pixelated edges, which would you prefer to see on your printed material?

I decided to write this mini tutorial because the most common problem for designers today is the misunderstanding of file types.

If you are sending graphics to myself, I recommend that you understand the difference between vector and raster artwork. OK, here's the science bit...

Raster files, top right (enlarged to show pixels), are made up of coloured pixels that together make an image. For example, digital photographs are raster files. When printed at 100% at 300 DPI (dots per inch), raster files print perfectly—showing no pixelation. However, enlarging raster files creates pixelation as seen here.

If you are sending me images such as photographs (raster files) for print, make sure they are at least 300 DPI at 100% of the final size. As a rule of thumb an A4 image@300dpi would be 42MB, an A5 image@300dpi would be 16MB and so on. Be aware that a 72 dpi image, such as those found on web pages will be fuzzy and lacking detail if it were printed on a device requiring higher resolution than your desktop printer, such as commercial printing.

Common raster file types are: .psd, .jpg, .tif, .bmp, .gif or .png

Vector files, bottom right, are made of mathematically drawn vectors. Type in your word processing applications are drawn with vectors. Notice, when you enlarge the type, it does not pixelate. This scalability is the feature that makes vector files preferable to raster files. Another good point is that vector files contain the correct CMYK or spot colour information built into them. All too often a .jpg is usually RGB which when converted to CMYK ruins any colour accuracy.

Also vector files are resolution independent, which means I can easily resize them to reproduce small or a billboard-sized graphic with no loss of quality.

If you are sending a logo or graphic for print, please send vector files where possible.

Common vector file types are: .eps, .ai, and .ps



Raster file



Vector file