

What do you mean... image resolution?

“My image looks okay on my screen. Why can’t you use it?”

High resolution. Low resolution. Vector EPS. These all describe the amount of detail in an image. Here we will explain what you need to know to ensure that your images look their best in print.

**WE’RE HERE
TO HELP.**

A quick lesson on Bitmap images

When designing for print, your images must be the **correct resolution** for the size they will be printed. In other words, a resolution setting for **300ppi (pixels per inch)** is required when the image is sized at 100%. If you want your image to print full size on an A4 page, then it must measure 210mm x 297mm AND be 300ppi. Images can be scaled down, but **never scaled up** without significant loss of quality.

Low resolution images are used on **web pages**. This is to keep the file size compact so that they load quickly in a web browser. Images taken from a website, unless they are specifically labelled as a high resolution download, are NEVER high enough quality to reproduce well in print.

As not everyone has the software to measure resolution, a good rule of thumb is to look at the size of your image file in kilobytes or megabytes. A high resolution JPEG image should be **at least 500kb** in size. This is a rough estimate as photos that will be reproduced at a large size will need to be bigger files than ones that print smaller, but an image less than 500kb is unlikely to be fit for print.

If you are unsure about the size of your images, send them to us and we will advise you if any of them are not of high enough resolution to reproduce well. We can also advise whether a **vector image** would produce a better result for you. We’ll explain how vector images work on page 2 of this document.

For further information, including how to set up a press-ready PDF, please visit the **Print** section of our website: www.michaelburbridge.com



High resolution (300ppi) = sharp detail



Low resolution (less than 300ppi) = fuzzy, poor detail

A quick lesson on Vector EPS images

Vector images – sometimes referred to as Vector EPS files – are quite different from bitmap images. Where bitmap images (like JPEG, TIFF, BMP and Photoshop files) are made up of thousands of pixels, vector images are illustrations composed of vector **objects**, each having one or more **paths** which are composed of **line segments** and **anchor points**. If you can imagine a wireframe drawing which is then coloured in, you are seeing **vector** artwork.

Because vector graphics are illustrations which are built on mathematical expressions rather than from pixels, they are **fully scalable** to any size without any loss of detail to the image.

They are commonly used in the construction of logos, which allow one graphic to be used at any size. They can be coloured with **process (CMYK)** or **spot (Pantone)** colours.

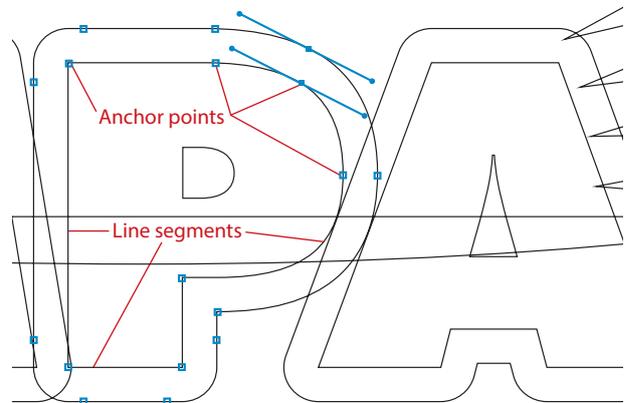
There are instances when working with vector tools and formats is the best practice, and instances when working with bitmap (or raster) tools and formats is the best practice. There are times when both formats come together. An understanding of the advantages and limitations of each technology and the relationship between them is most likely to result in efficient and effective use of tools.

If you can supply your logo as a **vector EPS file**, this will guarantee optimum quality in print. If you supply your logo as a bitmap file, you must ensure that it is of sufficient resolution to reproduce well.

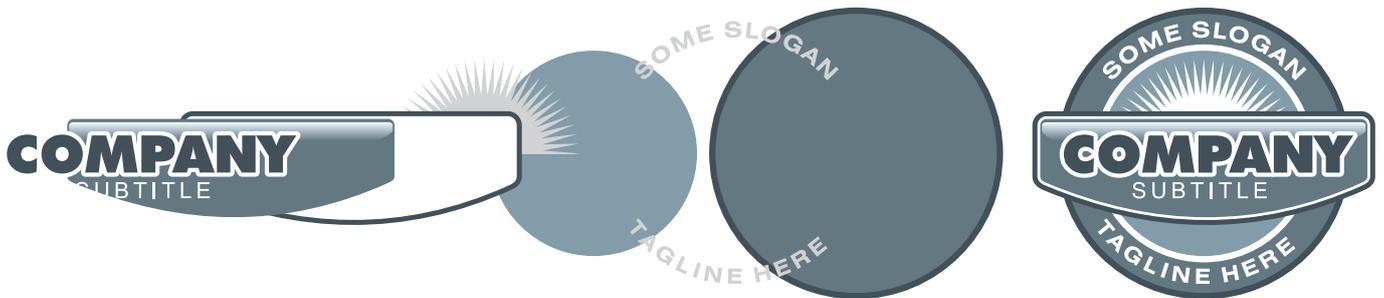
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Vector illustrations are made up of lines, not pixels



Vector objects are drawn using line segments & anchor points



Objects are coloured individually and layered to create a finished illustration that can be scaled to any size.