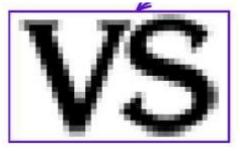
Irvine Royal Academy—Technical Department Graphic Communication—Advanced Higher File Types 1

The different computer file types listed need to be known, as well as their characteristics.

Raster Files

Raster images are constructed by a series of pixels, or individual blocks, to form an image. JPEGs, GIFs and PNGs are all raster images. Every photo you find online or in print is a raster image.

Pixels have a defined proportion based on their resolution (high or low), and when the pixels are stretched to fill space they were not originally intended to fit, they distort resulting in



blurry or unclear images. In order to retain pixel quality, you cannot resize raster images without compromising their resolution. As a result, it is important to remember to save raster files at the exact dimensions needed for the application.



Vector Files

Vector images are far more flexible. They are constructed using proportional formulas rather than pixels.

EPS, AI and PDF are perfect for creating graphics that require frequent resizing. Your logo and brand graphics should have been created as a vector, and you should always have a master file on hand. The real beauty of vectors lies in their ability to be sized as small as a postage stamp, or large enough to fit on a

large billboard or the side of a large lorry!

Resolution

The resolution of a file is measured in dots per inch or pixels per inch. Different resolutions are required for different purposes:

72 dpi Websites and digital screen images

300 dpi Printed papers, etc.

Some printers will specify other resolutions required, for example black and white line drawings for print are often specified to be saved at 600 dpi.

If you copy an image from a website and put it on a page that is to be printed, the chances are the quality will be poor, and the image will look 'pixelated'.

Lossy versus Lossless files

When files are saved, it is often best practice to try to make the file as small as possible. However, this reduces the quality, and sometimes that is a compromise that you don't wish to take. In more recent times, internet speed has improved and this has become less of an issue. A Lossy file could reduce in size by reducing the number of colours saved,

Lossy Files



Lossless Files



