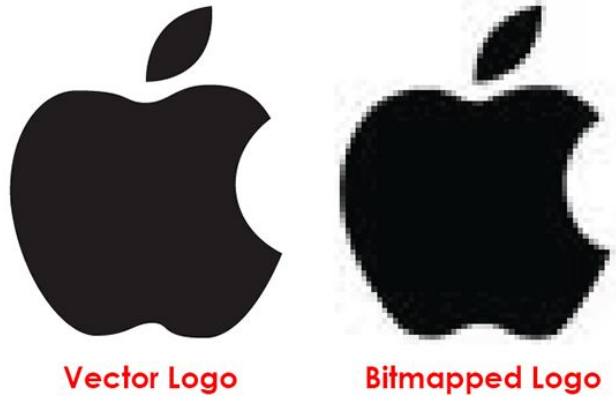


Vector vs. Bitmapped Files

When beginning a project for a customer, we always request logos and artwork be provided to us as **vector files**. Many of our customers only have access to these items as **bitmapped files**. This article will help you understand the difference.



Vector Files

Vector is a synonym for the word “line.” A vector is a shape made of mathematically-generated points, connected by lines, objects, or fills. Because of this, vector art can be infinitely scaled, (larger or smaller), without loss of quality. This is important in the print industry, because logos, text and other artwork need to be scalable to all different sizes. For example, a vector image will have the same quality when printed on a 3” x 5” decal as it will on a large billboard.

A vector created logo is a logo originally created in a vector formatted program, such as Adobe Illustrator. Do not be confused, however, when someone saves a .jpeg or png file as an .eps or .ai file. That does not create a true vector file.

Vector artwork can be saved in file formats such as:

1. Adobe Illustrator (.ai)
2. PDF (.pdf)
3. EPS (.eps)
4. AutoCAD (.dwg/.dxf)
5. TIFF (.tif) - **If that text layer is saved as a SMART OBJECT**
6. Photoshop/Large Document Format (.PSD/.PSB) - **If that text layer is saved as a SMART OBJECT**

Vector information **CANNOT** be saved as:

1. PNG (.png)
2. JPEG (.jpg)

Bitmapped (or Raster) Files -

Bitmapped images, also called **raster images**, are made up of pixels, which are essentially tiny squares. As a general rule, digital pictures and scanned images are bitmapped files. This is where the term “resolution” (also called DPI - or “dots per inch”) comes into play. These pixels are set at a fixed size, depending on the original file size. This explains why higher resolution cameras take better quality images, because each image has more dots per inch.

The downside to bitmapped images is that they are not scalable like vector images, especially when enlarged. Eventually the pixels will become noticeable in the image, and the quality will be compromised. This is the reason we ask for vector logos and artwork for all of our projects.

If you’re not sure if you have a vector or bitmapped file, just ask a graphic designer.