

good design for everyone Since 2007



# curlyred



## Vector versus Bitmap

### A REFERENCE GUIDE



Why are there different types of files\*? What kind of logo file should I have?  
What's the best file type for printing? What's the best logo type for digital purposes?  
Why does my image look fuzzy? We answer all of your burning file-type questions here.

**.EPS**

**.AI**

**.SVG**

**.PDF**

**Vector-based files** are made using mathematics and lines. Each individual line of a vector file is made up of either a vast collection of points with lines interconnecting all of them or just a few control points that are connected using Bézier curves.

File names for vector-based images usually consist of extensions such as .EPS, .AI, .SVG and .PDF. Vector-based files are easily scalable due to their mathematical nature, and never lose resolution, regardless of size. However, they are not good for displaying photo-realistic images because images of this type generally do not contain well-defined shapes and curves.

#### VECTOR-BASED FILES ARE PREFERRED FOR:

- logos and simple-colored graphics (.svg files are used to display crisp branding files digitally)
- identity system pieces (business cards, letterhead, envelopes, etc).
- pieces that are all or mostly text-based
- most signage, apparel, packaging, and promotional items

#### VECTOR-BASED FILES ARE **NOT RECOMMENDED** FOR:

- photography
- bitmap-based artwork

**.PSD**

**.JPG**

**.GIF**

**.TIF**

**.PNG**

**.BMP**

**Bitmap-based files** are a collection of bits that form an image. The image consists of a matrix of individual dots (or pixels) that all have their own color (described using bits, the smallest possible units of information for a computer).

They are not easily scalable because each bitmap-based image is mapped to a non-flexible grid. If a bitmap-based image were to be enlarged, it would lose its sharpness, or become "pixelated."

File names for bitmap-based images usually consist of extensions such as .PSD, .JPG, GIF, .TIF, .PNG or .BMP. In general, bitmap-based files require more computer memory for file storage than vector-based files.

#### BITMAP-BASED FILES ARE PREFERRED FOR:

- photographs •
- any other digital file that contains pixels •

#### BITMAP-BASED FILES ARE **NOT RECOMMENDED** FOR:

- logos and branding files •
- identity system pieces •
- any piece that needs to be enlarged in size •
- most signage, apparel, packaging, and promotional items •

\* Please note, just because a file is saved with a certain extension, it does not mean that extension is accurate.

More questions? Are you realizing you don't have the proper file types for your design needs? Contact us today.

©2016 CurlyRed, Inc. • 410.878.2068 • [kendall@curlyred.com](mailto:kendall@curlyred.com)