

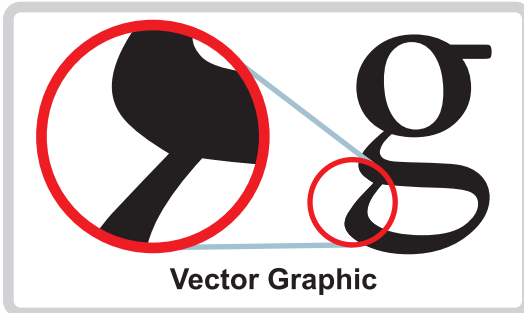


Understanding Graphic File Formats

Vector Graphics vs. Raster Graphics (or Bitmaps)

Vector Graphics

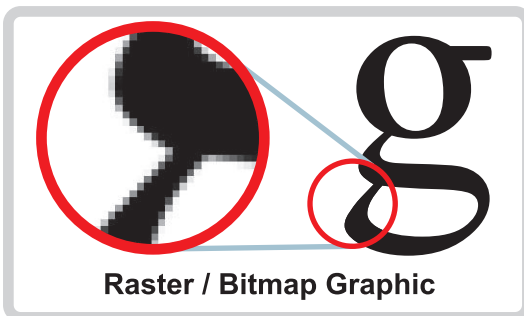
Vector graphics typically are generated using drawing or illustration programs (e.g., CorelDRAW, Adobe Illustrator, FreeHand) and are composed of mathematically-defined geometric shapes. They are easily modified and are not affected detrimentally by enlarging or reducing their size. Because vector



elements are mathematically-defined, scaling simply requires modification of their mathematical locations. Since that all sounds a little intimidating, just keep in mind that vector files are best for your print job. This is why logos and other designs are typically created in vector format — the quality will look the same on a business card as it will on a billboard.

Raster Images or Bitmaps

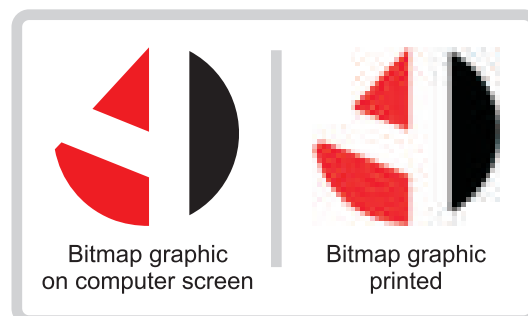
Raster images are produced by digital image capture devices: digital scanners or digital cameras, or by pixel editing programs (e.g., Adobe Photoshop, PhotoPAINT, PaintShop). Raster images are composed of digital picture elements called pixels. Pixels are squares or rectangles filled with a color (see



example to the left). These types of images typically are saved as JPG, GIF, PNG, BMP or TIFF format. Even though a bitmap or Photoshop file can be saved as an EPS, this does not make them a vector file. Raster graphics are impacted by scaling and give the appearance of “stairsteps” as curves of square pixels try to simulate a smooth curve.

Web Graphics Won't Print Well

Bitmaps (jpg, gif, png, bmp, tiff) may look great on the screen or when you see them on the Internet but when they are printed they will have the familiar “stairstep” pattern on the edges of curves as the example to the right shows.



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