

pixels

- A bitmap image is composed of a grid of small squares known as pixels.

Bitmap images are good at reproducing subtle gradations of color, as in photographs. They can show jagged edges when printed at too large a size or displayed at too high a magnification.

The file format best for pixel graphics is TIFF. Tiff files retain all pixel information, with no detail loss as found in other formats like JPEG and BMP.

Below are photos and enlargements to show that pixel based graphics are resolution dependent.

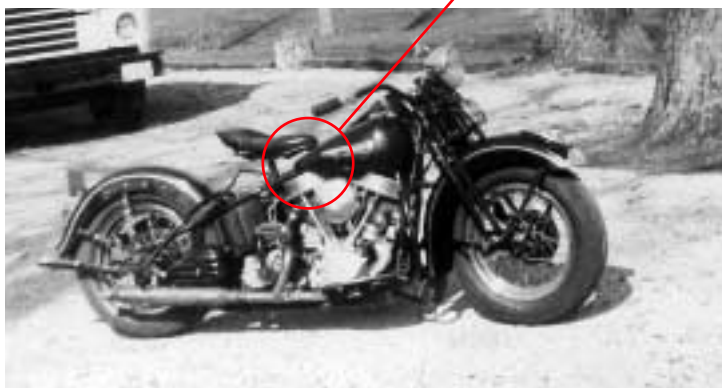
400%



300 dpi



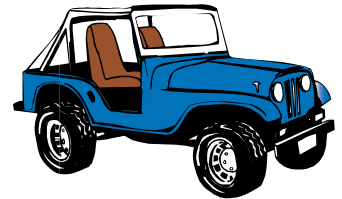
400%



vector

- A vector graphic is defined by mathematical objects called vectors.

Vector graphics are good at reproducing crisp outlines, as in logos or illustrations. They can be printed or displayed at any resolution without losing detail or showing jagged edges. *NOTE: Line art may appear to be a vector graphic; however, it is represented by pixels, similar to photographs, and just has two shades—solid and clear. Line art can also appear to have jagged edges if printed or displayed at too low resolution.*



The file format best for vector graphics is encapsulated postScript – EPS. EPS files are saved in PostScript language which retains the mathematical information, and can be opened and edited if changes are needed. *NOTE: EPS files saved from vector based programs like Illustrator or Freehand are vector based. EPS files saved from image editing programs like PhotoShop are pixel based.*

Below is a vector graphic and an enlargement to show that vector graphics are resolution independent at any magnification.



400%

1200 dpi

