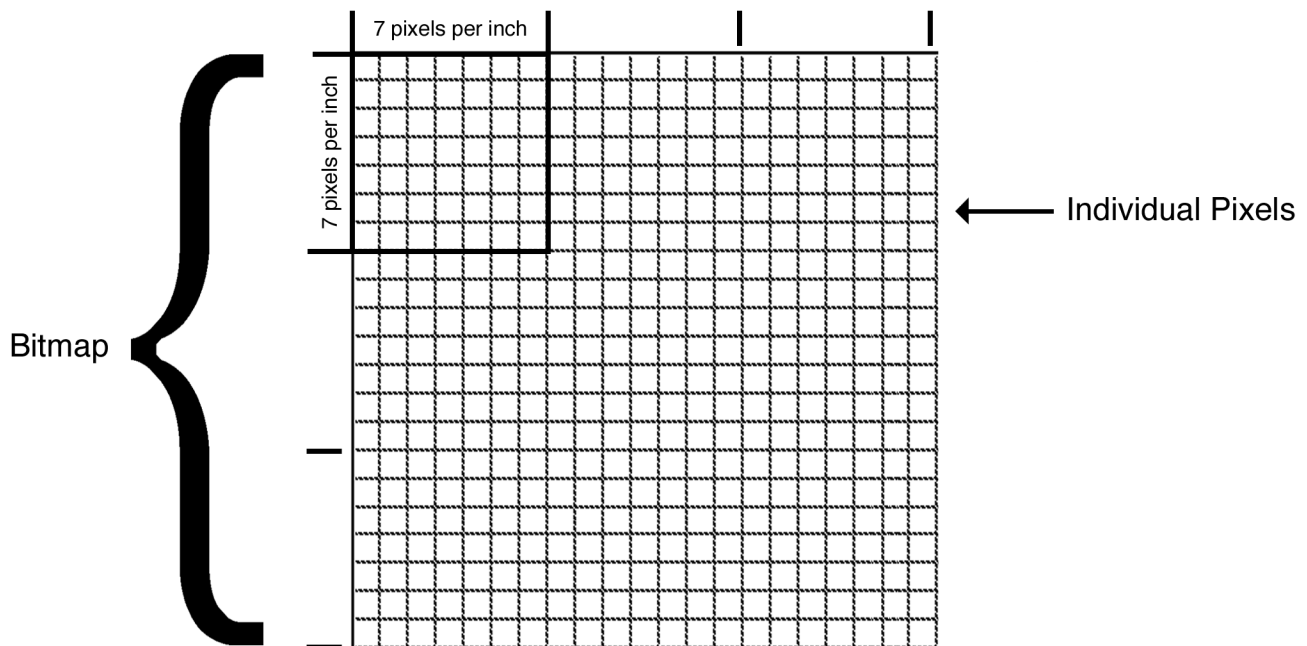


Raster Graphics vs. Vector Graphics

Raster graphics are bitmap images, which means they're basically grids of individually defined pixels. A bitmap is a map array of pixels that can be saved as a file. Currently, the only other way to store an image is as a vector graphic. You can't easily scale bitmap images, but you can control every single pixel and thus achieve many effects impossible in vector graphics. Images that require lots of tonal variations, such as Photographs, look best as Raster information. Common applications that support Raster graphics are Photoshop, Director, and Final Cut Pro.

What are Pixels?

PICture ELeMents or "pixels" are the building blocks of Raster graphics, much like cells are the building blocks of life. Raster graphics are made up of thousands and sometimes millions of small squares called pixels. Pixels are arrayed in larger squares called bitmaps which seen by the naked eye give an illusion of continues tone. Bitmaps are measured in square inches referred to as "PPI" or pixels per inch.



The document or file illustrated above has a Width of 3 inches and a Height of 3 inches. Its resolution is 7 PPI, giving each square inch 49 pixels and the entire document contains 441 pixels. Every Raster-based file will have a predetermined Width, Height and Resolution (or PPI).

Vector graphics produce images using mathematically generated points, lines and shapes that are rendered on a computer. The result is a file much smaller than a bitmap. In addition, a vector file can be resized and manipulated without distorting the image. Solid blocks of color such as text, look best as Vector Information. Common applications that support Vector graphics are Illustrator, Flash and Word.