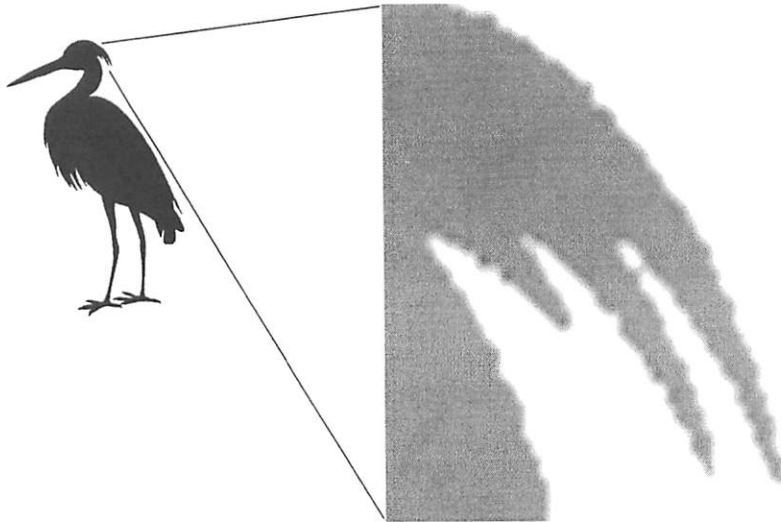


## *Raster vs Vector*

Most clipart images downloaded from the web are jpegs or gifs which are raster images. When those images are enlarged in a document or a poster, the pixels that make up the image will grow in direct proportion to the image.

Ex.



The stair step effect in the illustration at the left is often referred to as the "jaggies." This object has been ghosted to reveal jpeg artifacts. They appear darker or lighter than the rest of the image.

Most graphic artists use the program Illustrator that is part of the Adobe Creative Suite. It is an expensive program that that before 2012 could purchased for about \$1300 on the Web. Now Creative Suite and any of the single elements must be "rented" monthly from the Creative Cloud. However, Word, PowerPoint, and Excel can create a vector image that does not have the "jaggies." A vector image always has smooth edges regardless how large you make the image.



The object at the left has smooth edges. There are no artifacts along the edges either.

A Japanese artist uses Excel to create some amazing vector images. See them at <http://kotaku.com/old-japanese-man-creates-amazing-art-using-excel-wait-499616608>