MANAGING FILE SIZE

MANAGING IMAGES

Pixel-Based Artwork vs. Vector-Based Artwork

Pixel-based artwork (Photoshop), also known as raster or bitmap images, is created with pixel-based programs. They commonly come in formats including jpg, gif, and png and are widely used in web applications. A pixel is the smallest single element on a display device. If you zoom in on a pixel-based image, it will become blurry (or pixelated).

Vector-based artwork (Illustrator), on the other hand, is created with vector software. Vector images are mathematical calculations from one point to another that form lines and shapes. If you zoom in on a vector graphic, it will always look the same.

VECTOR PIXEL

Linked Images vs. Embedded Images

If you're planning on using pixel-based artwork or external images, you have two options to include the artwork in your file: linked images or embedded images.

Embedded images are contained within the Illustrator document at full resolution, being a primary contributor to larger file sizes. Linked images, on the other hand, remain independent of the Illustrator file, therefore keeping file sizes relatively small.

Tips for Linked Images:

- If you're using linked images, be sure to include the original image files when sending artwork to the printer
- If you move or delete a linked image or its folder, you must relink the file in Illustrator

Tips for Embedded Images:

- Crop the image to only include the visible part to keep file sizes to a minimum
- If an update is made to an embedded image outside of Illustrator, be sure to reimport those images after editing them

RESOLUTION

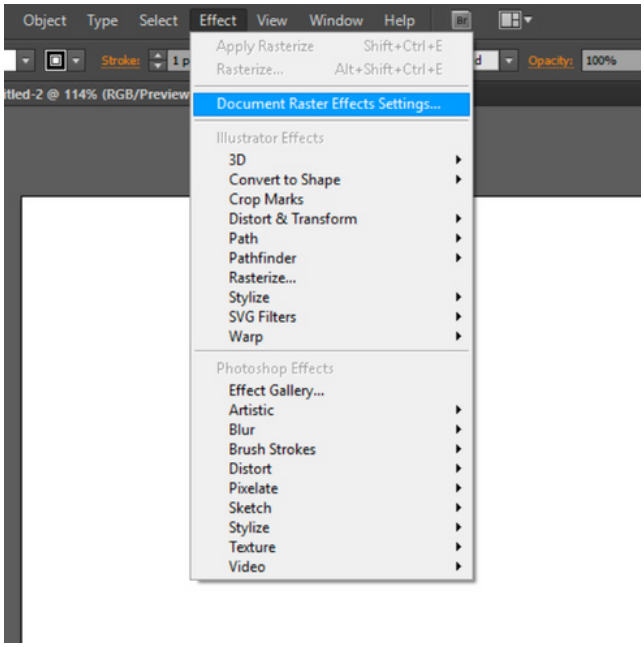
Resolution often comes into play when viewing or previewing artwork. It also becomes a factor when using pixel-based artwork.

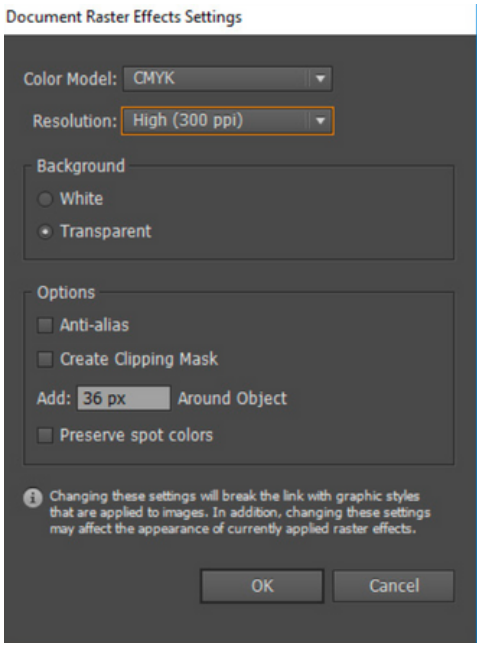
Resolution of Raster Effects

When creating raster images, or in this case, raster effects in Illustrator, the program needs to know how large the pixels should be in the artwork. The higher the resolution (measured in pixels per inch), the larger the file size.

When designing for print applications, it's important to ensure that a minimum resolution of 300 ppi is set. If you find that your Raster Effects Settings are currently set higher than this minimum, there is an opportunity to reduce the resolution to 300 ppi, therefore reducing the file size.

In Illustrator, this is achieved through this path:
Effects > Document Raster Effects Settings





Designing to Specifications

One of the easiest ways to increase file size in Illustrator is to set up a file to be larger than specifications, either in physical or in resolution (PPI). Once again, it's important to ensure that artwork is a minimum of 300 PPI.

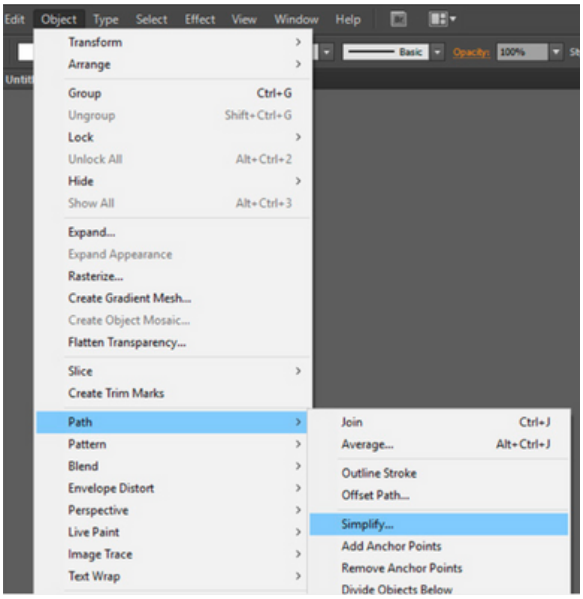
FILE CLEANUP

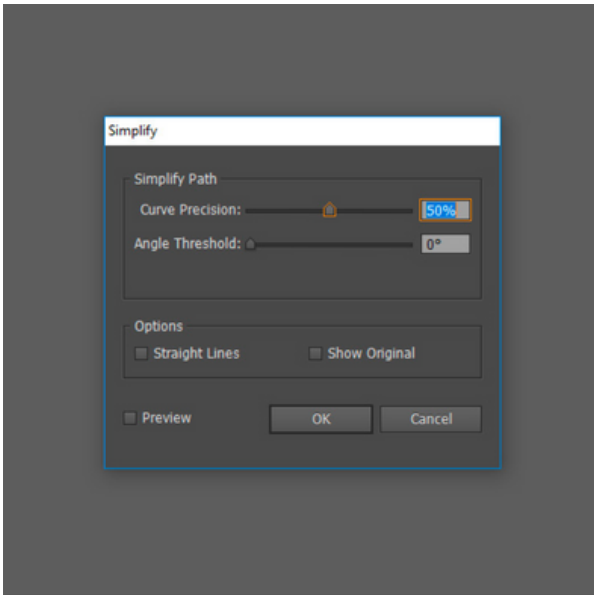
In the process of designing and building artwork, there is often an accumulation of unused resources, including images, swatches, styles, etc. During the design process or before delivering to a printer, all unused resources should be cleaned up.

Remove Excess Points in Vector Artwork

Believe it or not, the more points in a vector file, the larger the size. It is beneficial to consolidate these points or remove excess points throughout the design process by simplifying the path. This can be done by:
Object > Path > Simplify

There are also programs that exist that can assist with the reduction of excess points in vector artwork.





Reduce the Number of Steps of Blend Objects

Blending objects in Illustrator can create and distribute shapes evenly between two objects. By default, Illustrator calculates the optimum number of steps to create a smooth transition. However, you can also control the number of steps or distance between steps by setting blending options:
Object > Blend > Blend Options

Be sure to choose a number of steps that doesn't lead to a significant decline in the quality of the object blend.