

Imaging Pittsburgh Project - Image Quality Guidelines

Overview:

Master archival images should be TIFF RGB 24-bit files measuring at least 3000 pixels on the long side.

Resolution:

This is determined by the size of the original, the intended size of the output, and the resolution required for the chosen output method. You start by determining the estimated output resolution for the printing method(s):

- ink jet printer: 200 to 300 dpi
- dye sublimation printer: 300 dpi
- digital silver halide printer: 300 dpi
- halftone at 133 line screen: 266 dpi
- halftone at 200 line screen: 400 dpi
- film recorder: 4000-8000 dpi

The file size you need is the output resolution, in pixels, multiplied by the intended size, in inches, of the output. So, to make an 8x10 silver halide print (requires 300 dpi), your file has to have 2400 pixels (8 inches x 300) x 3000 pixels (10 inches x 300). To arrive at this file size, you have to figure in the actual size of the original, and account for any cropping you intend to do.

If the original is 8x10, you need a scan resolution of at least 300 dpi.
If the original is 4x5, you need a scan resolution of at least 600 dpi.
If the original is 2x3, you need a scan resolution of at least 1200 dpi.
If the original is a 35 mm slide, you need a scan resolution of at least 2400 dpi.

The file sizes of each of these scans will be roughly the same.

Color Bit Depth:

Some of the output options listed above require RGB (24-bit) files as opposed to Grayscale (8-bit) files, including digital silver halide printers and film recorders. If you want to preserve the option of using these output methods in the future, you have to have an RGB file. On the other hand, you can convert a grayscale file to RGB later in Photoshop.