

## Edit the Image

### Image Types

It is important to use the correct image types in your document. Some output devices cannot support certain types, such as JPEG compressed, and should therefore be avoided. There are basically only two kinds of images: vector drawings and rasterized images. A vector drawing, such as an Illustrator file, is comprised of postscript commands, in other words actual printer instructions that allow the printer to draw smooth curves and to render text brilliantly. Vector drawings can also be virtually scaled to any size or rotated at any angle with little loss of quality. On the other hand, rasterized or pixel-based images are comprised of raw data, sort of like rows and columns of "dots" that need to be plotted into the given spatial area. Scaling or rotating such images often results in undesirable printouts. A photograph can be converted successfully into a rasterized image, something a vector drawing (lines and curves) could never compete with, but you also wouldn't want to mess around with altering the transformation of the photo image (scale, rotation or skew) as you could with the vector drawing. So, it's important to decide early on which types of images you will be using to construct your documents.

### Image Modes

For rasterized pixel-based images, the kind of mode to use becomes very critical in predicting the quality of the final output. RGB images always pose a problem when they need to be converted to CMYK because the amount of Black to use for the K channel is not always very straight forward. The algorithms employed to calculate the amount of Black varies from printer to printer. For this reason, it is generally recommended that you avoid using RGB images, especially when you intend to print separations. In this case, you may need to take the image back into the application which created it in order to switch the mode from RGB over to CMYK.

### Image Resolution

FLIGHTCHECK® has a very important feature of comparing the image resolution (dots per inch) to the output line screen (lines per inch). It is a commonly accepted fact that the image DPI should always be between 1.5 to 2.0 times the LPI. For example, if the LPI is 150, the image DPI should be between 225 and 300. Lower resolutions cause an undesirable printout due to the fact that a lesser amount of data will be "stretched" into a larger spatial area. Higher resolutions do not even gain in quality due to the fact that the image will only be printed using a specific amount lines per inch (LPI). Therefore, FLIGHTCHECK® can be relied on to inform you when the image resolution does not fall into the allowable range.

### Effective Resolution

When an image is scaled, a new resolution (dots per inch) needs to be calculated. This is called the "effective resolution" and FLIGHTCHECK® will compare this value with the output line screen in order to determine whether or not the scaling will be acceptable or not, or if the image needs to be returned to the imaging application, or rescanned, in order to place the image in the document at 100%.