

Optimizing your file for newsprint.

When preparing your files there are certain things to watch out for to insure the best quality on press. Listed below are a few tips along with other useful information about the newsprinting process.

Images

1. Screen Frequency (100 lpi) & Image Resolution (200 dpi):

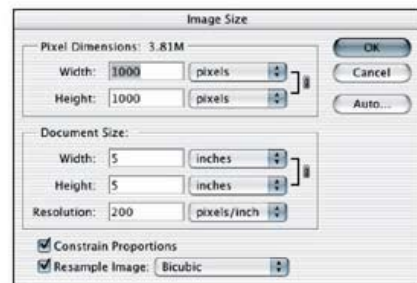
Raster images are created with pixels. Each pixel is assigned a specific location and color value. Enlarging these images can greatly affect quality. (Photoshop creates raster images).

Plates are produced at 100 lpi / 1270 dpi. The resolution of an image needs to be at least 1.5 to 2 times the screen frequency resulting in a 150 dpi (minimum) to 200 dpi (preferred) at full size.

Note: Resolution higher than 200 dpi will not significantly improve the quality of the image, but will result in a much larger file size.

Line art should be 600 dpi.

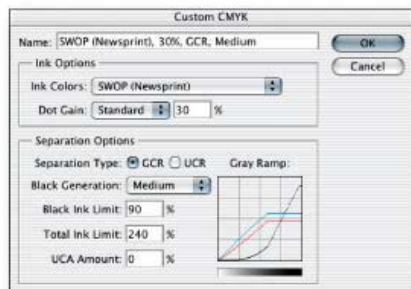
Vector images are created with mathematical formulas and can be enlarged without affecting print quality. (Freehand, Illustrator and CorelDraw create vector images).



Adobe Photoshop 7.0

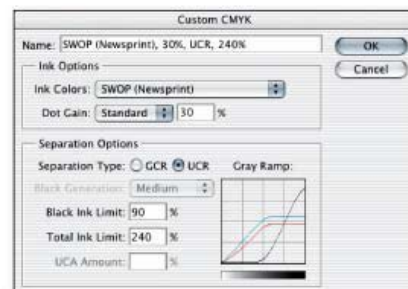
2. Generating Separations - Grayscale, CMYK, Spot:

In Adobe Photoshop there are basically two ways of separating color: Undercolor Removal (UCR) and Gray Component Replacement (GCR). These settings can be found in the Color Settings dialog box. The main difference in the two settings is how the black plate is affected when converting files from RGB to CMYK. We recommend that you use one of these two settings:



Adobe Photoshop 7.0

OR



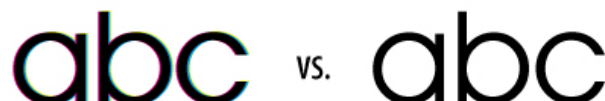
Adobe Photoshop 7.0

Grayscale Images - make sure that images that are meant to print black or grayscale are truly built as a grayscale file. On screen an image may appear to be black, but if it is in CMYK mode it may take all four plates to create that color. This is called a rich black and can create two problems on the press:

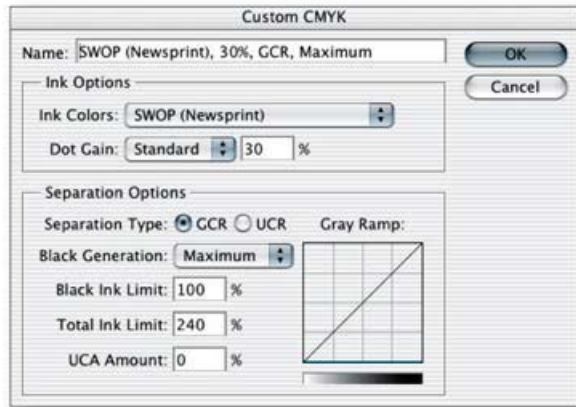
1) tracking - if the ink density is too high then the image may track to other pages throughout the book when the paper touches on press

2) registration - if registration is off slightly, you may see a halo of color around the image

Example:



Now, if you have an image where parts of it are color, therefore cannot be grayscale, there is a trick in Photoshop that can easily take the color out of just the black elements.



Adobe Photoshop 7.0

Go into the Color Settings dialog box, listed on the previous page, and change the black generation to GCR/ Maximum Black. Click OK. Change the color mode of your image to RGB. Then, change it back to CMYK.

By doing this, Photoshop converts the high ink density areas to a solid black instead of a build of all four plates.

Note: Make sure that you switch the Color Settings back to your original settings, listed on previous page, for all other images.

CMYK Images - The press uses four plates to produce full color images: Cyan, Magenta, Yellow and Black. We recommend that all color images be CMYK rather than RGB. This will give you more control of your images and let you see a better representation on your screen.

3. Dot Gain:

Dot gain on press should be compensated for in Photoshop for your color and grayscale images. Setting up Photoshop with the color settings explained above will help you view a closer representation on screen. Setting it to SWOP Newsprint with a 30% dot gain affects how dark the images appear.

Other things to watch out for...

1. Lines should be at least .25 points thick or they may not show up on plate.
2. Stay away from small or thin type if it knocks out of color because it may fill in due to dot gain.



3. If you are using .eps files within your document, make sure that fonts are embedded or converted to curves.
4. Yellow can be hard to read by itself when printed on newsprint so we suggest adding a 10% magenta unless the yellow is on top of another color.

Example of 100% Yellow VS. Example of 100% Yellow / 10% Magenta

5. If you are choosing a spot color out of a pms book, do not use the top three colors because they require a mix of 50% white or more which will result in light ink and the ink coverage will not print evenly throughout the book.
6. When using background screens with type that is black or the same color as the screen, the screen should be a maximum of 30%. If the screen is darker than a 30%, the type may be hard to read. Screens should be a minimum of 10%, because anything lighter may not show up as much as you'd like.

