

Fixing TAC in Images using Photoshop

This document describes a recommended process for handling images which will ensure that unusually high ink densities are brought into the range that is acceptable for printing.

You can take advantage of 'color profiles' in Photoshop to apply tone curves to images, thereby reducing heavy ink densities. First, you should check the color settings in Photoshop to ensure that you have the appropriate profile selected. In recent versions of Photoshop, go to 'Edit > Color Settings' (the 'Color Settings' function is under the 'Photoshop' menu in older versions of the software).

At the top of this 'Color Settings' window, in the 'Settings' pull-down menu you should have at least one of the following options:

- North America General Purpose 2
- North America Prepress 2
- U.S. Prepress Defaults

Choose one of these from this menu; doesn't matter which.

Next, there is a maximum 'TAC' number representing the upper limit of allowable ink density for your files, based on the paper stock you're printing on (the text and cover stocks are usually different, check with your printer). That number will normally be between 260% and 300% (TAC percentage is the sum total of CMYK percentages). If you are printing on a 300 TAC paper, you don't need to make any more changes to the Color Settings dialog, and you can close it. If you are printing on a 260 TAC paper, you want to change the 'CMYK Working Space' to the 'U.S. Web Uncoated v2' profile.

Color Mode Conversion

RGB images

Now that you have the appropriate color profile set, whenever you convert an RGB image to CMYK in Photoshop (Image > Mode > RGB Color), the profile will keep the ink amounts within the desired range.

CMYK images

To reduce heavy ink coverage on CMYK images, you can convert to RGB mode, then back to CMYK; this will apply the profile 'curve', and attenuate the heavy ink amounts.

NOTE: If the ink coverage on the original image was unusually high, you may see a bit of color shifting occur in the conversion. If the color shift is undesirable, you can tweak the color to your liking, but you should perform the CMYK>RGB>CMYK conversion again after tweaking the image to ensure compliance with TAC limits.