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Colour Management Setup 101



Colour management offers great rewards to those that embrace it - but all too often colour management is disengaged before those rewards are achieved. The rewards of implementing the basics of colour management can be significant:

- Greater accuracy to predict how an image will reproduce on press.
- The ability to use a desktop or wide format inkjet printer to create accurate proofs showing how the job will print on a press.
- The ability to move images from workstation to workstation and maintain a visual match.

And best of all, to save money and time by reducing re-runs and materials.

With so many advantages, why do so many print shops and designers turn off colour management in Photoshop and Illustrator? I believe it is fear of change; fear that colour management may incorrectly modify the data and fear of not completely understanding what colour management is doing.

So let's begin with the basics. A solid foundation is very important when introducing a new workflow. The following is a no risk change. At no stage are we changing the pixel values of any images. But we are changing how Photoshop and Illustrator will interpret those pixels and vectors.

The following is a Quick-Start Guide for implementing the basics of colour management. As with all things, there is no one fix for all problems and I'm not suggesting that by implementing these four steps that the Holy Grail of colour matching will be achieved. The following is a foundation for colour management. It is an excellent start. If you are genuine about learning more on this exciting topic, you could purchase the book: "Real World Color Management."



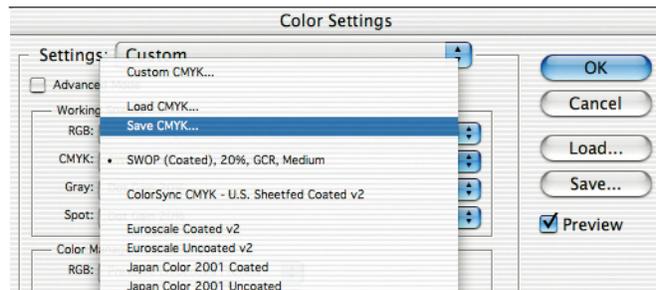
Step One: Calibrate and profile your monitor. You have two options. You can use Adobe Gamma/Display Calibrator and your eyes to create a mediocre profile, which is better than doing nothing. Or you can purchase one of two products to calibrate your display that utilize a suction cup device: ColorVision's OptiCAL or GretagMacbeth's i1 Display.

Step Two: In order to take full advantage of all the options in colour management you need to be working with Photoshop 6 or higher and version 10 for Illustrator. Illustrator 10 now allows you to embed a profile in a vector image.

Step Three: Set your Color Settings to U.S. Prepress Defaults in all Adobe programs. This will invoke the U.S. Web Coated (SWOP) v2 profile as your CMYK working space. If most of your work is destined for a Sheetfed press, then use the U.S. Sheetfed Coated v2 profile instead.

Step Four: When saving images, always embed the profile. This allows the receiver to view the image as you intended. It does not alter the data in any way. There are no negatives to embedding a profile, except that it adds a few kb to the file size.

Once you invoke colour management you need a plan to deal with all the images you saved without embedding a profile - your legacy images. In this case you have to assign a profile to these images when you re-open them in Photoshop. Keep in mind that assigning a profile to an image does not alter the values of any pixel, but it does give Photoshop the correct information so it can accurately display the image. Assigning gives meaning to the pixels.



To assign a profile to an image you first need to know how the image was originally saved. What working space was used to create the image? If you originally set Photoshop at its defaults, you would have used the U.S. Web Coated (SWOP) v2 profile. If this is the case when you open an image in Photoshop and you see the dialog box saying, "This image does not have an embedded profile," you can assign U.S. Web Coated (SWOP) v2. When you save the image be sure to embed the profile and from that point on the document will have the correct profile assigned to it.

If you created a Custom CMYK setting, open Color Settings in Photoshop, recreate that Custom CMYK and click OK. Now, while you are still in the Color Settings dialog box, select the CMYK pull down menu again and select Save CMYK. By doing this you are saving a traditional CMYK separation table as an ICC profile. This can be used when you open your legacy images (older images) and you get the no embedded profile dialog box. Just assign the newly created profile and Photoshop will correctly display the image.