Gamut

The Colour Management Newsletter

Colour Management Workflow Setup | **02**

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Setting up an Accurate Colour
Management Workflow

Today's digital sympathizers are faced with the challenge of wearing many different hats. Not only are they responsible for scanning, digital capture, colour correction, RGB to CMYK separations, colour management, in-house proofing but also content creation. In this article we are going to explore some of the things that can make this job a bit easier. So what steps can we take to ensure that the images we work with are going to reproduce as we had hoped?

Environment:

One of the most overlooked and yet still very important areas is that of your working environment. A first step is to reduce your ambient lighting (room lighting). Turn off all overheads or put them on a dimmer. Use task lights such as a small halogen light and point it so it is reflecting off the walls. Ideally you want no sunlight to enter the room, as this will change the intensity of the lighting over time. Constancy is the key. We want to create an environment that will be the same at 10:00 am, 2:00pm or even at 11:00pm.

Look at the walls surrounding the area where you are doing your colour critical work. Are they painted with a bright colour? Our perception of colour is greatly influenced by surrounding colours. If the walls around you are too colourful, paint them gray. The recommended colour is a neutral gray with a 60-percent reflectance. If you are considering bringing your prepress/graphics/photographic department up to ISO standards you should look into ISO 3664 standard. This new standard was approved in March 21st, 2000.

Illumination:

There are a number of vendors selling task lights that are close to the industry standard of 5000K. These task lights are not designed to replace a full size-viewing booth, but if the budget is tight it's good to have an alternative. Solux has a large selection of task lights as well as replacement halogen bulbs (www.solux.net). GretagMacbeth also sells a similar product called the Sol-Source (www.gretagmacbeth.com). Lastly, the Ott-lite, rated at 5500k does not meet the CIE/ISO colour temperature specification but it will be vastly better than most traditional task lights.

If you are working under fluorescent tubes replace them with D50 (5000 Kelvin) tubes from Home Depot (Phillips Natural Light). You should also reduce the intensity of the overhead lights by inserting a sheet of thin black foam core with smaller openings. In order to accurately evaluate your original photo or proof you need some way of illuminating it. Ideally you want to place your print into a D50 (5000 Kelvin) desktop light booth, which has a slider to adjust the intensity of the illumination. This way you can reduce its brightness to match the brightness of your monitor. One option would be the Soft-View (SOFV-1e) Adjustable "Soft-Proofer".
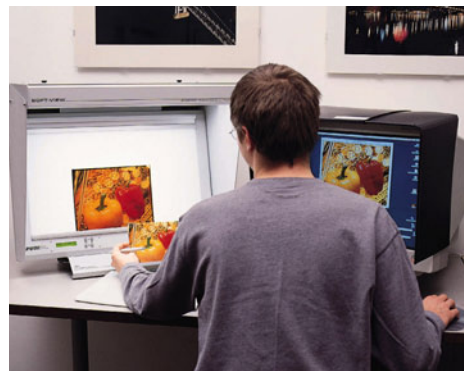
Computer Settings and Hardware:

Set the desktop of your computer to a neutral gray. If you want something that is more exciting go to www.MacDesktops.com and find a gray desktop pattern you can live with.

When purchasing a new monitor look for one that that has user-adjustable RGB "gain" or "white balance" controls. Not all monitors offer this feature, but the ones that do will allow you to hardware calibrate your monitor, yielding a much better match to print.

Calibrate your monitor with a colourimeter. Avoid eyeballing with Adobe Gamma. The eyeball method will not remain consistent over time, as the subjectivity of your eyes will be influencing the process.

One pitfall I have seen on occasion is that the software/hardware calibration program responsible for creating your monitor profile says, "Your new profile has been set as the default monitor profile" but is does not actually do it. Be sure to double check that the new profile has been properly set. On the Mac this can be found at Apple>Control Panel>Monitors select color button and on Windows Start>Settings>Control Panel, double click on Display, then select Settings>Advanced>Color Management. You should see your newly created monitor profile selected as the System Profile. If not click Add, select your new monitor profile and then click, set as Default.

Photoshop colour management setup:

The most important thing to do is dump Photoshop 5.5 and move up to version 7. The ability to set your RGB Working Space to something other than your monitor profile has very positive implications. A working space such as Adobe RGB (1998) is not device dependent. What this means that is that if you have more than one computer, both with accurate monitor profiles and both using Adobe RGB, you will have a visual match on both.

Scanning and Digital Photography:

Scan or capture all images into the Abode RGB (1998) colour space. Convert to CMYK within Photoshop using the profiles such as U.S. Sheetfed Coated v2 or U.S. Web Coated (SWOP) v2 using Relative Colorimetric. To make things simple, select the U.S. Prepress Defaults in settings within Colour Settings when using Adobe Photoshop 6.0 or higher. To gain consistency in other Adobe products such as Illustrator and InDesign be sure to select the same colour management settings within each program.

If your scanning or if your digital capture software allows for it, set the highlight (white) points from 255 to 245 and set the shadow (black) point from 0 to 10. This will ensure that the images you capture retain all the detail of the original.

Suggestions for Monitors and Calibration:

If you are considering a new monitor, take a look at the Sony Artisan Colour Reference System. If you require a monitor calibration and profiling package you might consider ICCDisplay from www.ColorMall.com bundled with the Sequal Chroma IV or Monaco OPTIX XR Pro from Headshots. www.Headshotsrentals.com

Digital Output:

Avoid glossy media when producing proofs. These papers are not going to show an accurate representation of how the job will print on press. The best proofing paper will have a paper white that is similar to your press sheets. When buying inkjet media compare it to the paper white of a resent job by lying the two down in a viewing booth to compare. Again choose a proofing media that matches your press sheets white point and relfectance.

The reason for supplying a proof is to show a client a realistic expectation of how the job will be reproduced on press.