

ImageXpress UnTechnical Bulletin

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COLOR MANAGEMENT Input Profiles



Keeping it simple. . . color management means making a picture LOOK the same every time it is seen. . . on computer monitors, over the internet, or on paper. Color management issues can be confusing, and quite difficult to understand.

Before the advent of desktop publishing, the topic of color management was reserved for a small group of highly-educated color scientists and very experienced color separators. Now anyone producing color files must have a basic understanding of the topic. It is the purpose of this series to shed accurate, non-technical light on basic color management issues.

Profiles

A profile is simply an evaluation report. There are several kinds of profiles: input, monitor, and output. Each is a color performance evaluation of a unique device. Profiling assesses the capabilities of a single device so that color pictures captured by (or sent to) that device will address those capabilities, compensate for its inaccuracies, and portray color images as accurately as possible.

Input Profiles

Every time we get our eyes examined by an Optometrist, our eyes essentially get "profiled." The doctor checks certain visual functions, and then based on the results of those tests he prescribes the appropriate strength correctional lenses to compensate for any deficiencies he found in our eyes during his examination.

Input devices differ in their ability to "see" certain colors and tones. Some see quite well, some don't. One thing for sure. . . all of them need "glasses" to one extent or another to correct for small errors in their visual perception. These electronic glasses are called "input profiles."

Just as my prescription glasses will (most likely) not correct your vision, a manufacturer's generic scanner/camera input profile will (most likely) not correct your device's vision.

To carry the doctor metaphor a little further, we perform the vision exam on our input devices using specialized "profiling" software. The exam involves the technical equivalent of an eye chart called an IT8 target. By capturing an image containing this target, we provide the profiling software with the basic exam information. The profiling software then examines the chart and produces a profile (like human glasses) able to correct any visual misconceptions of that device.

Typically, scanners and cameras are not able to see some colors quite as "true" as they should. By carefully measuring the difference between the known color values from the chart and the actual captured values >from the digitally-captured chart, the profiling software is able to correct those colors into what they should be. This correction information is called a profile.

Thus, just as glasses correct our vision from what we actually see, to what we should see, profiles correct the errant vision of input devices. At the conclusion of the profiling process, simply place the input profile into the System's ColorSync folder (essentially, this is the "drawer" where the System stores a number of devices' glasses). Next, download this profile into the scanner driver or camera browser.

Now, from within Photoshop 5, open the Profiles Setup dialog (File:Color Settings:Profile Setup. . .), and choose the appropriate profile from the Assumed Profiles/RGB menu. Make sure you do this before open the image, if you want the profile to correct the image before it shows on the monitor.

Using Input Profiles with ScanPrepPro

ScanPrepPro provides an easy way to use your input profile. Go to SanPrepPro's Preferences dialog and choose your device's profile from the Input Profile menu. This menu lists all input profiles available in the ColorSync folder. ScanPrepPro will automatically load the designated profile and will then be ready for automated stem-to-stern color management workflow.

If the user either doesn't have a profile, or doesn't prefer to use a profile, he can simply choose "None" from the same menu.

When Current Image processing is selected from the Source menu, ScanPrepPro will automatically choose the "None" selection. The next time a scanning scenario is required, ScanPrepPro will again automatically load the profile selection from the Preferences dialog. The default setting for the Input Profile menu is "None."

