

MONITOR CALIBRATION

Monitor calibration is the process of neutralizing any color bias your monitor may have, and then creating a profile of it that allows color to be displayed properly.

Monitor calibration is the first step to getting predictable output in color managed workflow. It is also important to the set-up of Photoshop, allowing images to be displayed correctly on different monitors that have been calibrated to the same standard.

Before calibrating you should look at the environment your computer is in: window light, room light, wall color and monitor background color all can effect the appearance of color on your monitor. Your computer environment should be minimally lit, with neutral walls. Your monitor background should be set to neutral gray. Any changes in your environment require re-calibration of your monitor. To insure consistency your monitor should be calibrated on at least a bi-weekly basis.

There are two ways to calibrate:

- 1. Adobe Gamma or ColorSync software** that uses an established **standard** profile. Adobe Gamma and ColorSync's monitor calibration package are simple to use and are acceptable for most work. Adobe Gamma is included with Photoshop. Set your monitor to: **Millions of colors, 2.0 Gamma, 6500K Color temperature**. If using Photoshop open it and adjust the color settings according to the Photoshop color tipsheet.
- 2. Colorvision hardware/software** package that create a **custom** profile of your monitor using Optical software and the ColorVision Monitor Spyder colorimeter. A custom profile can be established in a series of simple steps. The monitor Spyder attaches to your monitor via suction cup. The colorimeter "reads" the actual output of your monitor, and the software uses this information to create a profile. Colorvision calibration packages are available through Bokland. Contact your Bokland representative to find out more.

COLOR MANAGEMENT

Color management detects and defines how each device (scanners, monitor, printer) in a digital work flow sees color. It uses this information to correct and compensate for the difference in each device. Color management makes printing color accurate, reliable, predictable and repeatable.

Color management is a concept that was developed by the ICC (International Color Consortium) with members including Apple Computer, and Microsoft. Color Sync, developed by Linocolor and Apple Computer is the backbone of color management. Color Sync operates at the system level using profiles, ICC for Macs and ICM2 for PCs.



Profiles are created with color patches and a spectrophotometer. A series of color patches are printed, scanned or displayed, depending on the device to be profiled, and read with a spectrophotometer.

This information is assessed by an application that compares it to a set of predetermined values. The application creates an ICC/ICM2 profile for the device. Color Sync uses these profiles to convert colors, making the appearance of images very similar from device to device.

Example: Scan an image in RGB using the profile created for the scanner. Open the image in Photoshop. Using your monitor's ICC profile, Color Sync displays the image colors correctly. Then print the file using a profiled printer. Color Sync converts the file so that the output of the printer will match what you see on your monitor.

Color management can be applied to any input or output device. The first step is calibration and profiling of your monitor.

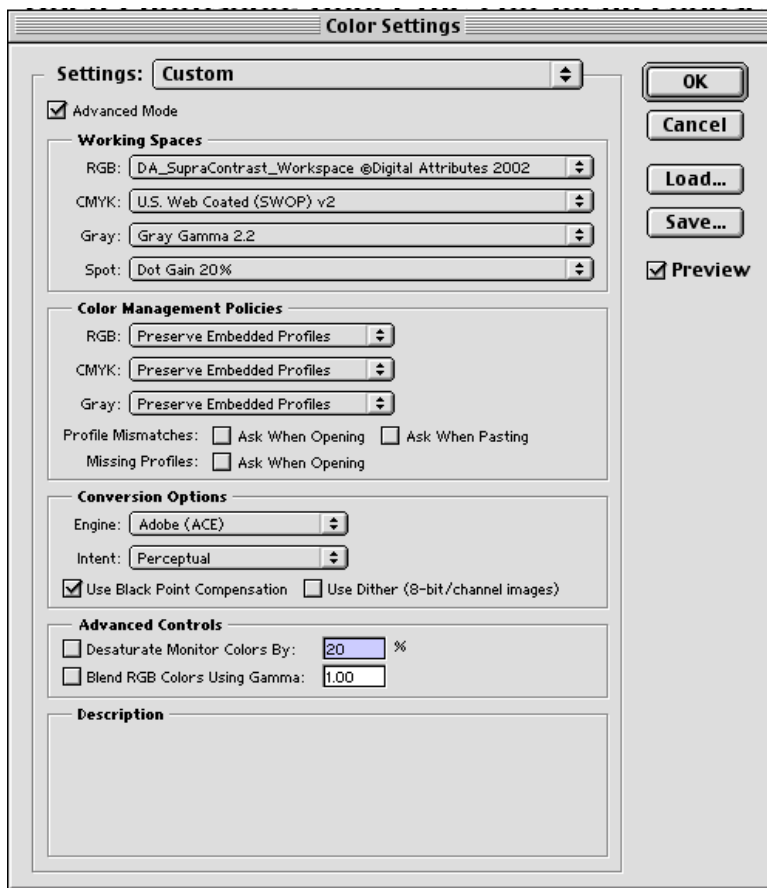
Working Color Space

In the past we have recommended ColorMatchRGB as the default working space in Photoshop. With the ever increasing color gamut's of today's printers we have switched our RGB working colorspace to a custom working space. This new working space will allow us to give you the best prints possible on our Lightjet 430 by increasing the available colors being sent to the printer. If you adopt this new working space it will improve the output you receive from us and it will improve the overall color gamut of your scans. Please see our [download area](#) to download the new colorspace. When you receive the color space move it to your System Folder/Colorsync Folder on the Mac. On the PC put it in:
C:\ProgramFiles\Commonfiles\Adobe\Color\profiles\Recommended.

The next page will explain how to use this new profile in Photoshop.

COLOR SET-UP FOR PHOTOSHOP 6&7

Open Photoshop go to the edit menu and choose color settings and make you settings look like the ones below.



PANTONE® COLOR SIMULATION

When you select a Pantone® color an offset printer uses the Pantone Formula Guide® to mix special inks for separate plates of the press. Digital output such as the LightJet can only simulate these colors. Depending on output device and media, Pantone® colors may not print as you expect.

To get the best results from digital Pantone® simulation:

1. Use Pantone Coated® colors. We do not support any other Pantone® color set.
2. Refer to the Delta E charts tipsheet. Delta E predicts the accuracy of the output device's color match. The lower the Delta E number the more accurate it will reproduce. A Delta E of 2 is a good match, but often values as high as 6 are acceptable.
3. Refer to the Pantone color charts printed on the media and output device of your choice. Ask your Bokland representative about purchasing LightJet and other output specific Pantone books.