

## Color Management for Print and Web

Have you ever printed a photograph that came out differently than it looked on your screen? Perhaps a red dress came out orange or green grass turned blue. Color management in your camera, computer and printer all have an effect on how your photographs present online and in print.

There are three basic color working spaces: sRGB, RGB and CMYK. Each has its own purpose and function.

**sRGB** is the standard default color space for the Internet and is the default color space on most cameras. It is also the default color space in Adobe Photoshop. Unfortunately, it is used primarily by web designers, and it mimics the cheapest PC monitors available. Therefore, it is the worst possible color space for editing photographs.

**RGB** is a color model in which **red, green, and blue** are mixed together in various ways to reproduce a broad array of colors. The majority of Ink Jet printers function on this color space.

**CMYK** is the four color model (**cyan, magenta, yellow, and black**) used in the traditional method of printing. It is used in off-set printing and is the color space utilized by most laser printers today.

The color settings you use depends upon the printer you use to print your photographs, as well as whether you are going to utilize them on a web page or in a printed newsletter.

### CAMERA SETTINGS

Most home as well as many

professional photograph printers are ink-jet and utilize RGB color space. As a result of this, it is generally recommended that you set your camera's color settings to Adobe RGB (1998). Even if your photograph will ultimately be used on the web or printed with an off-set press or laser printer, you can still convert the photograph to the appropriate color space before sending it to be printed.

Before working on a single photograph there are two simple preferences that need to be set in Photoshop.

Step One: Press Shift-Control-K (Mac: Shift-Command-K) to display the Color Settings Dialog. In the Working Spaces section, choose Adobe RGB (1998) from the drop down menu to set the default color space. Then click OK.



Step Two: Press View, select Proof Setup and then Custom from the menu bar for the Proof Condition dialog box.

In the **Device to Simulate** select Adobe RGB (1998) from the drop down menu. For the **Rendering Intent** select Relative Colorimetric

from the drop down menu and check the box for **Black Point Compensation**. Then click OK.



Now that your preferences are set up for RGB, you can process pictures as you normally would.

### FOR WEB USE

Now, let's assume you have processed your picture, it looks great on your computer, and you need to send it to someone to use on the web. There are two ways to prepare your photograph: The first and most simple is to select File, then **Save for Web and Devices** from the menu bar. Next choose the settings that your webmaster desires (size and format) then click save. This process automatically converts your image to the sRGB format for use on the Web.



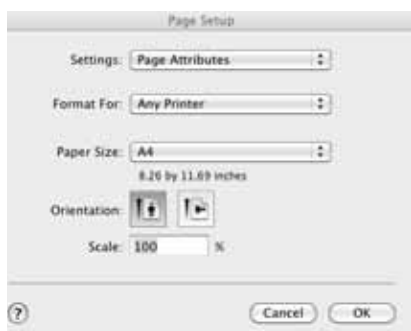
The second way is to simply convert the color profile of that individual image. Select Edit and then **Convert to Profile** from the menu bar. In the **Destination Space** select sRGB for photographs that will be utilized on the web. This same process can be utilized for photographs that will be printed in

a newsletter prepared by a printing press, laser printer or other CMYK process. In this case, in lieu of sRGB, you select CMYK from the drop down menu.

## PRINTING

In Photoshop, Control - P (Mac: Command-P) is the keyboard shortcut that displays the Print Dialog (right). There are several options here that all affect the quality and color of your photographs.

**PRINTER:** Select your printer from the drop-down menu. This is pretty straightforward unless you have multiple printers connected to your computer or network.



Enter the number of copies you would like to print.

**PAGE SETUP:** This will display a new dialog box above. For the **Format For** setting, select your printer from the drop-down menu, and select the appropriate paper size as well as the orientation. Then click OK.

In the **Scaled Print Size** you can adjust the size of your photograph to fit the paper your printing on. Note the preview window on the left side of the Print Dialog Box.

On the top right hand side of the Print Dialog box is a drop-down menu to select Color Management or Output. Select **Color Management**. Insure that the Document is selected and the profile listed is Adobe RGB (1998). This reflects the

color settings for the image to be printed. As we just set the default in Photoshop to these settings, this is what should be seen here!

## COLOR HANDLING

This is the MOST IMPORTANT SETTING and will insure that your photographs print as you see them on your screen. Select **Photoshop Manages Color** from the drop-down menu. *(The second part of this is that you will need to TURN OFF any color management in your printer. Unfortunately you will need to refer to your printer's documentation to see instructions on how to do this. It will most likely be a simple setting in the printer's software).*

## PRINTER PROFILE

Most paper manufacturers have developed printer profile settings for their papers to allow the best possible ink utilization. Called ICC Profiles, these are available for download from their respective websites and are typically self installing. Once installed, select the appropriate setting from this drop-down menu. If you do not have a profile for the paper you are utilizing try the Adobe RGB (1998) setting. There may also be other settings ranging from Photo Paper to Plain

Paper depending upon the printer you have installed. Most printers will install some generic profiles. If this is the case, try each of these to determine which gives you the most accurate color for your photographs.

## RENDERING INTENT

Here, like we did for Proof Condition, you will select **Relative Colormetric** from the drop down menu and check the **Black Point Compensation** box.

## Now, click the print button!

Depending on your printer and if you are using a (MAC or PC) you may see a second dialog box that is specific to your printer. If this is the case, follow the printer instructions. Generally, all you have to do is press print.

Don't worry, Photoshop will remember all of these settings the next time you print, and only some minor adjustments to Print Size and Orientation may be necessary.

Once you've completed these few steps, you should enjoy photographs that look the same on the web, in printed form, and in newsletters as they do on your screen.

See you all in Spokane! - Jim  
www.photographsbyjim.com  
byjim@yahoo.com