

Two months ago, I discussed using the Convert to Profile command for conducting color space conversions for output.

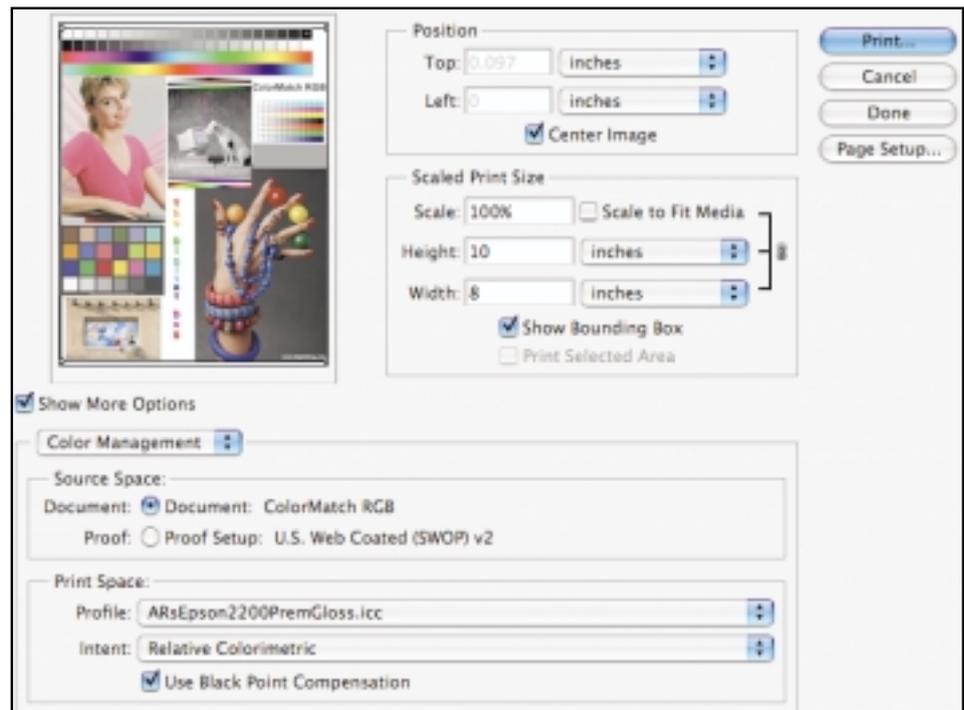
There is yet another method for preparing images for output using Adobe Photoshop called Print with Preview. Many users are under the impression that Print with Preview is part of the operating system or the printer driver, but in fact, Print with Preview is 100 percent Adobe Photoshop. This command has many of the options we saw in Convert to Profile, plus some new options worth discussing.

The dialog box pictured shows the Print with Preview command. It's important to have the Show More Options box checked on and the pop-up menu set to Color Management. This dialog is broken up into two main sections. The area at the top is where you alter the size of the files you wish to output. With an image open, you can play with the various settings while viewing the effect on the preview window on the left. This preview is for position only, and is not color managed. Depending on its working space, your image might look downright ugly, and quite unlike the preview you saw before calling up the Print with Preview dialog. Simply ignore the colors.

Print with Preview addresses color management in the bottom section of the dialog. Like all conversions, we are expected to specify a source and a destination using ICC profiles. In this example, the file I'm about to print is in ColorMatch RGB, which is clearly indicated in the Source Space radio

What is color management?

Part 8: Print with Preview command



button. There's a Profile pop-up menu in the Print Space area where you pick the desired output profile, just as in the Convert to Profile dialog. There are also options available for the rendering intent, black point compensation and other settings. Clicking the Print button accepts these settings and calls up the printer driver; the conversion takes place as the data is sent to the print driver. This is done on the fly, as the file data is being sent off to print. The original file—in this case the image in ColorMatch RGB—remains untouched. This is the main difference between using Print with Preview and Convert to Profile. In the latter, we actually changed all the pixels in the file in order to print it.

The center Proof radio button is an

interesting feature, yet largely ignored. Once you have set up a profile in the Proof Setup in Photoshop, it is available in this dialog for conducting a three-way conversion for proofing purposes.

Suppose you have an output profile for someone's press. You wish to see how the image would appear in its working space after a conversion for that output device, but you want to print the proof on your desktop printer. You want to convert from ColorMatch RGB to U.S. Web Coated (SWOP) v2 (for the press) and use an Epson Stylus Photo 2200 to simulate the print from the press. First, select the SWOP profile in the Photoshop Proof Setup, then go into the Print with Preview dialog and choose the SWOP profile in the Proof radio button. A

conversion will take place from ColorMatch RGB to U.S. Web Coated (SWOP) v2 to Epson 2200 Matte. The print that comes out on the Epson will look like the print you'll get from the press, assuming both profiles are accurate. This technique of three-way conversion is called *cross rendering*. Be sure not to have the Proof radio button selected if your intent is to simply output your files to a printer, which is simply a two-way conversion.

There's an option in the Print Space area/Profile pop-up menu named Same as Source. In effect, it's an off setting that allows the original color of the file to go through the Print with Preview command without being affected by a print/output profile. If you were to select Same as Source using our examples thus far, the ColorMatch RGB data would go straight to the printer without being converted to the print space. The resulting print would not be acceptable. However, if you use the Convert to Profile command so that the data will be color managed, ready to go to the printer, you would pick this Save as Source option; otherwise the data would get a double dose of color management and the result would be one heinous print. Therefore, decide whether you want to apply the output profile in Photoshop using Convert to Profile or apply the profile in Print with Preview at print time.

Print with Preview is a great way to color manage your images when you are printing directly from Photoshop; Convert to Profile is best when you need to send color management files to others, such as a lab. When using Print with Preview, if the file has more than 8 bits per channel, you can still print this way, even if your printer or driver doesn't support high-bit data. The Print with Preview dialog will convert on the fly from 16 bits to 8 bits while doing all the color conversions on the file. This is usually faster than waiting for Photoshop to process the entire file using Convert to Profile, and it means that when the printing is complete, your file is still in its original working color space. The main downside

to Print with Preview is that you need to know prior to printing which rendering intent you want, because the preview you see in this dialog is not color managed.

Next month we will look at producing

soft proofs, which helps you decide how to print the files. □

You can reach Andrew Rodney through www.digitaldog.net. Rodney's upcoming book, "Color Management for Photographers," will be available from Focal Press in early 2005.