

In the last column I described the difference between the two most popularly used rendering intents; relative colorimetric and perceptual. I also demonstrated the procedure which allows you to proof your image; to view it as it is seen by the printer and not as it appears on the monitor. Now it finally is time to print the image. Because there are significant differences between printing in the two most popular operating systems, I'll describe printing with Windows in this column. In the next column, I'll repeat the process for the Mac operating system.

So, the preliminaries are finally complete and it's time to make a print. The color corrected RGB image has been resized for the desired print, and has been sharpened (**Figure 1**). In addition, it has been proofed to the planned paper/ink/printer that will be used, and a rendering intent selected.

One caveat before we go any further ... the screen captures in this column are for Epson printers. Accordingly, they will differ from those for an HP or Canon printer. Pretty much the same functionality exists on those systems, but it will probably be necessary to do a little hunting to find the relevant 'switches'.

Start the process in Photoshop with the command File>Print (**Figure 2**). Begin by checking the drop down box at the top center of this large dialog to see that the correct printer has been selected. Next go to is the large Color Management box on right hand side of the dialog. Recall, there are two ways to print: one can let Photoshop manage the printing process OR



Figure 1: This is the image to be printed. It has been resized to print on 13x19" paper (A3 size).

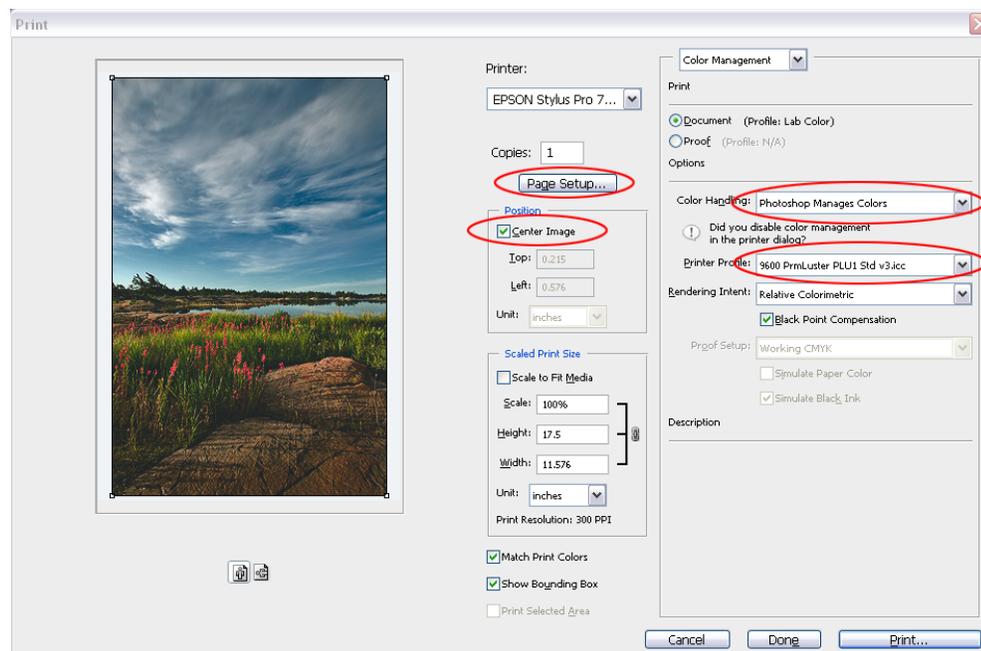


Figure 2 ... this is the File>Print screen for the PC. The red circled boxes are of special importance and the recommended settings are described in the text.

one can let the Printer driver do that job. This means that one method must be turned ON. It also means the other must be turned OFF. **Failing to turn the other system OFF, results in BOTH trying to manage the process and invariably produces a terrible result (print).** This is the most common problem users have with the printing process!

Most recommend using Photoshop to manage the process, and that option has been selected in Figure 2. Printer color management will get turned off later, on one of the printer driver screens. With Photoshop managing the process, one must also select the appropriate profile to be used. Here an Epson supplied profile has been selected for their Premium Luster paper. Relative Colorimetric Rendering Intent has been selected because there are few out-of-gamut colors. Black Point Compensation has been turned ON.

In the center of Figure 2 there are two large boxes, one titled Position, and the other Scaled Print Size. Position allows one to place the image at any desired location on the paper. With Center Image unchecked, drag the image to the desired location. In Figure 2, Center Image has been checked which positions the image at the center of the sheet. The preferred procedure is to resize the image to the desired print size in Photoshop, however the Scaled Print Size section of this dialog is another option. In particular, selecting the Scale to Fit Media is a good choice when the objective is a preliminary test print.

The next step is to select the Page Setup option on Figure 2; this opens the printer dialog. **Figure 3** shows the result for an Epson 7600; other Epson printers have slightly different dialog, but the information content of these screens is similar. Figure 3 shows the Epson 7600 printer dialog has 4 tabs along the top of the dialog. Figure 3 is the Paper tab, where one selects the Paper Source, Paper Size and Orientation. Centering the image on the sheet is another available option. Notice that some of these choices are redundant to what's included in Figure 2. This is because one is created specifically for the printer (in this case, by Epson) and the other is created for Photoshop by Adobe. The redundancy is a consequence of the very large number of makes and models of printers used with Photoshop.

Now select the Main tab at the top right of Figure 3. **Figure 4** shows that portion of the printer dialog. Here one selects the appropriate paper type (Premium Luster), and chooses Ink; normally Color and not Black. Then select the Mode box, click ON the Custom box, and then choose Advanced, which opens **Figure 5**.

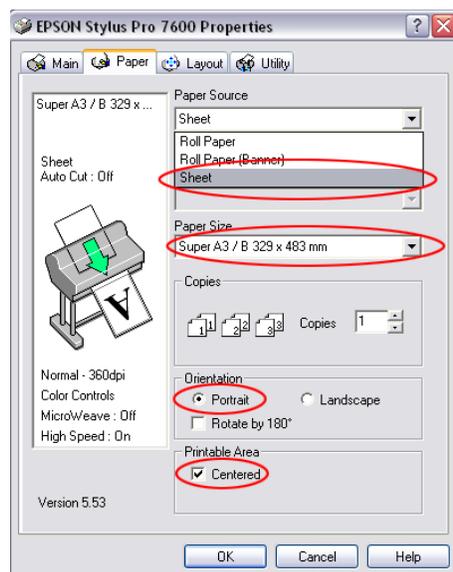


Figure 3 is the Printer dialog. Notice the 4 tabs which constitute the entire dialog. This is the Paper tab.

It is here that one turns off printer color management. The box says 'Off (No Color Management)', but this is a Printer screen, so what it really means is no color management from the printer driver. Having chosen OFF here, and having previously turned Photoshop Manages Colors ON (see Figure 2), accomplishes the 'one ON other OFF' requirement we mentioned in the third paragraph of this column.

The left hand side of the Figure 5 controls how the printer will lay down ink. The 1440 dpi (Superfine) setting does an excellent job while the 2880 setting does no better but uses more ink. Here both Super Microweave and Finest Detail have been selected. High Speed has been unchecked, which means the printer prints only in one (not both) directions; this slows the printing but improves the ink drying. Note: all of these settings affect the print to some degree and ideally should be identical to those used to make the profile.

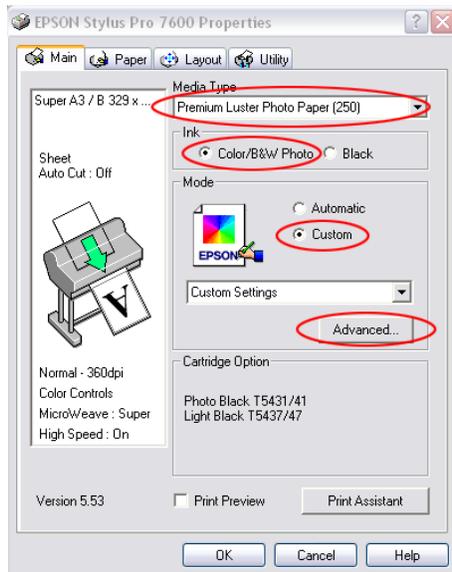


Figure 4 shows the Main tab of the printer dialog.

The settings are now complete. To initiate printing, choose OK on Figure 5 and OK on Figure 4, to go back to Figure 2. Here is one last chance to check settings and confirm that the paper orientation is correct. Clicking Print sends the image to the printer and actually begins the printing.

While this entire process may seem unduly complicated, keep in mind that it involves an interaction between software (Photoshop and the printer driver) and hardware (the printer itself). Furthermore there are a very large number of printers that could be involved, only some of which are inkjet type. Like most such processes, you learn by doing and with a little experience this process too will become both better understood and intuitive.

Next month I'll cover the actual printing process for the Mac operating system.

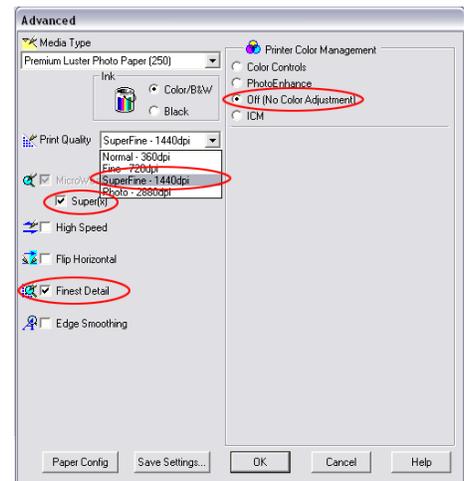


Figure 5 is the advanced tab of the printer dialog. This is where one turns OFF printer color management on the PC. It is also the screen where one selects other printing parameters, which should be the same as those used in the creation of the printer profile.