

Adobe Photoshop 7

Managing Colour When Printing

By Ian Lyons © 2002

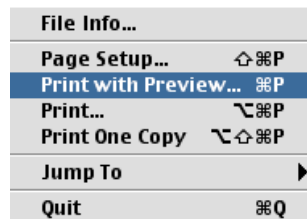
Photoshop 7 has finally arrived and as with all new products we see some early adopters having some difficulties regarding certain features. This tutorial deals with one such feature - Printer Colour Management and is compatible with both Mac and PC platforms.

In Photoshop 7 the "File > Print" menu option no longer gives the user access to colour management settings. Not to worry - to gain access to the settings formerly found in the Print dialog we must now choose "File > Print with Preview" or use the keyboard shortcut "Command+P" on the Mac or "Ctrl+P" on the PC. It's worth noting that the method described below was also available in Photoshop 6 (File > Print Options), but doesn't appear to have been widely used.

The initial screenshots used below are based upon the Microsoft Windows 2000 version of Photoshop 7 but should provide more than ample guidance to anyone using Mac OS 9.x or Mac OS X. The printer driver screenshots are OS specific and based upon the Epson Stylus Photo 1270 (other Epson printers should be similar). The Windows, Mac OS 9 and OS X printer driver settings are available on dedicated pages



Figure 1



PC Windows

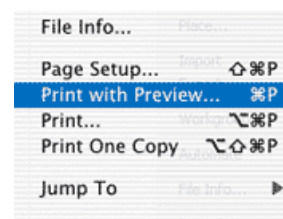


Figure 1

The new Print dialog (figure 2) will appear and we can begin the process of getting things configured so that Photoshop can print using the more familiar print dialog.

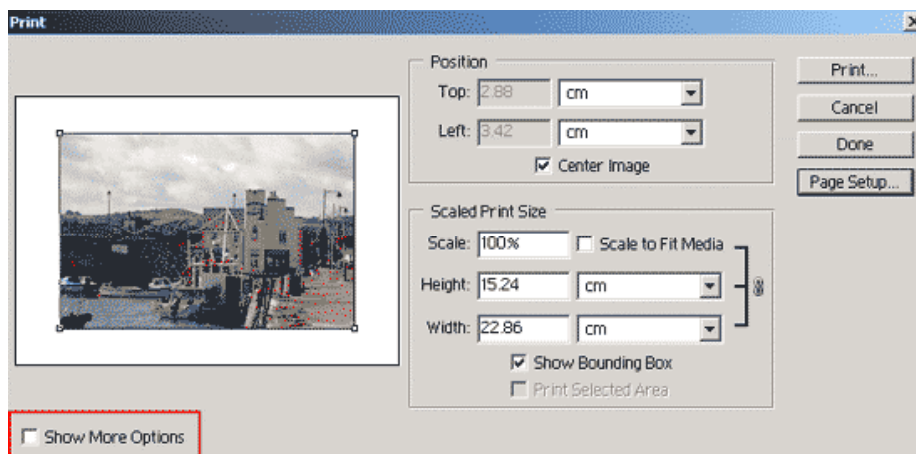


Figure 2

- Begin by engaging the "Show More Options" checkbox.

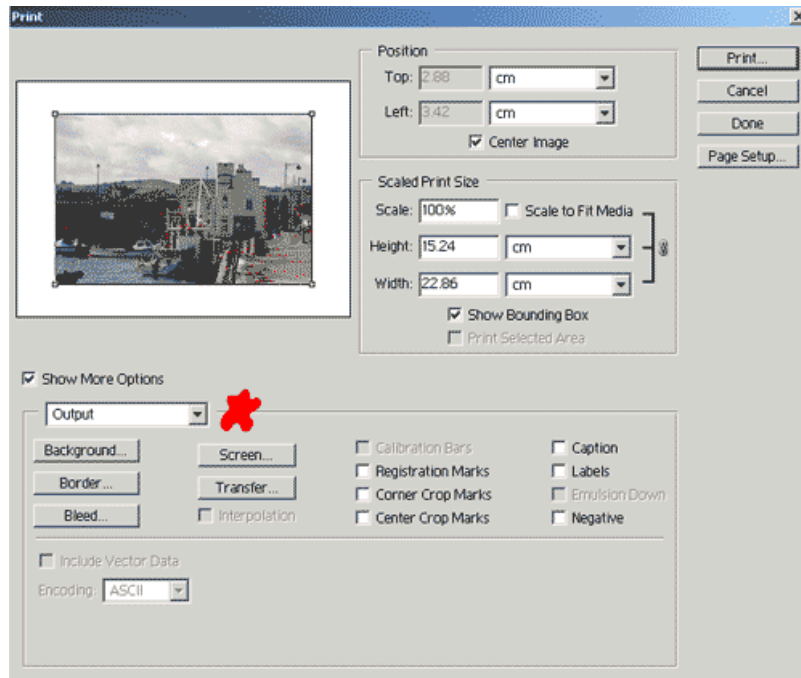


Figure 3

Notice that we now have a whole raft of options available (figure 3), most of which are of no relevance to those users with the typical desktop inkjet printer.

Click the popup labelled "Output" and choose "Colour Management". The dialog will quickly change form (Figure 4) and low and behold we're back with something similar to the Photoshop 6 print dialog in so far as we now have access to the essential colour management tools required to achieve high quality output.

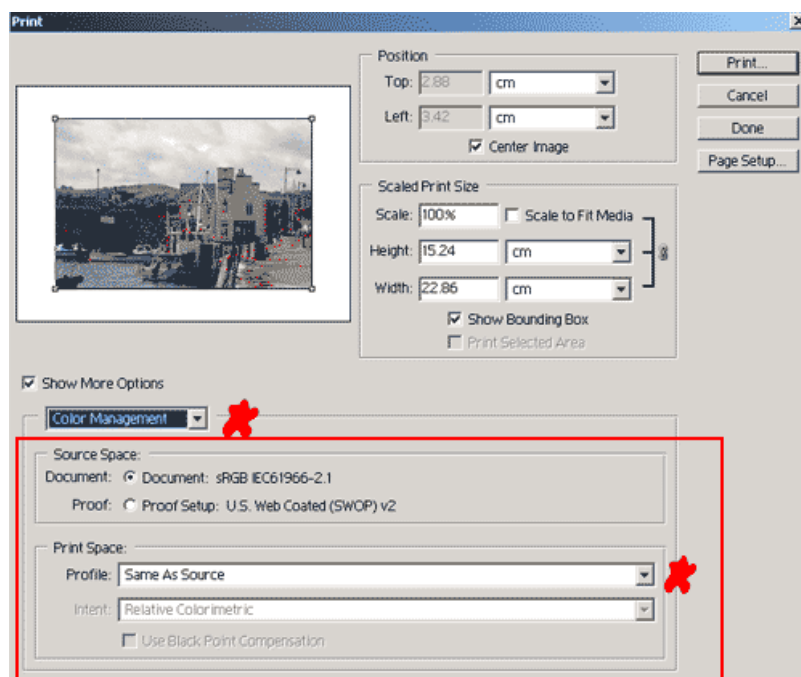


Figure 4

- "Source Space: Document" denotes the actual colour space of the "source" image/document to be printed. The above example shows sRGB, but it could be any number of user specified alternatives (e.g. Adobe RGB (1998), ProPhoto, ColorMatch).
- "Source Space: Proof" tells Photoshop to convert the image/document from the source colour space to the ICC profile specified in the Proof Setup dialog.
- "Print Space: Profile" is where we choose the preferred method of managing the colour output from Photoshop. We have a number of options:
 1. "Same as source" (figure 4): - Photoshop simply passes the image/document straight to the printer driver without making any alterations. Unless you also have chosen Proof: Proof Setup this option is effectively telling Photoshop to NOT colour manage the printing of the image/document.

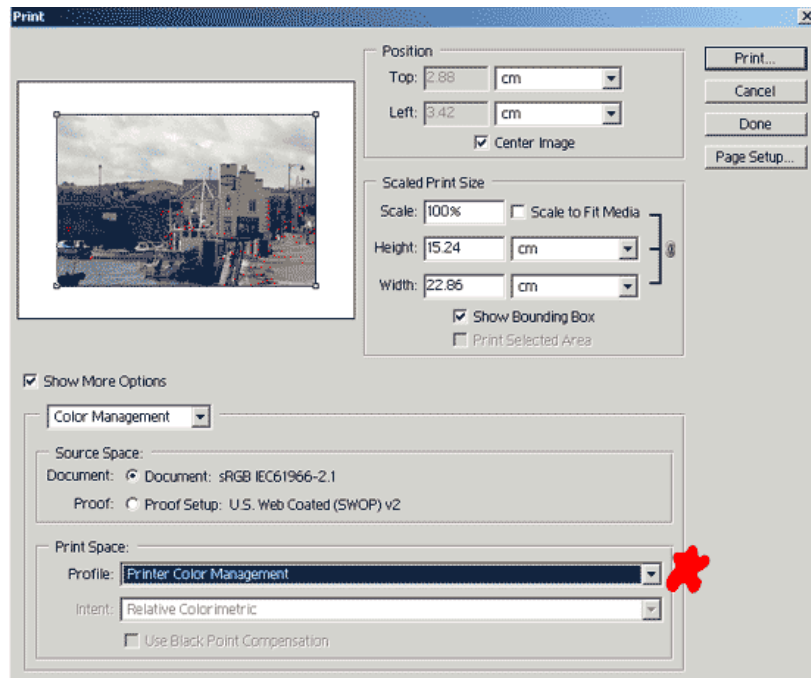


Figure 5 - Automatic Printer Colour Management

2. "Printer Color Management" or "Postscript Color Management" (figure 5): - choosing this options tells Photoshop that the image/document should be sent to printer driver with the profile listed against "Source Space:" embedded within it. By embedding the profile Photoshop is providing the printer driver with all the necessary information required to ensure accurate colour rendering. The image/document colour management is handled automatically by the printer driver.

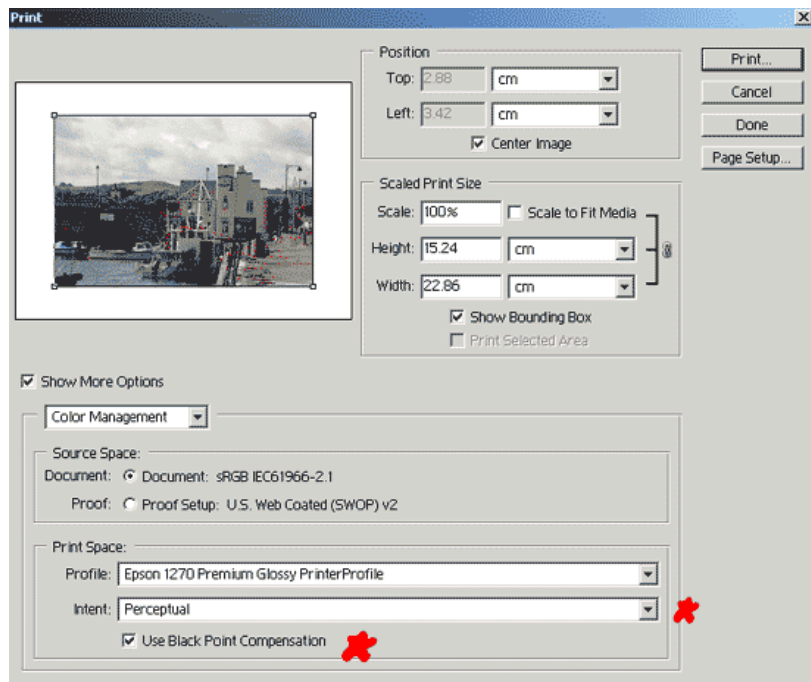


Figure 6 - Using Media Profiles

3. "ICC Profile" (figure 6): - this last option is where we choose a specific profile that is compatible with our printer. Notice that once an ICC profile is selected the "Intent" and "Use Black Point Compensation" (BPC) facilities are activated. Generally you'll want to use Perceptual and have BPC checked.

Once the Print with Preview dialog has been configured to suite your requirements it's simply a matter of choosing Print and you should be back into familiar territory. The following pages describe the driver settings for both Mac and PC platforms.

Windows Platform (driver shown = Windows 2000)

- Press the "Print" button. The following screen-capture shows the Photoshop 7 print dialog.

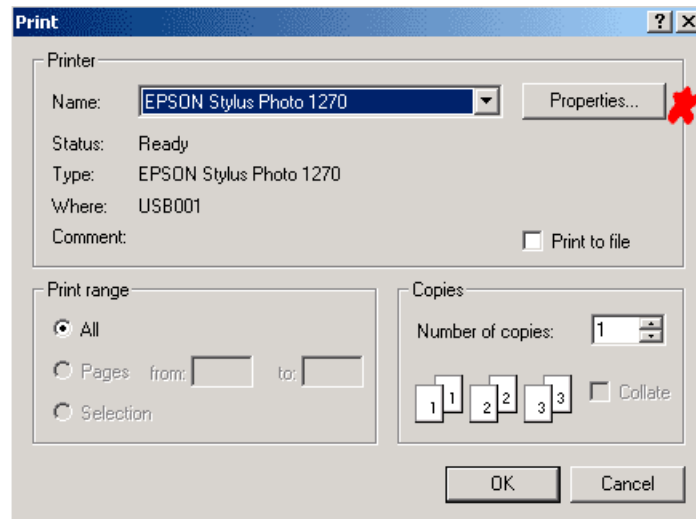


Figure 7 - Print Dialog

- Now press the Properties button. Once the Printer driver window appears choose the type of Media (1) that will be used. Next select "Custom" mode (2). The last setting to choose in this dialog is the Advanced button (3).

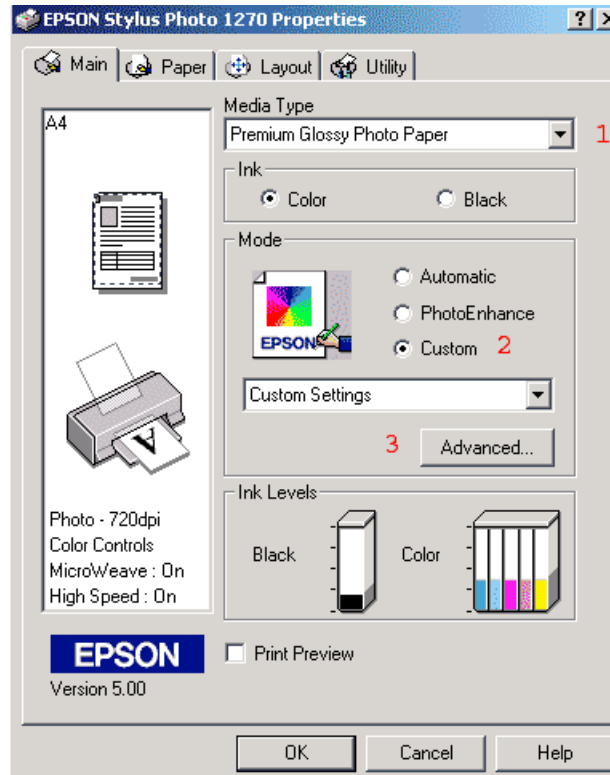


Figure 8 - Epson Printer Dialog - Main Window

- Chose the highest Print Quality (4) option compatible with the printer/media combination that you require. Halftoning should be set for High Quality. High Speed (5) should be disabled.
- Color Management (6) can be set-up for Color Controls, PhotoEnhance4, ICM or No Color Adjustment mode. Note that No Color Adjustment mode is ONLY compatible with Photoshop when the user is in possession of media type profiles and has chosen to use them in Photoshop (figure 6 on previous page). Using Color Controls, PhotoEnhance4 or ICM mode requires that the Photoshop Print Preview dialog be configured as shown in figure 5.

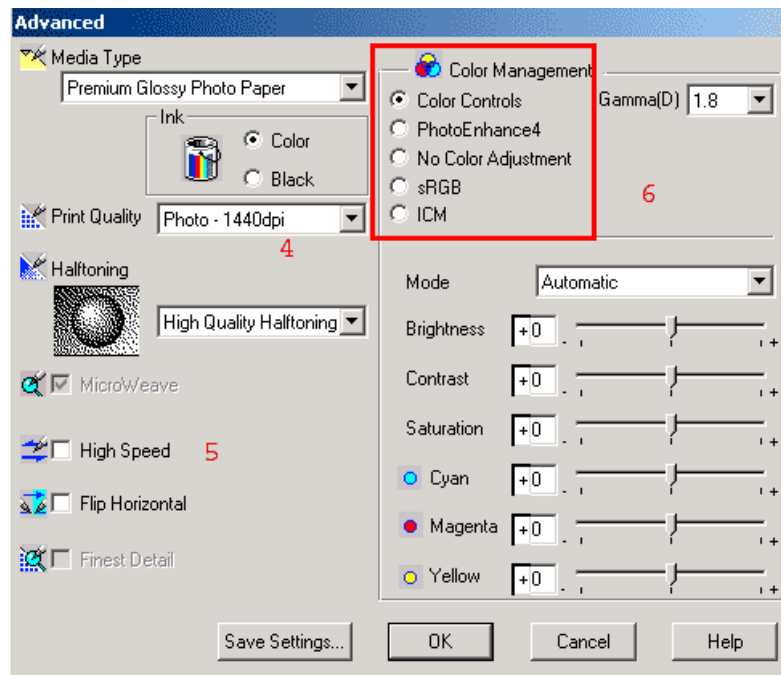


Figure 9 - Epson Print Driver - Advanced Settings

- In the absence of good quality media profiles my personal preference would be ICM mode since it disables the adjustment sliders and removes most of Epson's internal colour/contrast processing. Lastly, press the OK button (twice) and return to the Photoshop 7 Print dialog.

Mac OS 9

- Press the "Print" button. The following screen-capture shows the Photoshop 7 print dialog.

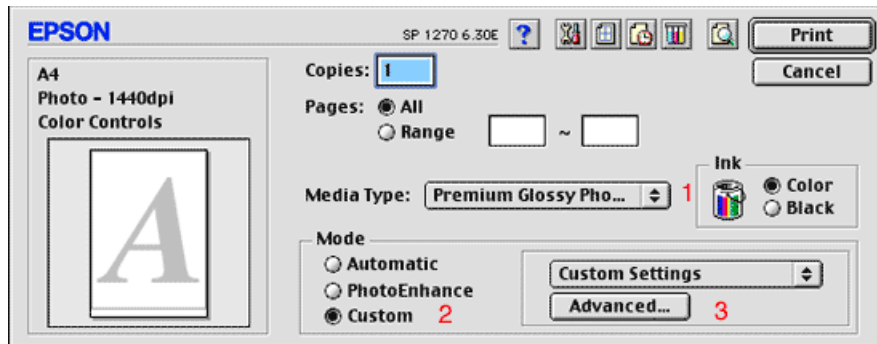


Figure 7 - Print Dialog

- When the Printer driver window appears choose the type of Media (1) that will be used. Next select "Custom" (2) and "Advanced Settings" (3).

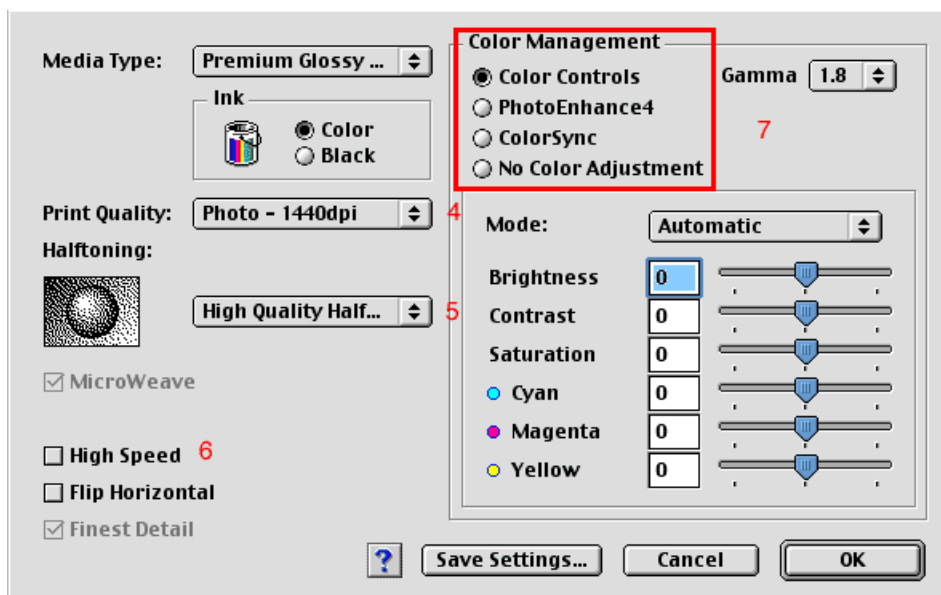


Figure 8 - Epson Printer Dialog - Main Window

- Chose the highest Print Quality (4) option compatible with the printer/media combination that you require. Halftoning (5) should be set for High Quality. High Speed (6) should be disabled.
- Colour Management should be set-up for either Color Controls, PhotoEnhance4, ColorSync or No Color Adjustment mode (7) Note that No Color Adjustment mode is ONLY compatible with Photoshop when the user is in possession of media type profiles and has chosen to use same in Photoshop (figure 6 on previous page). Using Color Controls or ColorSync mode requires that the Photoshop Print with Preview dialog is configured as shown in figure 5. Unless you have good reason to choose differently I recommend leaving the Gamma at 1.8.

Mac OSX

- Press the "Print" button. The following screen-capture shows the Photoshop 7 print dialog. It is important that you configure the driver in the sequence I show otherwise there is a good chance that one of the settings will revert to the Epson default.

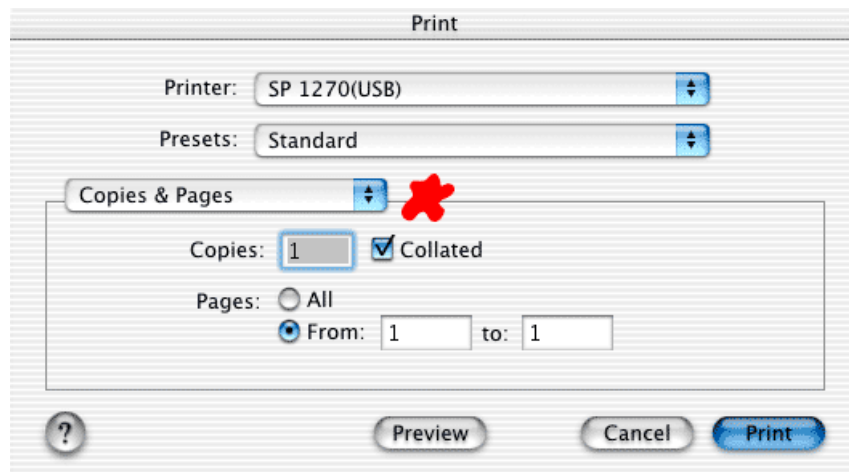


Figure 7 - Print Dialog

- Now press the popup labelled Copies and Pages. Choose Print Settings. The Printer driver window appears choose the type of Media (1) that will be used. Next select "Advanced Settings" (2).

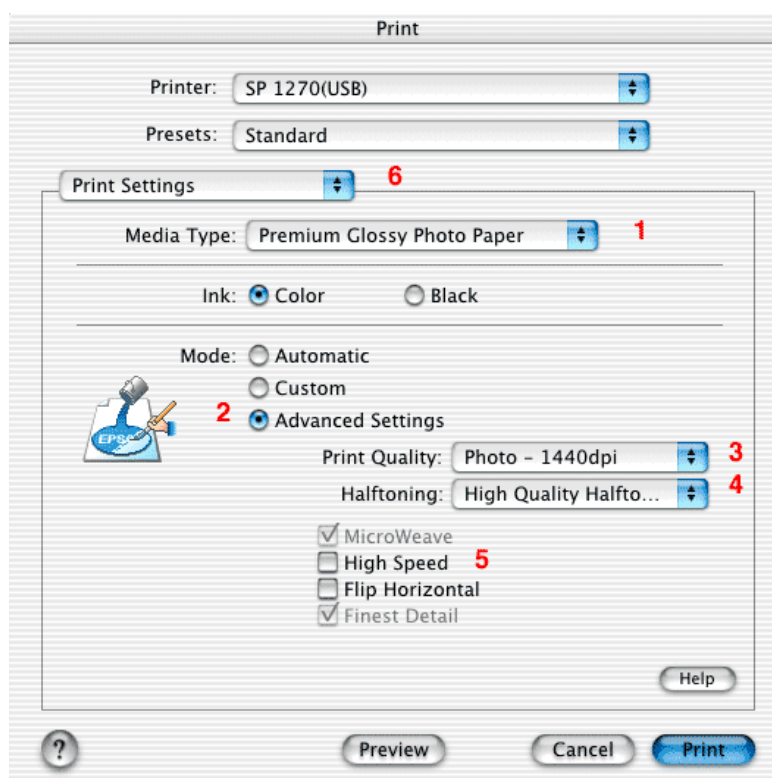


Figure 8 - Epson Printer Dialog - Main Window

- Chose the highest Print Quality (3) option compatible with the printer/media combination that you require. Halftoning (4) should be set for High Quality. High Speed (5) should be disabled.
- Return to the popup now labelled Print Settings (6) and choose Color Management.
- Colour Management should be set-up for either Color Controls, ColorSync or No Color Adjustment mode (7) Note that No Color Adjustment mode is ONLY compatible with Photoshop when the user is in possession of media type profiles and has chosen to use same in Photoshop (figure 6 on previous page). Using Color Controls or ColorSync mode requires that the Photoshop Print Preview dialog is configured as shown in figure 5 on the previous page. Unless you have good reason to choose differently I recommend leaving the Gamma at 1.8.

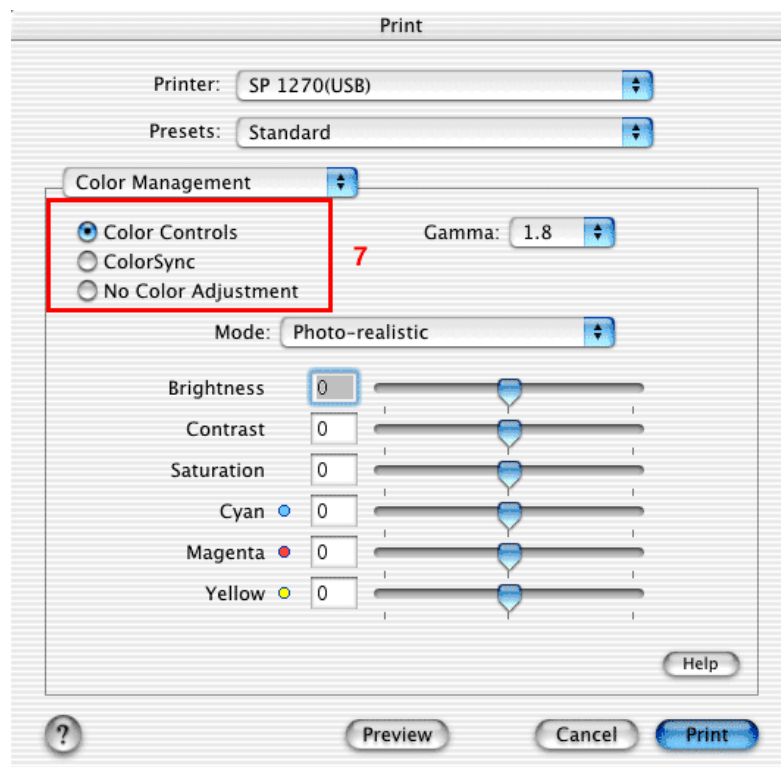


Figure 9 - Epson Print Driver - Advanced Settings

- In the absence of good quality media profiles my personal preference would be Color Controls mode since it automatically utilises the internal Epson media profiles.

Note:

For whatever reason Epson have chosen to hide their own media profiles at "/Library/Printers/EPSON/SPyyyy.plugin/Contents/Resources/ICCProfiles/" (yyyy is your printer name). This means that whilst the print driver can access them when required the user cannot, at least not easily. The actual profiles are buried within a Printer Plugin (e.g. SP1270.plugin) but you can access them by using the OSX Show Package Contents option (List View) and then digging down through the list of folders until you reach ICCProfiles. Once found simply drag the folder to the Users/xxxxx/Library/ColorSync/Profiles folder (xxxxx is your name). The profiles will now be available for direct use from within Photoshop.

- Lastly, press the OK button. The following warning dialog may appear, if so simply click OK and the print should be spooled to the print centre.

