

## Printing Images from Adobe Photoshop CS2

Adobe Photoshop is a powerful image editing program, and can be used to make high quality prints from image files. This document is divided into two main sections: **Photoshop Setup**, and **Opening and Printing Images**.

### Photoshop Setup

One of the most important and least understood aspects of Photoshop involves properly setting up its color management options. Figure 1 below shows a recommended Color Settings setup.

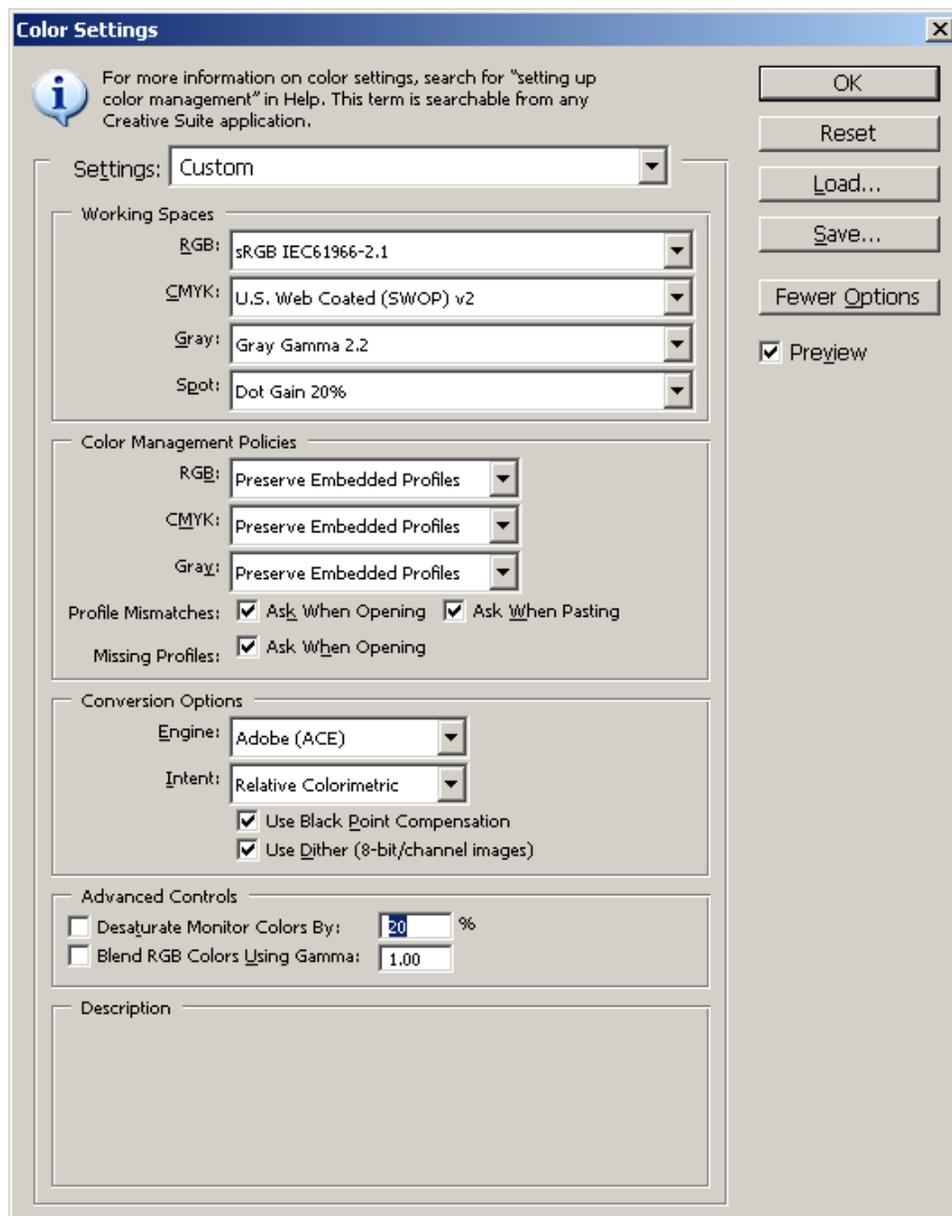


Figure 1

## Opening and Printing Images

Open the image that you want to print in Photoshop. If the image contains an embedded profile that differs from your Working Space, a dialog will be displayed asking whether you want to convert the image to your Working Space. Generally, you should use the embedded profile. This is shown in Figure 2 below.

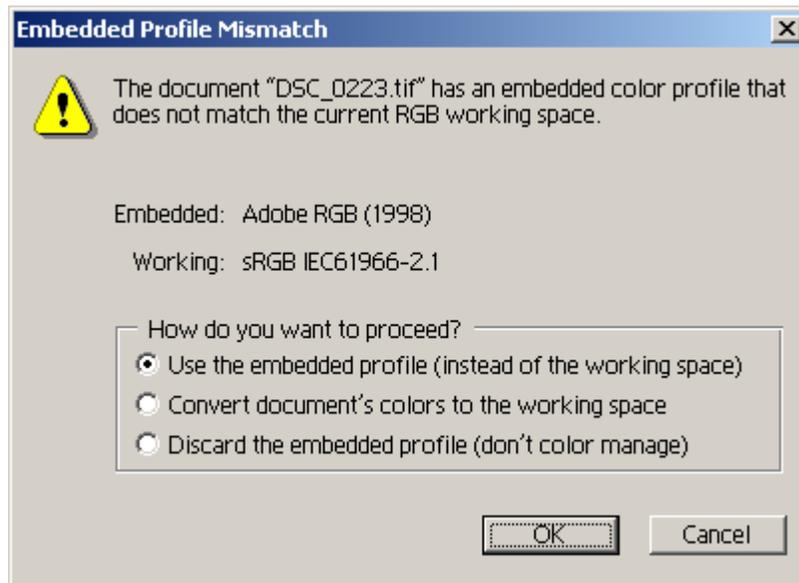


Figure 2

If the image you are opening does not contain an embedded profile, a dialog will be displayed asking what you want to do. If you know what color space the image is in, assign a profile, either the working RGB (if it's the same as your default working space shown here as sRGB), or select a profile from the dropbox. If you don't know what color space the image is in, select *Leave as is (don't color manage)*. This is shown in Figure 3.

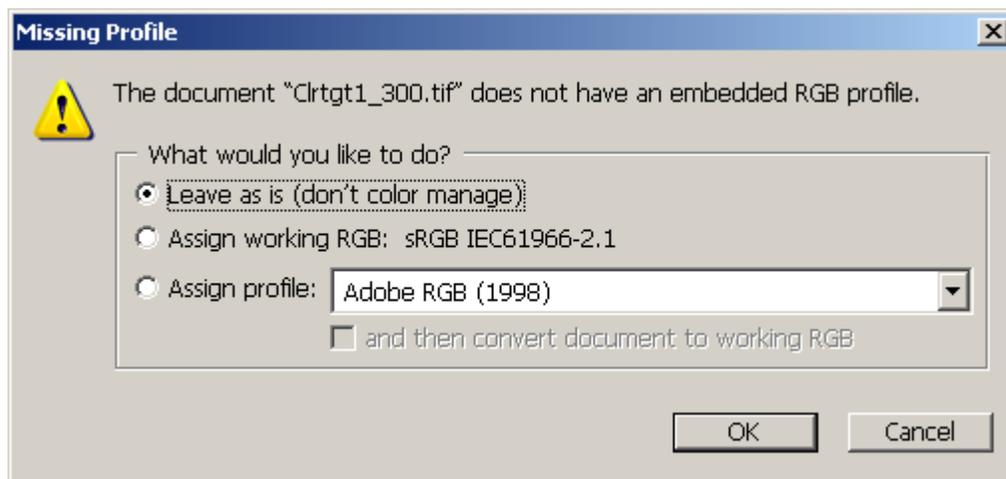


Figure 3

Now that your image is open in Photoshop, you can edit it as needed. Before printing the image, you should check the size, to ensure that it will print at the desired size. To do this, select Image | Image Size. A dialog will appear similar to the one shown in Figure 4. Make sure that the *Constrain Proportions* and *Resample Image*: checkboxes are checked. Set the resolution to 300 pixels/inch if printing to a Kodak ML-500 or 9810, 301 pixels/inch if printing to a Kodak 1400, or 314 pixels/inch if printing to a Kodak 8500 printer. Set either the *Height* or *Width* dimension to the desired size. The other dimension will automatically change to maintain the correct proportions. Once you have resized the image to the desired size, click on the *OK* button.

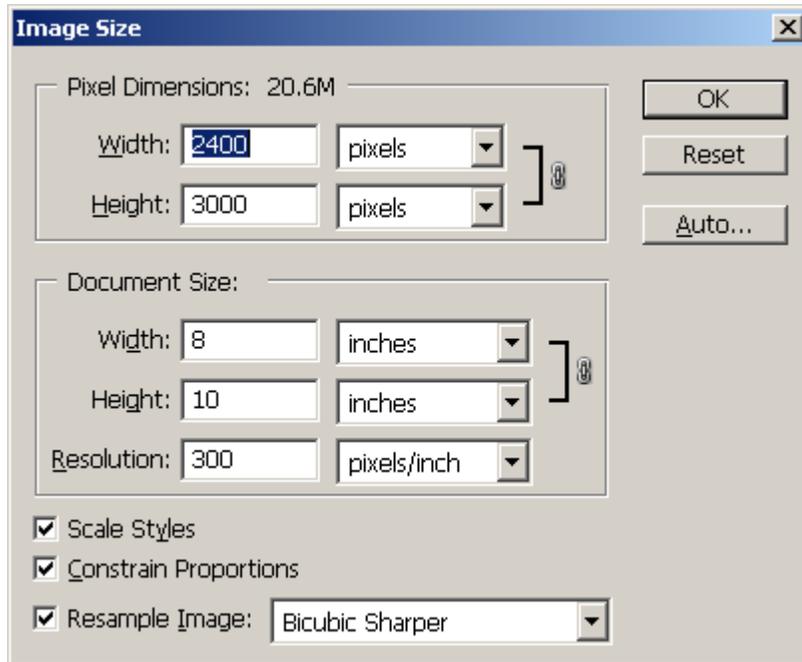


Figure 4

If you wish to “soft proof” (monitor preview) what your print will look like, you can use the *Proof Colors* feature of Photoshop. To setup this feature, select *Proof Setup* from the *View* menu. A dialog similar to the one shown in Figure 5 will appear. Select the profile for the printer/media that you are using in the *Profile*: box. Set the *Intent*: to *Perceptual*, and check the *Black Point Compensation* and *Preview* checkboxes. You can optionally check the *Paper White* checkbox for a more accurate indication of the overall print contrast. Once you have setup the parameters in the *Proof Setup* dialog, click on the *Save* button to save the proof setup values. After saving, the named file will now appear near the bottom of the *Proof Setup* dialog. You can now click on the name to apply the selected proofing setup. Once selected, you can toggle the *Proof Colors* function by pressing *Ctrl-Y*. When the *Proof Colors* feature is enabled, the named *Proof Setup* will appear in parentheses next to the filename as shown in Figure 6.

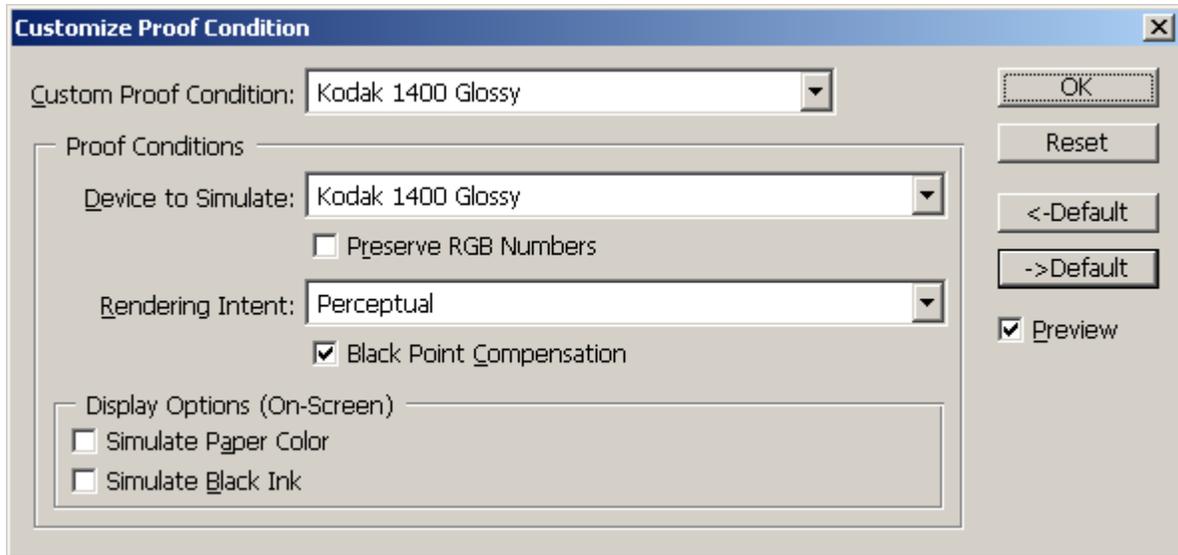


Figure 5

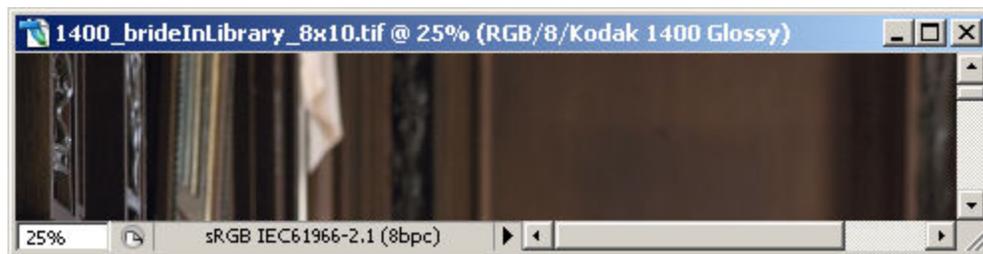


Figure 6

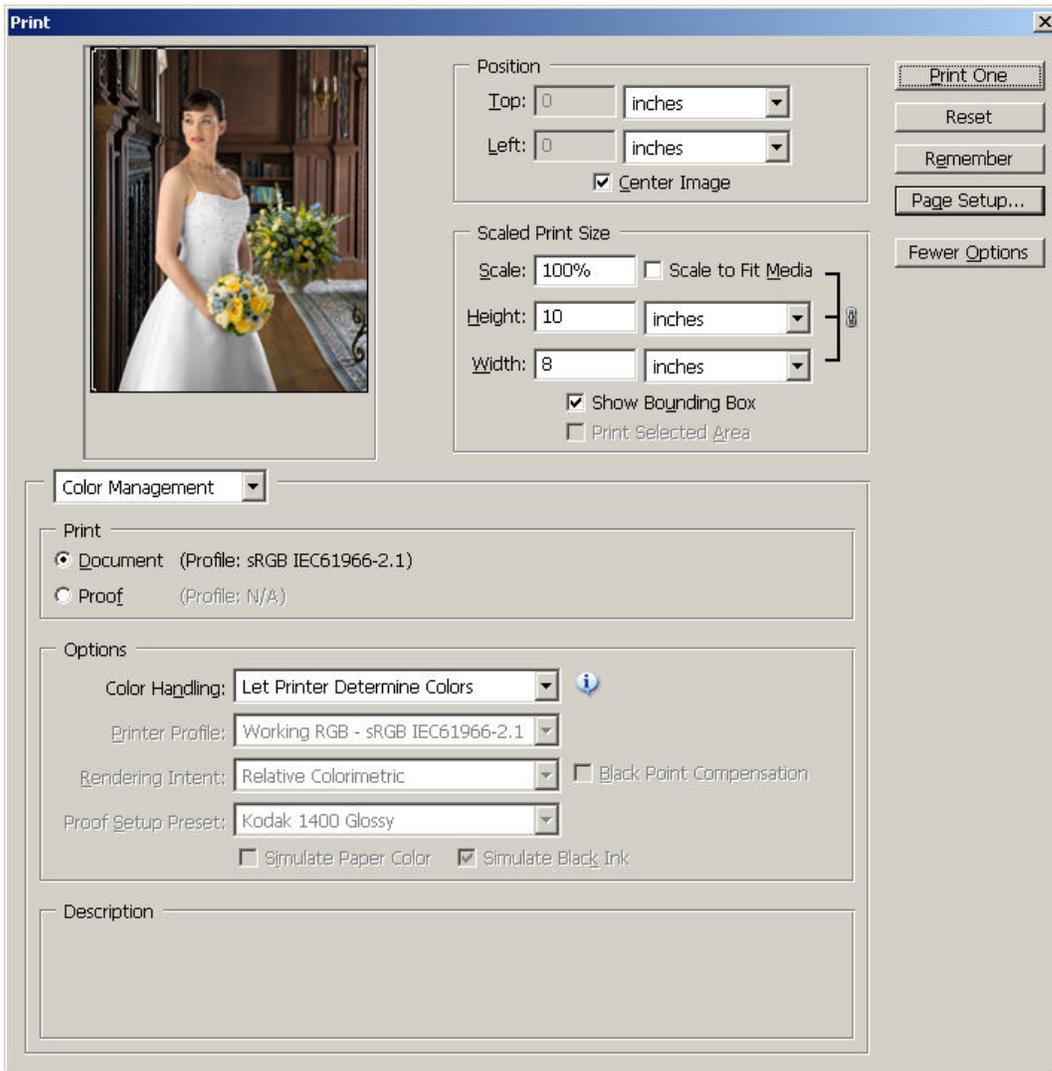
Photoshop interacts with the Windows and Macintosh operating systems differently. Therefore, Windows and Macintosh will be discussed separately.

## Windows 2000/XP

When you are ready to print the image, select *Print with Preview* from the *File* menu. A dialog similar to the one shown in Figure 7 will appear. Select *Color Management* from the dropdown box below near the left side of the dialog. Set the *Print:* to *Document* (the document color space will be shown to the right). To color manage the printed output, set the *Options, Color Handling* dropdown box to *Let Printer Determine Colors*. This will allow Windows ICM to color manage the image data when it is sent to the printer driver. If you wish to turn off printer color management, set the *Color Handling:* dropdown box to *No Color Management*. If you wish to have Photoshop apply the printer ICM profile when sending the image data to the printer driver, set the *Color Handling:* dropdown box to *Let Photoshop Determine Colors*, and select the ICM profile that you wish to use in the *Printer Profile:* dropdown box. You can now specify the *Rendering Intent* via the dropdown box below the profile name. Normally, you should select

*Perceptual* or *Colorimetric* for the rendering intent depending upon your need. Photoshop interacts with Windows and turns off Windows ICM so that the profiles are not applied twice.

You are now ready to click on the *Print...* button to send the image to the printer driver for printing on the selected printer.



**Figure 7**

### **Macintosh (OS 9.x/10.2.x)**

When you are ready to print the image, select *Print with Preview* from the *File* menu. A dialog similar to the one shown in Figure 8 will appear. Select *Color Management* from the dropdown box near the left side of the dialog. Set the *Print:* to *Document* (the document color space will be shown to the right). The Macintosh drivers (both OS 9 & 10) always apply the printer ICC profiles when an image is printed. To color manage the printed output, set the *Options, Color*

*Handling* dropdown box to *Let Printer Determine Colors*. Note that selecting *No Color Management* will give the same results (since the printer ICC profile is always applied). If you wish to apply the printer profile in Photoshop, you must first disable the printer color management, or the print will be doubly color managed. Since the printer driver selects the printer profile by means of the profile's filename, the easiest way to disable the printer color management is to rename the profile. I would suggest adding a number at the end of the profile name. For example, you could rename the *Kodak 1400 Glossy.icm* profile to be *Kodak 1400 Glossy1.icm*. The profiles are embedded within one of the driver files (the filename varies depending upon the printer model). Once you have disabled the printer color management, you can then select the ICC profile that you wish to use in the *Printer Profile:* dropdown box. You can now specify the *Rendering Intent* via the dropdown box below the profile name. Normally, you should select *Perceptual* for the rendering intent.

You are now ready to click on the *Print...* button to send the image to the printer driver for printing on the selected printer.

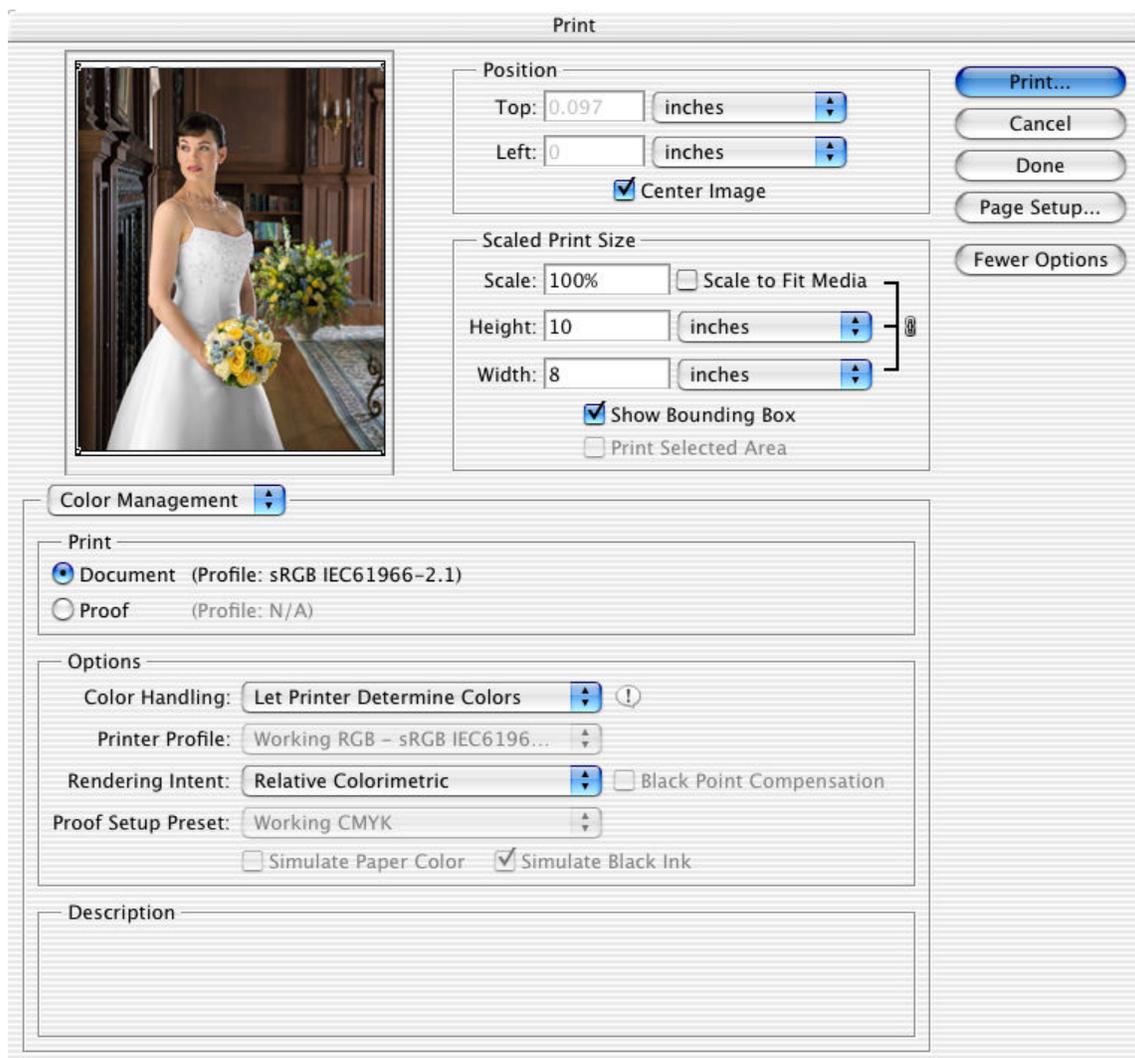


Figure 8 (OS X)