

Use the Correct ICC Profile for Web Images

Embedding Profiles When Saving Images

When you save an image in Photoshop, by default it will embed the color space for that image as an ICC color profile into the file (if the image has no embedded profile, it will use the default color working space that is set in Photoshop's Color Settings dialog). You can turn this off with a check box in the Save As dialog but I don't recommend that.

The embedded profile is a reference for how the colors in the image should be displayed. Other applications that know how to interpret ICC profiles will be able to use this to ensure that the display of the image is correct. To harken back to darkroom and photo lab days, if you ever brought a negative into a lab to have a new print made, you may also have brought along a previous print that you liked to serve as a *Guide Print* for the technician who would be making the new print. An embedded color profile is essentially a digital version of a guide print; a reference for how the colors in the image should appear. This is why it's a good idea to make sure that the Embed Color Profile check box is checked when you save a file in Photoshop (Figure 1). If your image will be displayed by other applications that are ICC-savvy, then the information is there to ensure a correct interpretation of the color numbers that make up the image.

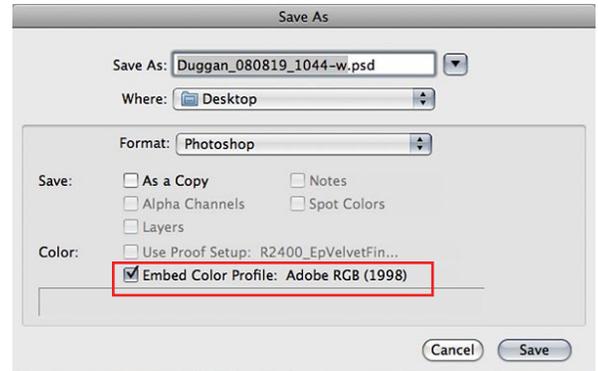


Figure 1. The Save As dialog with the Embed Color Profile option highlighted.

Color Profiles on the Web

This system works well assuming that your images will be opened in or displayed by programs that honor ICC profiles and also that the monitor that is displaying them is properly calibrated and profiled. For images that are intended for display on the web, the reality is that not all web browsers are equal in how they recognize and interpret embedded color profiles, if they even recognize them at all (and you just have to let go of the monitor issue since it's beyond your control). To ensure that web images are most likely to look the way you intend them to, you need to use the color profile that represents the lowest common denominator in both web browsers and monitors: sRGB IEC61966-2.1, more commonly known as simply **sRGB**.

Converting Images to sRGB

After making a duplicate copy of your Master image, flattening any layers, re-sizing to web size and sharpening to taste, choose **Edit > Convert to Profile**. In the drop down menu for Destination Space, choose sRGB (Figure 2). In Photoshop CS3 and CS2 there is an ICC Profile check box in the Save for Web & Devices dialog that should be turned on (Figure 3) so that the profile is included with the image file. In Photoshop CS4 this option is labeled "Embed Color Profile" (Figure 4).

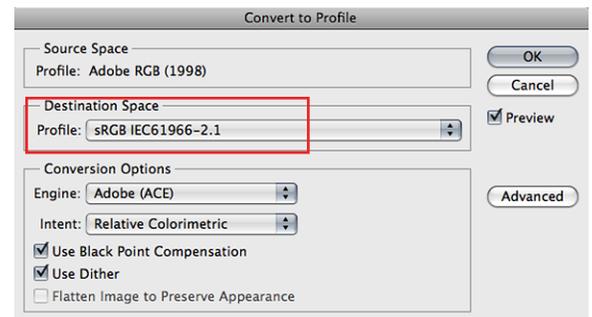


Figure 2. The Convert to Profile dialog in Photoshop CS4.

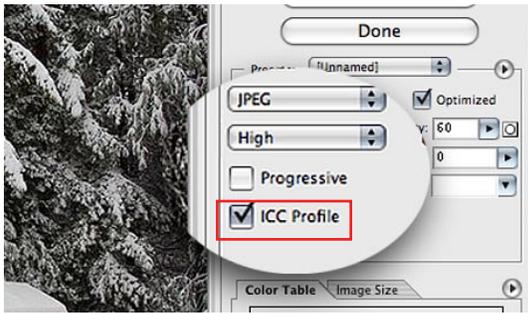


Figure 3. The Embed Color Profile option in Photoshop CS3's Save for Web dialog. For web images you need to convert to profile before entering the Save for Web dialog.



Figure 4. The Embed Color Profile option in Photoshop CS4's Save for Web dialog. Below this is an option to convert to sRGB (see **Figure 5**).

Converting Web Images to sRGB in Photoshop CS4

In Photoshop CS4 there is a very useful feature to convert to sRGB directly within the Save for Web & Devices dialog. This eliminates the need to use the Convert to Profile dialog described earlier. You can find this directly below the Embed Color Profile check box. Also useful is a drop down menu with various options to control how much metadata is saved with the file (**Figure 5**).

By converting images destined for web or email display to sRGB you can ensure that their appearance will be as close as possible to how you want them to look. To save time these options could also be included in an Action for prepping images for web display.



Figure 5. The Convert to sRGB and Metadata options in Photoshop CS4's Save for Web dialog.

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