

My Color Management Policies

By Robert Lay

10 December 2005

Revised: 12/11/05

Introduction

[The basic information in this document was extracted from the Adobe Photoshop CS Help File and paraphrased and modified to fit my personal needs.]

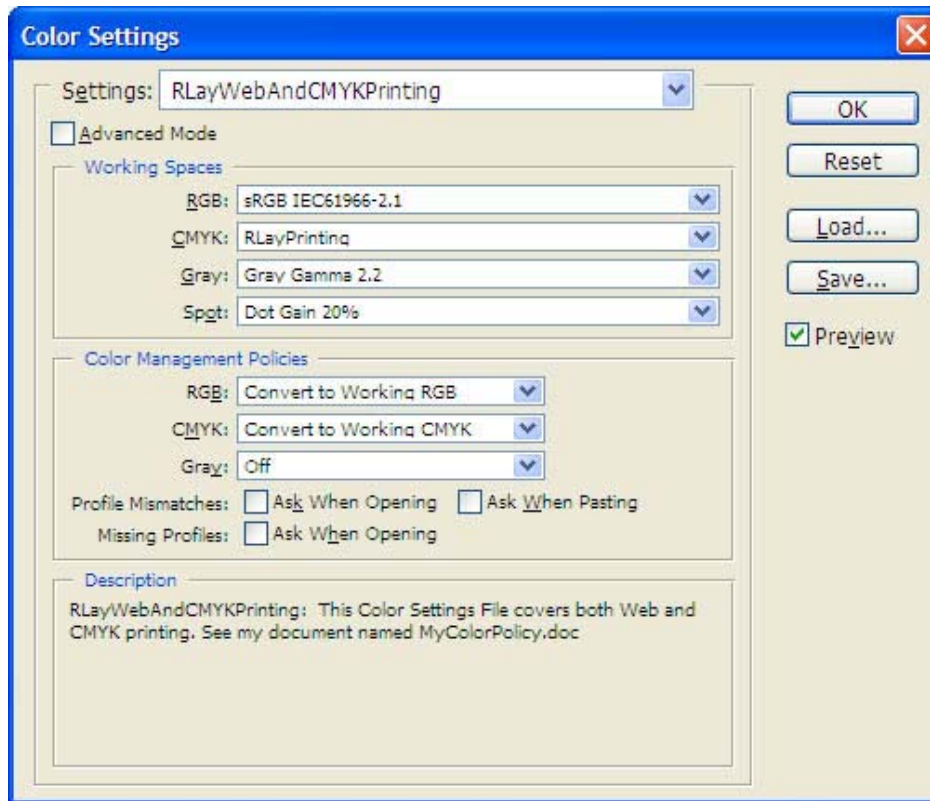
Most browsers do not recognize a document's embedded profile. They simply send the raw RGB values to your monitor. Without a profile, a computer's color management system must guess what colors a document's RGB values actually represent. Although it may seem impossible to produce consistent colors in an image for the Web, there are some things you can do to keep the colors as consistent as possible.

This document provides guidance only for images being prepared for the Web.

For guidance on images being prepared for printing, please check the last paragraphs of this document. However, for RBB printers, the policies and procedures suggested here, up to the paragraph titled "Save for Web", may be followed.

Keeping Colors as Consistent as Possible in Web Images

- Calibrate and profile your monitor. Use a visual calibrator like Adobe Gamma (Windows), Monitor Calibrator (Mac OS) or, for more precision, use third-party software and hardware.
- Choose Edit > Color Settings (Windows) or Photoshop > Color Settings (Mac OS) and specify the color management settings.



You can either choose Web Graphics Defaults from the Settings menu in the Color Settings dialog box or customize the settings. I choose to use sRGB for my working space. sRGB is a smaller color space than Adobe RGB (1998) and supposedly represents the profile of the average monitor. Tagging your image with an sRGB profile increases the possibility that more monitors will correctly display the colors in your image.

Under Color Management Policies, I chose “Convert the document to sRGB profile”. That means that when I open an image in PSCS for which the embedded profile is either missing or different from sRGB, it will be automatically converted to sRGB.

If you have an image that's tagged with a profile other than sRGB, converting the profile to sRGB provides a better chance of maintaining a consistent appearance on a wide variety of monitors.

The check boxes under Color Management Policies govern whether or not you will be prompted for confirmation of conversion to sRGB. I leave all of those checkboxes unchecked, so that conversion to sRGB is done automatically, if necessary, whenever a file is opened.

When creating a new document, if for any reason it is necessary to manually convert an image to the sRGB profile, choose Image -> Mode -> Convert to Profile and choose sRGB for Profile under Destination Space. Do not use Image -> Mode ->

Assign Profile..., because that does not actually change the pixels and could cause the image to change its appearance on your screen.

Save for Web

Choose File > Save for Web.

The Save for Web command gives you more control over the optimization of your image. You can specify the colors that are preserved when saving an image in GIF or PNG-8 format.

In JPEG format, you have the option of embedding an ICC profile in the file. Currently, only Internet Explorer (Windows) and OmniWeb (Mac OS) can read embedded profiles in images if the user enables the ColorSync option in the preferences.

If an image has no embedded profile, Internet Explorer (Windows) and OmniWeb (Mac OS) assume the sRGB profile for the image.

If you have followed all procedures above, the sRGB profile will be embedded in the image.

Alternate Save Options

Save for Web has the disadvantage that EXIF data is not included in the file. If you want the EXIF data to be included, I recommend the following steps:

Make sure that the image is in 8 bits per channel mode using Image->Mode and select "8 bits/channel".

Size the image to the desired size in pixels, if necessary, using Image->Image Size (check the box "Resample Image"). Remember that for a post to POTN to be hosted by POTN, the maximum dimension is 800 pixels. If you are just providing a link to an image posted elsewhere, that limit does not apply. Also, remember that a JPG image hosted by POTN must be under 100 kB. You should be careful in your choice of JPG Quality setting in order to stay inside the POTN guidelines.

Printing on Home Printers

As indicated in the introductory section, RGB printers do not require any special treatment. The file as was prepared up to the point of Saving for Web can be sent directly to an attached or network printer.

Sending Images to Commercial Offset or Web Press *(Note that Web Press has nothing to do with the World Wide Web)*

Choose Edit > Color Settings.

Under Working Spaces->CMYK: select “Custom” and fill out the Custom CMYK window to provide whatever parameters are needed by the shop doing the printing.

Under Color Management Properties-> CMYK: and select “Convert to Working CMYK”.

When the document is ready for conversion to CMYK, use Image->Mode->CMYK Color. After the conversion save it like any other image (using a filename that indicates the CMYK mode).