

Three Photoshop Features

The History Log: Edit > Preferences > General > History Log

To keep track of your Photoshop time and activity.

1. **Enable the History Log for general purpose time logging**
 - a. Edit > Preferences > General > History Log > Metadata, Sessions Only
 - b. Open an image (**Image #1.jpg**), edit, and close the image
 - c. File > File Info > History

2. **Enable the History Log for concise edit logging**
 - a. Edit > Preferences > General > History Log > Text File, Concise
 - b. Open an image (**Image #1.jpg**), edit, and close the image
 - c. Bridge: open **Photoshop Edit Log.txt**

3. **Enable the History Log for detailed edit logging**
 - a. Edit > Preferences > General > History Log > Text File, Detailed
 - b. Open an image (**Image #1.jpg**), edit, and close the image
 - c. Bridge: open **Photoshop Edit Log.txt**

The Lens Blur Filter: Filter > Blur > Lens Blur

To create a non-linear blur simulating the depth-of-field blur from a camera lens.

Controls

- **Depth Mask Source:** determine what is used as the Depth Mask; an Alpha Channel is best
- **Blur Focal Distance:** select the brightness of the Depth Mask that does not produce a blur; all values above and below this value are blurred
- **Depth Mask:** a grayscale image to define the amount of image blur as a function of the Blur Focal Distance
- **Iris:** the type of camera iris being simulated, i.e., a specific blur pattern
- **Specular Highlights:** boost the brightness of all pixels brighter than a threshold value to simulate bright out-of-focus reflections; set Brightness > 0 and Threshold < 255 to be effective
- **Noise:** add noise to the blur to replace the original film or digital noise lost when the image is blurred
- **Distribution:** the type of noise

1. Blur everything behind a foreground subject using an Alpha Channel and a Layer Mask

Subject



Foreground-----Background
Depth Mask: Black-----Gray-----White
Blur: None-----Partial-----Full

- a. Open Image (**Lens Blur #1.psd**) and duplicate the image
- b. Insure foreground/background colors = black/white
- c. Channels palette: add a New Channel, Alpha 1 and select RGB to view all channels
- d. Gradient tool: create a vertical black (from 1” up from bottom thus keep all foreground in focus) to white (to top for the maximum blur) gradient on the Alpha 1 channel
- e. Channels palette: deselect the Alpha 1 channel
- f. Select the Layers palette and the Background Copy layer
- g. Filter > Blur > Lens Blur > Source = Alpha 1, Blur Focal Distance = 0 (Black), and adjust the other parameters as needed

The image remains sharp where the Depth Mask is black and the image’s blur increases as the Depth Mask lightens

- h. Layers palette: add a Layer Mask and paint the mask black over the foreground subject to keep it sharp

Note: The use of the Layer Mask is flexible but sometimes a faint blurred outline of the in-focus main subject can be seen on the boundary between the subject and the blurred background.

2. Blur before and behind a mid-ground subject using just an Alpha Channel

(Subject)



Foreground-----Background
Depth Mask: Black-----Dk Gray-----White
Blur: Partial-----None-----Almost Full

- a. Open Image (**Lens Blur #2.psd**) and duplicate the image
- b. Insure foreground/background colors = black/white
- c. Select the subject, apply a 2-pixel feathering, and invert the selection
- d. Channels palette: add a New Channel, Alpha 1, and fill the selected area with white
- e. Select RGB to view all channels, deselect the Selection
- f. Gradient tool: set Blend Mode = Multiply, create a vertical black (from an area just behind the subject) to white (to top for maximum blur) gradient on the Alpha 1 channel
- g. Gradient tool: set Blend Mode = Screen, create a vertical black (from an area just in front of the subject) to gray (to below the bottom for a partial blur) gradient on the Alpha 1 channel
- h. Channels palette: deselect the Alpha 1 channel
- i. Select the Layers palette and the Background Copy layer
- j. Filter > Blur > Lens Blur > Source = Alpha 1, Blur Focal Distance = 0 (Black), and adjust the other parameters as needed

Note: The use of just the Alpha Channel does a better job but is inflexible in that once the Lens Blur is performed, you can not go back to clean up small errors in the Alpha Channel.

ICC Profiles

Don't even worry about ICC Color Profiles until you calibrate your monitor!!

- **Gamut:** the range of colors that can be utilized by a given device
- **ICC Color Profile:** a numeric definition of a colors for a given device (e.g., Epson 2200 with Matte paper, a monitor); color profiles may be calculated or obtained from manufacturers
- **Rendering Intents:** the method used to convert color data from one color space into another color space, especially when a source color is not found in the target color space
 - **Perceptual:** source colors are scaled to fit within the target color space; colors may be modified but the relationship between colors remains unchanged – best for photographic images with many out-of-gamut colors or significant shadow detail
 - **Relative Colormetric:** source colors within the target color space are not changed; source colors outside of the target color space are mapped to their nearest in-gamut color, usually with less saturation and a lighter color – best for photographic images with few out-of-gamut colors
 - **Absolute:** source colors within the target color space are not changed; source colors outside of the target color space are mapped to their nearest in-gamut color - the color white may not be mapped correctly; not too useful
 - **Saturation:** convert colors attempting to maintain maximum color saturation – best for business graphics and charts; not for photos

Real-world example: R255/G0/B0 is red. On a monitor, R255/G0/B0 produces the maximum red that the monitor can produce. On a print, R255/G0/B0 is the maximum red that the printer can produce, which is very different from the red displayed on a monitor. In this specific example, R247/G3/B0 *might* be the proper monitor value to produce the maximum red of this printer.

What can be done?: create a standard, an ICC Color Profile, for representing specific colors, the CIE LAB definition, and use this standard to modify image data to produce expected colors.

How do I do this?: for each device in the photographic process, assign an ICC Color Profile and convert all external image data into and out of this standardized definition of color.

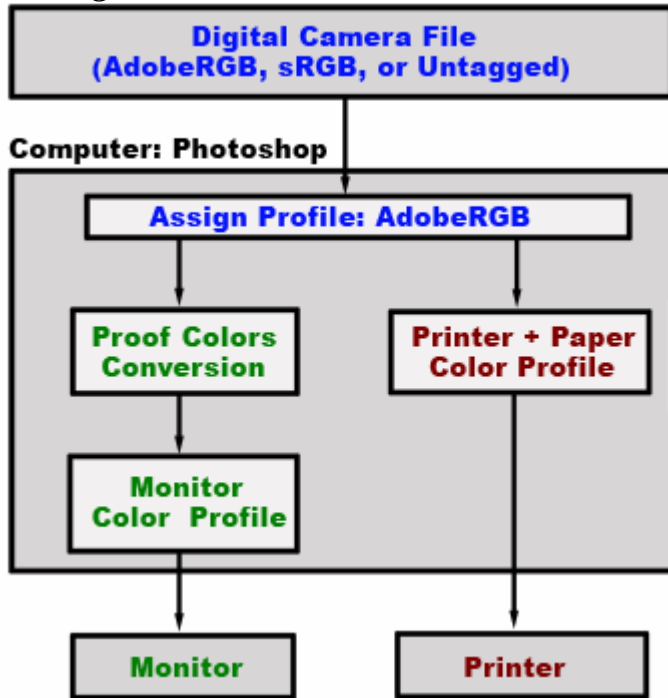
For example,

1. You photograph a bright red subject
2. Your camera produces a sRGB image and the color value for this image is RGB=250,0,0.
3. You don't have a camera color profile and your Photoshop Working Space is Adobe RGB.
4. Photoshop retains the RGB=250,0,0 value but assigns the Adobe RGB color space which is a slightly different red for that value.
5. You manipulate the image such that the color value is now RGB=242,0,10.
6. Photoshop uses the data table of your printer and paper color profile to find the corresponding color value

Adobe RGB Values	Printer/Paper Values
242,0,10	251,0,12

- The color value for the printer is “in-gamut” and should be the same color as seen on the monitor. This color may or may not be the same as the color of the actual subject.

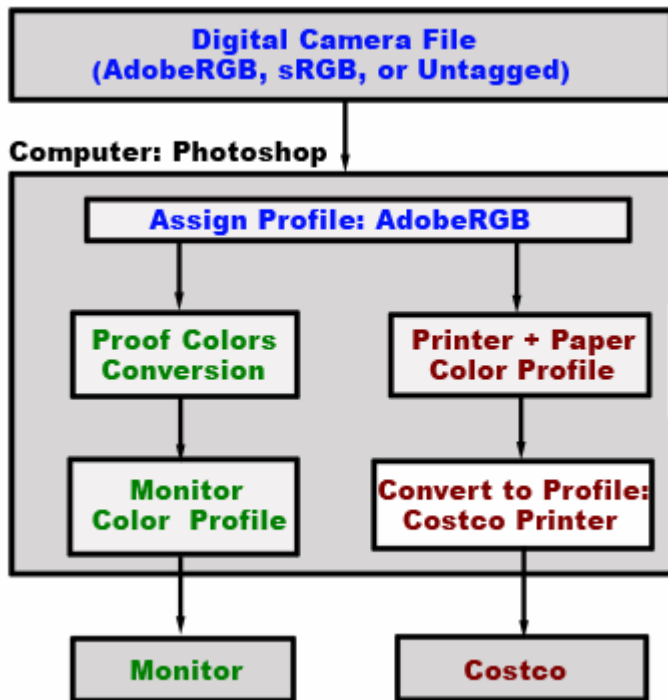
A Color Management Print Process



1. Calibrate your Monitor
2. Obtain a color profile for your printer and paper combination and store at,
 - o Windows XP, NT/2000: Windows\System32\Spool\Drivers\Color
 - o Windows 98/ME: Windows\System\Color
 - o Mac OS/X: /Library/ColorSync/Profiles
 - o Mac OS 9.x: System Folder:ColorSync Profiles
3. Photoshop setup: Edit > Color Settings >
 - o Working Spaces > RGB > verify that the Monitor RGB listing indicates that the monitor calibration has been performed (for an Eye-One calibrator, the date is shown)
 - o Working Spaces > RGB > Adobe RGB (1998)
 - o Color Management Policies > RGB > Convert to Working RGB
 - o Profile Mismatches and Missing Profiles: no check marks
4. Edit Master Image
5. Create Output Image in desired final image size, resolution, and format
6. View > Proof Setup > Custom >
 - o Device = your printer and paper combination profile
 - o Rendering Intent = Relative Colormetric or Perceptual
 - o Black Point Compensation = set
 - o All other boxes = reset
7. View > Proof Colors > make sure colors are OK
8. View > Gamut Warning > make sure no colors are out of gamut, if possible
9. File > Print with Preview >
 - o Print = Document
 - o CS: Color Handling = {a specific Color Profile}
 - o CS2: Color Handling = Let Photoshop Determine Colors, {a specific Color Profile}
 - o Printer Profile = your printer and paper combination profile

- Rendering Intent = Relative Colormetric (for most images) or Perceptual (if many colors out-of-gamut)
10. Printer Properties (for an Epson printer) >
- Color Management = ICM
 - ICC/ICM Profile = Off (No color management)
 - Use the equivalent settings for a non-Epson printer

Having a Print Made at Costco



1. Calibrate your monitor
2. Obtain the Goleta Costco Printer Profiles for the various papers at www.drycreekphoto.com and store as described above
3. Create the image at 300 dpi in high-quality jpg format
4. Use Image > Canvas Size to make the size fit a standard Costco print (e.g., 12"x18") even if the image doesn't fill the entire print size; the printer may crop 0.1" around the edge
5. CS: Image > Mode > Convert to Profile > the Costco/paper profile
CS2: Edit >> Convert to Profile > the Costco/paper profile
6. Correct the image's color as needed
7. Upload the image file to www.costcophotocenter.com
8. Pick up print at the Goleta Costco store

How do I really learn Color Management?

- Read a book: Real World Color Management by Bruce Fraser
- Take the one-day class from Derrick Bruce, Agave Studio, 805-963-4066 (note: Derrick can also perform color calibration of your display and printer/paper combinations)