



Soft Proofing in Lightroom

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Soft proofing is the process of previewing what a print should look like, using your screen. This gives you an idea of what kinds of changes can occur with your image when it's printed, before you actually commit ink to paper. It allows you to make any kinds of adjustments necessary to optimize the image for print. In this lesson, we'll first cover the general concepts of soft proofing and then we'll move on to learn the process.

Profiles are the key

Document Profile: Make sure that all programs know what the colors in your image should look like. (sRGB, Adobe RGB, ProPhoto, etc.)

Display Profile: This is used to educate the computer of any odd quirks in how your monitor displays color so that it can compensate:

1. Ensure that the neural gray in the file is actually gray on screen.
2. Brightness is uniform across the full brightness range.
3. Adjust max brightness to an acceptable range.

Printer Profiles: These are used to educate Photoshop & Lightroom about quirks in how the printer/ink/paper combo reproduces color/brightness so it can preview the results and get the most accurate prints possible.

Color Management = Using profiles to get consistent and predictable color.

Printer Profiles

- You need a separate profile for each printer/ink/paper combo
- This profile describes the paper color.
- It also describes the blackest black for that ink/paper combination.

- It knows the color of CMYK ink after it has absorbed into the sheet of paper.
- It knows what different ink combinations look like at all sorts of percentages (10%C + 30%M + 5%Y = whatever)
- Printer profiles are used to more accurately reproduce colors when printing.
- They're also used to preview what a print will look like (known as soft proofing).

Obtaining Printer Profiles

- For desktop printers, you'll get the profiles from the paper manufacturer.
- For sending images to a printmaking company, look on the website under FAQ, Help Center, Color Management or Soft Proofing.
- If the file name ends in .ZIP, double-click on the file to uncompress it before installing.
- Mac install location: HD\Library\ColorSync\Profiles
- PC Location: C:\Windows\System32\Spool\Drivers\Color (or right-click and choose Install Profile)
- Restart Lightroom after installing profiles.

Search terms to find profiles:

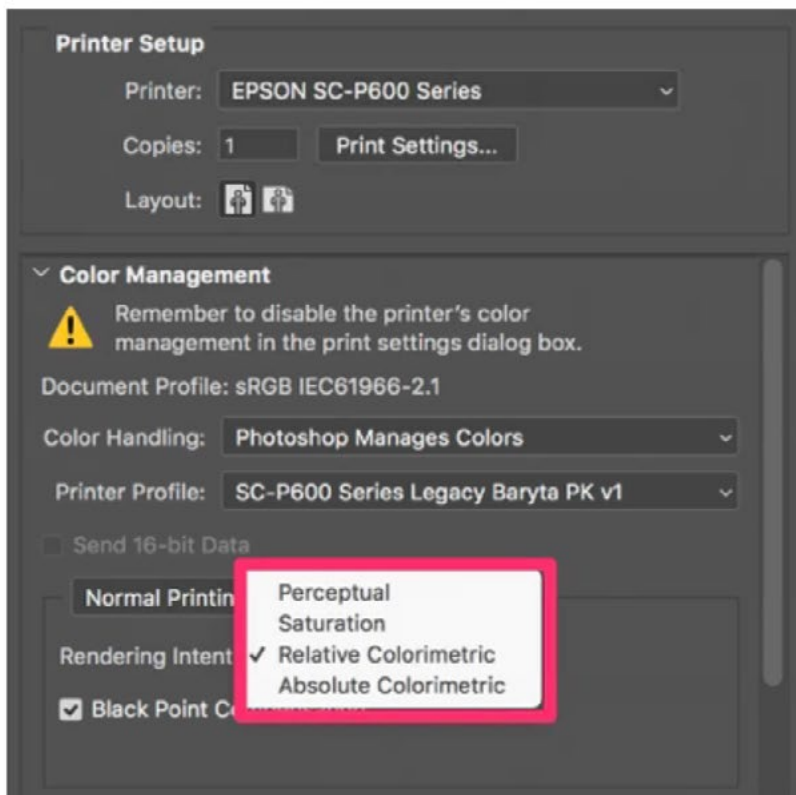
- Soft Proofing
- ICC
- ICC Profile
- Color Profile
- (or Google company name and soft proofing)

Call to inquire about profiles

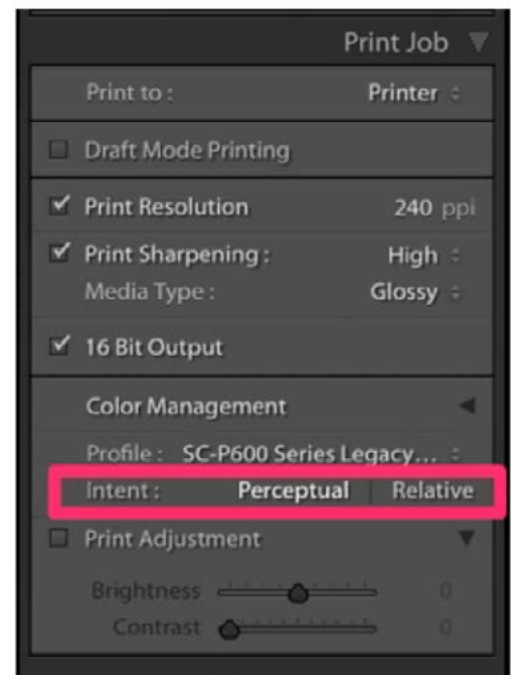
If you can not find the profiles you need by searching the web, call the company that will print your photos and ask who you can talk to about getting color profiles for soft proofing. It's also a good idea to ask then whether you should use a perceptual or relative rendering intent when soft proofing. This is a choice that you'll find within the print dialog.

Rendering Intent Why does it matter what rendering intent the printing company uses? Because what they choose here when they print will change the appearance of the results. If we don't know what rendering intent they'll use, then we're just guessing and we can't accurately perform the soft proofing process. Below, you can see where the rendering intent options can be found within the Photoshop and Lightroom print settings.

Photoshop Print Settings



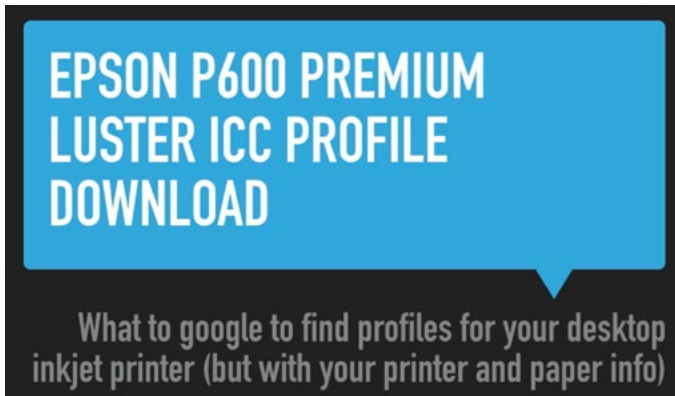
Lightroom Print Settings



You can see where the Rendering Intent settings are in Photoshop's print settings (left) and Lightroom's print settings (right).

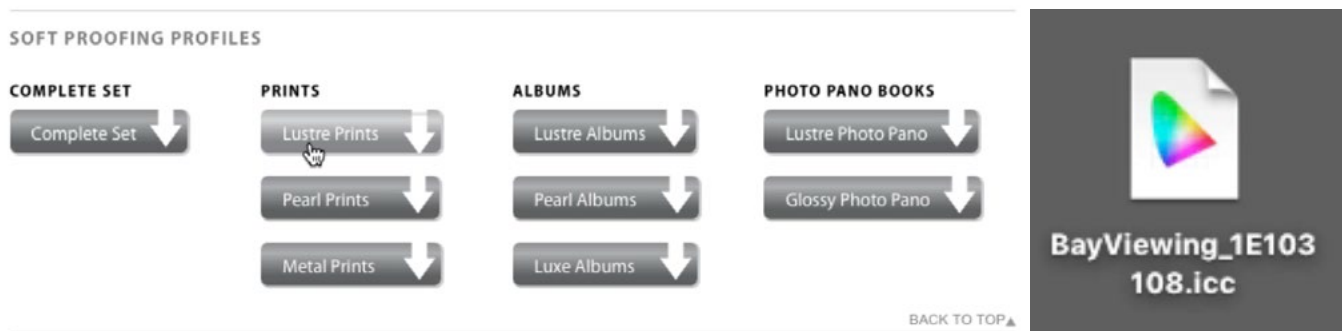
Can't find color profiles? If you can't find the color profile you're looking for on the web, do a Google search for the printer/paper combination along with the terms ICC Profile download.

Example:



Soft Proofing

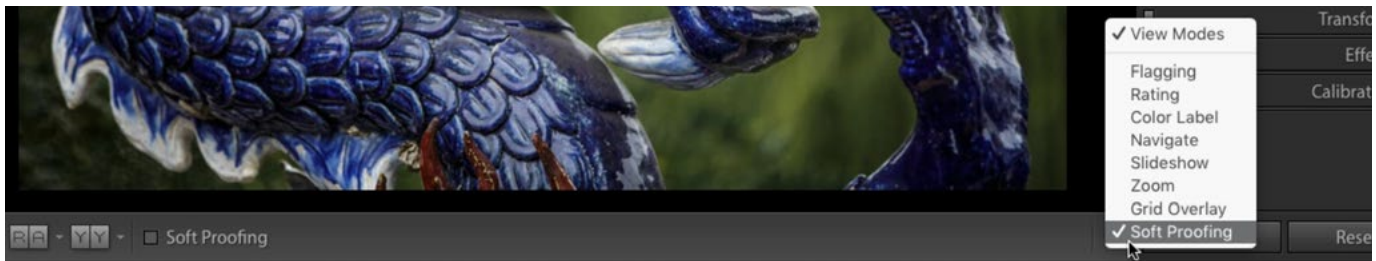
- It allows us to preview on screen what a print should look like before committing ink to paper.
- Need two pieces of info to perform soft proofing: 1: The color profile for the printer/ink/paper combo; 2: The rendering intent that will be used.
- It allows us to tweak the image to optimize what the print will look like.
- When doing your own printing, soft proofing can be used to determine what's the most ideal rendering intent to print with.



Left: A screen shot of the profile downloads on a printer's website. Right: A printing profile file on the hard drive.

Real-world soft proofing

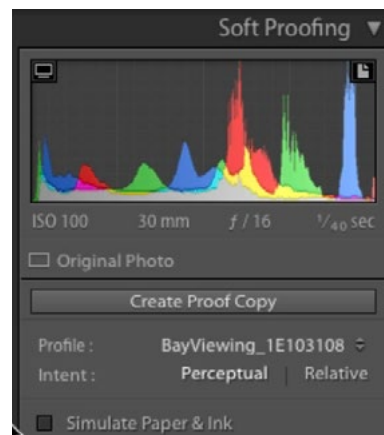
In Lightroom, you need to be in the Develop Module in order to do soft proofing. You will find the Soft Proofing check box in the Tool Bar that runs directly below the main image window. If the Tool Bar is not visible on your screen, go to the view menu and choose Show Toolbar. If the Soft Proofing check box does not appear, click on the little disclosure arrow on the right side of the Tool Bar. This will give you a menu that allows you to choose what appears in the Tool Bar.



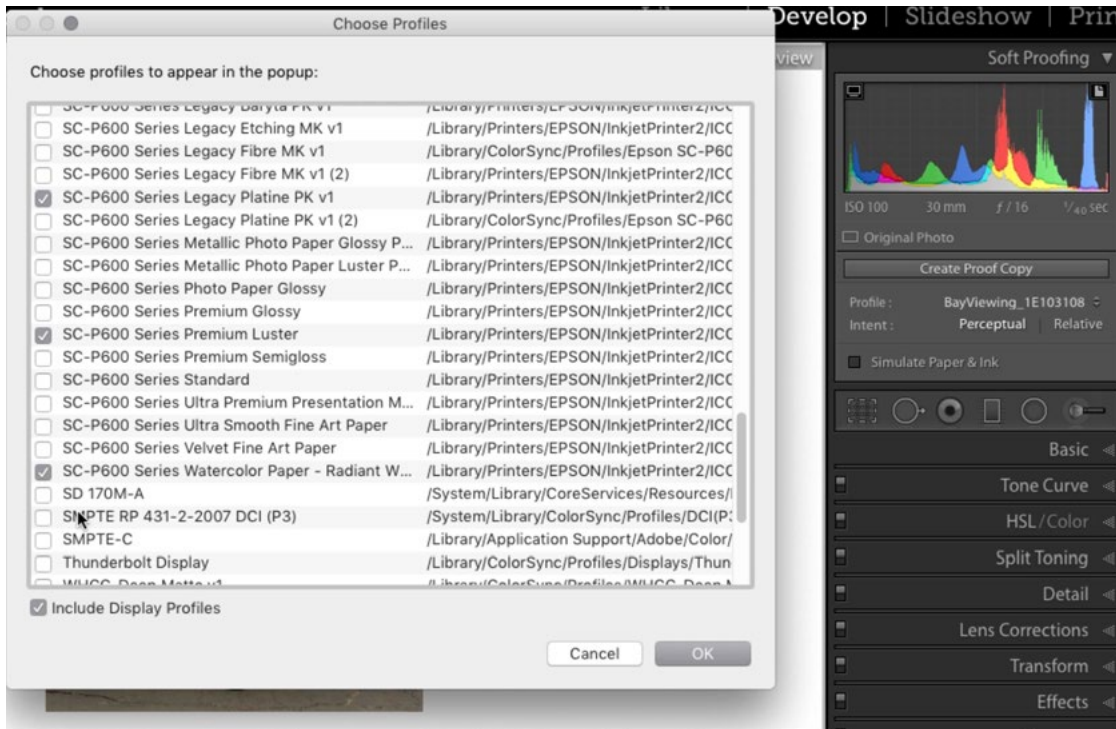
The soft proofing setting can be found in the Tool Bar below the image window. If it doesn't appear there, click the menu on the far right side of the Tool Bar and click on Soft Proofing.

When you turn on the Soft Proofing check box, the background will automatically change to white. This is supposed to represent the paper that the image will be printed on, but when it changes to white like this, I find that I have a hard time determining what changed in the picture. Because of this, I will change the background color of the Develop Module image window to white so that when I turn the Soft Proofing check box on and off, it's easier to focus on what's going on with the image. To change the background of the image window, right-click within that area and choose a color from the pop-up menu that appears.

When the Soft Proofing check box is turned on, some extra settings will appear on the right side of the screen. The Profile menu will allow you to choose between all of your installed profiles. If you find that one of your installed profiles doesn't appear in this menu, choose the "Other" option at the bottom of the menu. A dialog will ap-



When the Soft Proofing check box is turned on, these settings will appear in the upper right part of the interface.



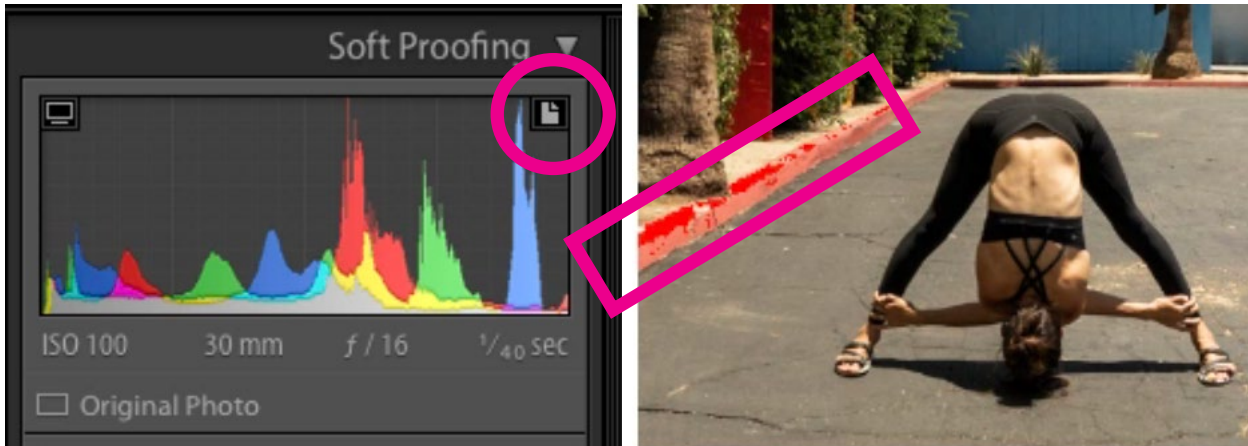
By choosing the “Other” option from the profile menu, you’ll get a list of all your profiles and you can specify which ones will appear in that profile menu.

appear that lists all of your installed profiles. Turn on the check boxes to the left of the profile names for all profiles you wish to be included in the menu. Then click OK. When you select a profile, your image will change to reflect it.

You’ll also want to turn off the “Simulate Paper & Ink” check box and if you are sending your images off to someone else for print, you will need to specify the rendering Intent.

Now, the purpose of soft proofing is to make sure your print looks the way you expect it to. Looking at the Proof Preview on screen, decide whether or not everything looks ideal to you. If things don’t look quite right, use the adjustment sliders to tweak the settings until the image is to your liking.

When evaluating your image, the histogram can be useful. There is an icon in the upper right corner of the histogram that will show you the destination gamut warning. If you hover your cursor over this icon, you may see red overlays covering certain areas of your image. What this means is that these areas are more colorful than the chosen printer is capable of printing. This doesn’t



When you hover your cursor over the destination gamut warning icon (circled), you will get a colored overlay that shows what areas were out of gamut and had to be changed in order to be printed using the chosen profile.

mean that you need to adjust your picture until the red overlay goes away. It just means that it's an area where the profile was forced to change the image because there was no way that it could produce the color that was previously there. If you're satisfied with how it looks in the proof preview, you can leave it as is.

Any time you make a change to your image while looking at the proof preview, Lightroom will ask you (via a pop-up box) if you would like to create a virtual copy for soft proofing. You will have three choices:

- Undo: Get rid of any changes and close the dialog.
- Create Proof Copy: Will make a virtual copy of the image so you have two versions, the original (before the soft proofing changes) and the copy, which will reflect the printing conditions specified.
- Make this a Proof: This will keep the changes that you make while in the soft proofing preview and it will keep this as the only version of the image. There will be no copy.



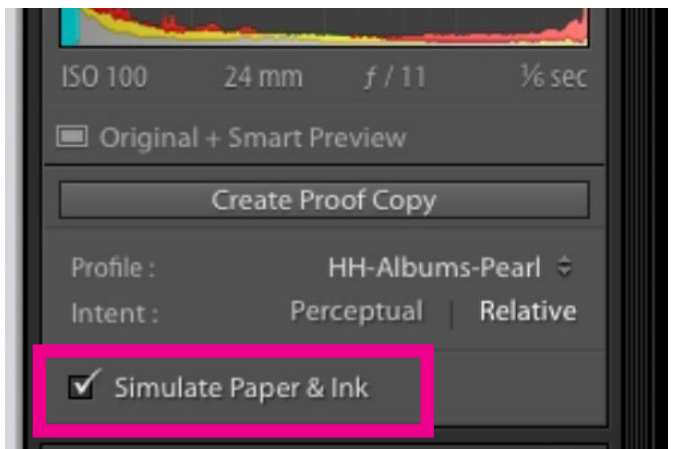
When you make a change to your image while in soft proofing mode, Lightroom will ask if you would like to create a virtual copy.



When you tell Lightroom to create a Proof Copy, the virtual copy will be named with the chosen print profile. This makes it easier to later remember what the virtual copy was created for.

If you are printing the image yourself, on your home printer, you will need to determine which rendering intent to use, perceptual or relative. This is just a matter of switching between the two and evaluating your image to see which you like better. It's a personal choice.

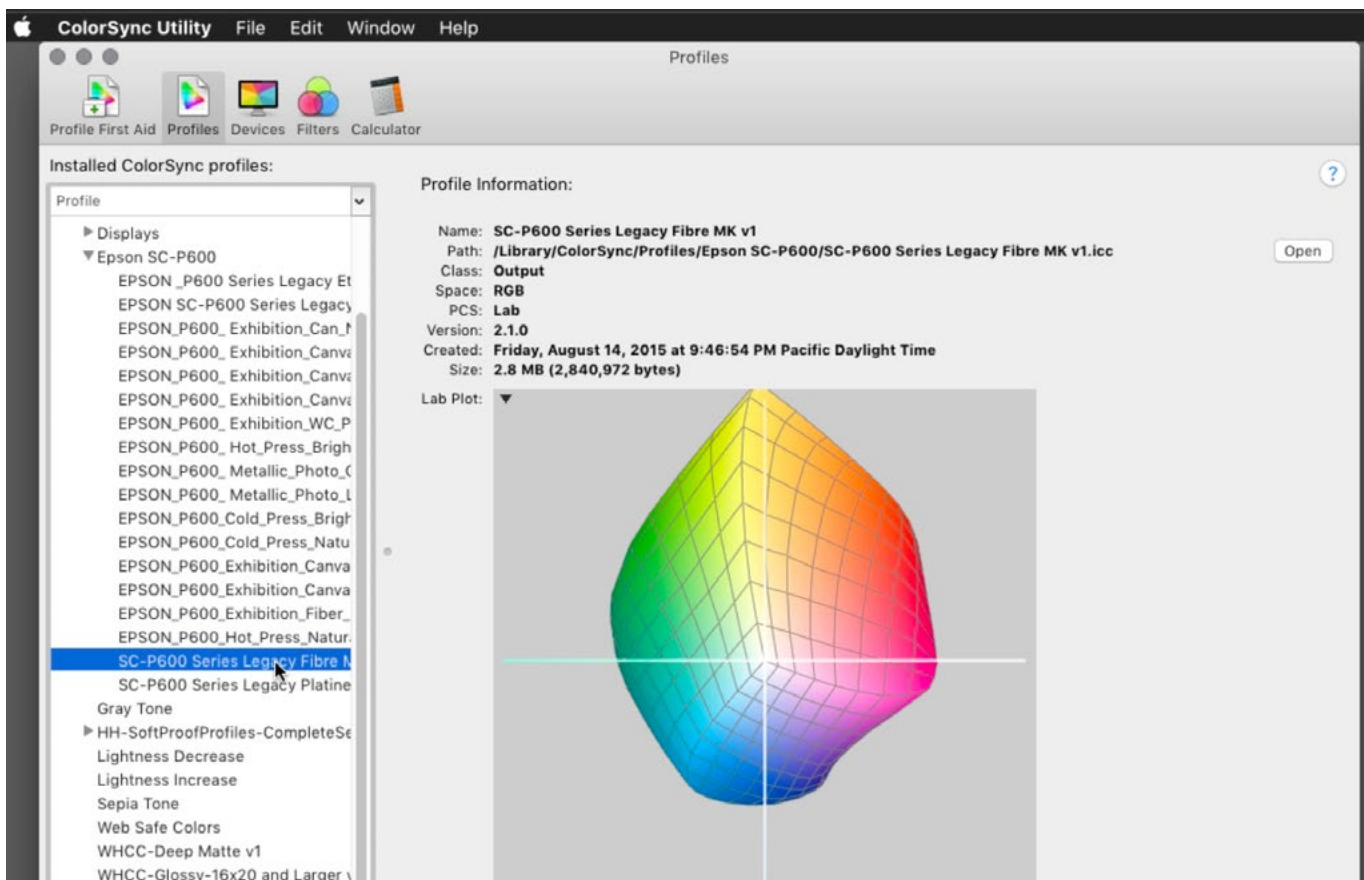
Simulate Paper & Ink I don't recommend turning this check box on when you start adjusting your image for soft proofing, particularly when you are adjusting for out-of-gamut colors. There are two situations where I would turn this check box on: 1) I've already made a print and I am going to hold it up to the screen to compare the print version with the screen version; 2) I have detail in the dark portion of my picture and am worried about whether I'm going to be able to see it or not.



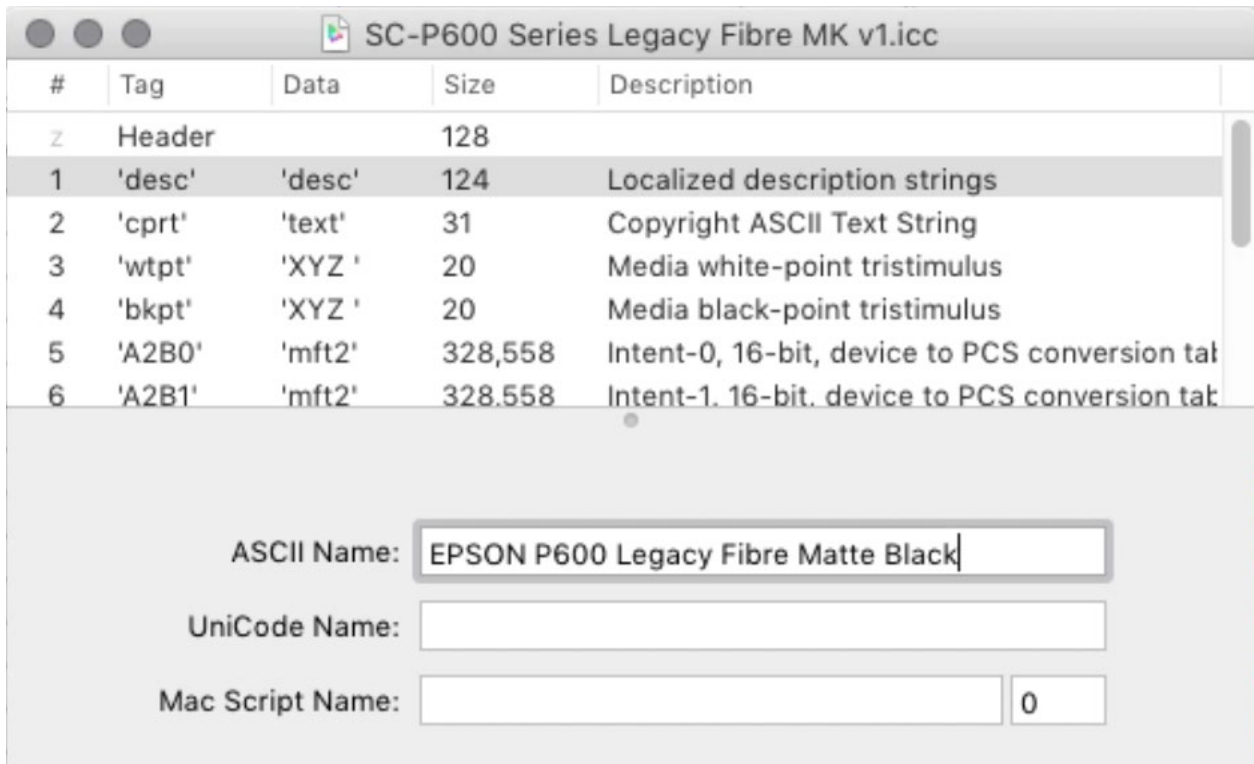
With two exceptions, I will leave the Simulate Paper & Ink check box off.

Renaming Profiles

The names given to profiles by printing companies may seem confusing, and you may have a hard time remembering what the different profiles are just by seeing the names in a menu. If this is the case, you can rename the profiles so that it's more obvious as to what they're for. Every Mac has a program called the ColorSync Utility and this is what you'll use to rename the profiles. With the ColorSync Utility open, make sure that the Profiles option is chosen from the icons at the top. Then, all of your profiles should appear in a list on the left side of the interface. This will include all profiles, so you'll need to scroll up and down until you find the printer profiles. To change the name of one of the profiles, click on the profile in the list on the left. Then click the Open button that will appear in the upper right area of the interface. A dialog will pop up that includes a confusing-looking list of data.



The Color Sync utility lists all profiles on the left. To change a profile name, click on the profile to make it active and then click the Open button on the right.



Rename the profile by re-entering the text in the ASCII Name field, within the ColorSync Utility.

Click on the 'desc' item and you will see a text field, titled ASCII Name, appear below the list. Use this text field to type in the name that you would like to assign to the profile. Then go to the File menu at the top of the screen and choose Save. (Note that this app can be finicky, so you may end up with some errors before it successfully saves.)