Soft proofing helps you see how your image will look on paper. The first version usually looks horrible. Here's how to make the proof look the way you want it to.

How to edit a soft proof

With good ICC profiles for your display and printer, and proper viewing conditions, soft proofing can yield a better than 90-percent match between the onscreen image and the printed version—an emissive display and reflective print will never match perfectly.

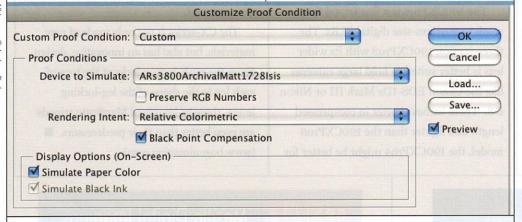


Figure 1: The Customize Proof Conditions dialog is configured for matte paper on an Epson Stylus Pro 3800 printer using a relative colorimetric intent with Simulate Paper Color on. You can save this as a custom setting for future use.

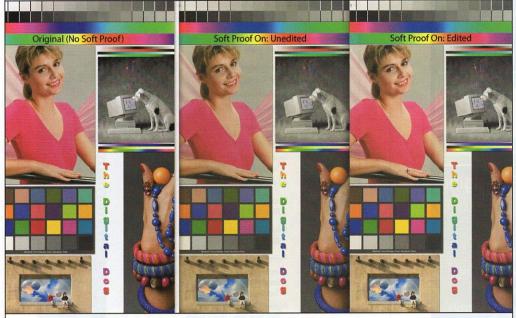


Figure 2: Left, the original image with no soft proof. Center, the same image with the custom proof setup from Figure 1 turned on. Right, the image with the edits from Figure 3; it's hardly identical to the original, but it's much better than the center image.

The goal is to come as close as possible, which takes some output-specific image editing based on its appearance with and without the soft proof function turned on.

For the best results, your ICC profiles should accurately define the condition of both your display and your printer, and appropriate and controllable print viewing conditions near the display. The luminance and white point of the viewing conditions and display must also be correctly defined when you build the profiles. If you're not familiar with soft proofing, use the links to my previous columns listed at the end of the article.

Let's begin with a print-ready image. You've made all the tone and color adjustments for ideal color reproduction based on the image's working space. This is a master image that you can use for output to any number of devices, whenever you need to. Now mentally draw a line to separate the master image from all output-specific edits, including sharpening.

Now open the master image and make a duplicate (Image > Duplicate). Name it Before View. Arrange the two documents side by side, filling as much of the display as you can while retaining access to your Photoshop tools. Place the master image to the right of Before View, which you'll eventually discard. You'll make your edits on the master.

Select View > Proof Setup > Custom... to bring up the dialog in **Figure 1**. Select the output ICC profile for the printer and paper you're using. Now toggle the rendering intent menu between Perceptual and Relative Colorimetric, and select the one that gives the image the color appearance you prefer.

Select the Simulate Paper Color checkbox and behold a rather ugly preview. You can call this checkbox "the make my image look like crap button," but it gives you a far more accurate onscreen preview of the printed version with its contrast ratio of paper and ink. Let your eyes adjust for a few seconds, and acknowledge that sometimes reality sucks. That's why we have Photoshop in the first place. Our goal is to edit the soft proof simulation of the image until it looks closer to the image on the left. Remember, you'll never get an exact match.

Make all of the edits on adjustment layers, starting with the curves (Layer > New Adjustment Layer > Curves...). I can usually counteract some of the effects of the paper simulation with a slight curve adjustment in the upper 3/4 tone. Make other curve edits as appropriate for the particular image. I can't get the appearance of the original, but I can make improvements (**Figure 2**).

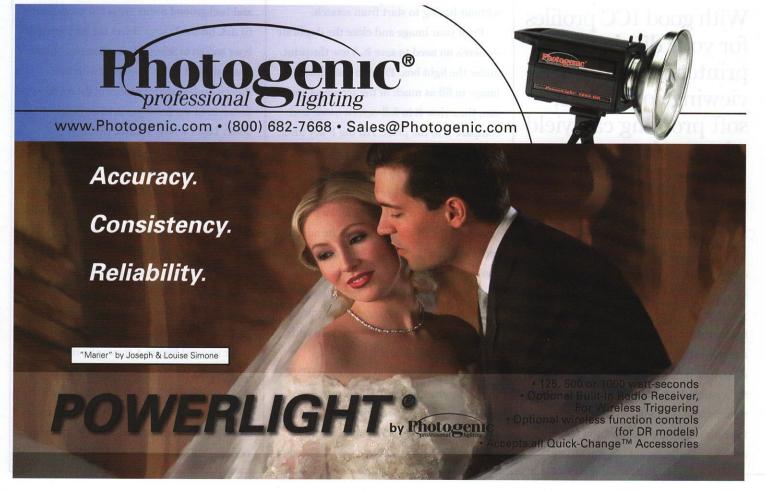
Now make a Hue/Saturation adjustment layer. A small global saturation increase, about +3 to +8, helps; I know I'm fighting an often massive difference in color gamut among the working space, display and printer. With some colors and tones, no amount of work will get us back to the original appearance.

The selective colors in Hue/Saturation can also be useful. Often, a blue sky appears slightly cyan or magenta in the soft proof. I correct this by making a separate Hue/Saturation adjustment layer, selecting a color range from the pull down menu (Blue, not the Master), and moving the hue slider a few degrees one way or the other. You'll see why it's wise to keep each edit on a separate, labeled layer, as in **Figure 3**.

Place all the adjustment layers in a Layer Group (click on the folder icon in the Layers palette and drag the adjustment layers onto the new group folder). Give this group the same name as the profile and ren-



Figure 3: The Layer palette shows the group of adjustments used in Figure 2. The layer group is named for the output profile and rendering intent selected in Figure 1.



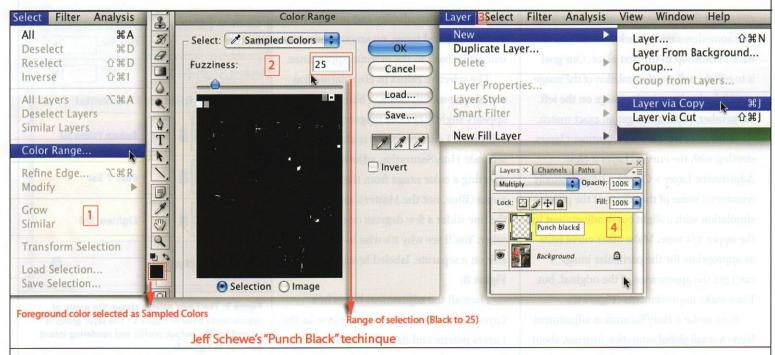


Figure 4: Follow these steps for the Jeff Schewe Punch Black technique.

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dering intent, as in **Figure 3**. When you want to print this image on a different printer, you'll make a new layer group with edits for that printer. You could eventually have a number of layer groups with output-specific edits, and turn on only the one you need for a particular printer and paper combination. You can also drag and drop a layer group from document to document. You can double-click on an adjustment layer to alter it,

without having to start from scratch.

Print your image and close the duplicate—there's no need to save it. View the print under the light box. Enlarge the edited image to fill as much of the screen as you can, then view it in full-screen mode and compare it to the print. Hit the F key until the image is totally surrounded by black, and hit the tab key to hide the palettes. That's the best way to evaluate the match between the onscreen image and a print.

If you don't want to store all the adjustment layers and groups in each document, you can store them in one blank, low-resolution Photoshop document and simply drag and drop them onto your images when you're ready to print. (I prefer to keep them with the master image.)

Here's one more good trick, especially for matte papers, that I learned from Jeff Schewe, who runs the awesome Photoshop News Web site, photoshopnews.com.

Open your image. Make sure the foreground

and background colors are set to the default (if not, hit the D key). Select the background layer and go to Select > Color Range... Notice that Sampled Color is selected with black (foreground) to start the range of the selection. Enter 25 in the fuzziness field and click OK. Select Layer > New > Layer via Copy (cmd/ctrl-J) to place this range of dark colors onto a layer of its own. Name this layer Punch Blacks, and set the Blending mode to Multiply. Only the range of darks from 0 to 25 will go darker, which often produces a better or truer black on the final print. This really helps with matte papers, but try it with glossy, too. Just like the other output-specific tweaks, this one should go into its own layer group; you can't copy and paste this onto other images! Figure 4 shows the steps.

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