

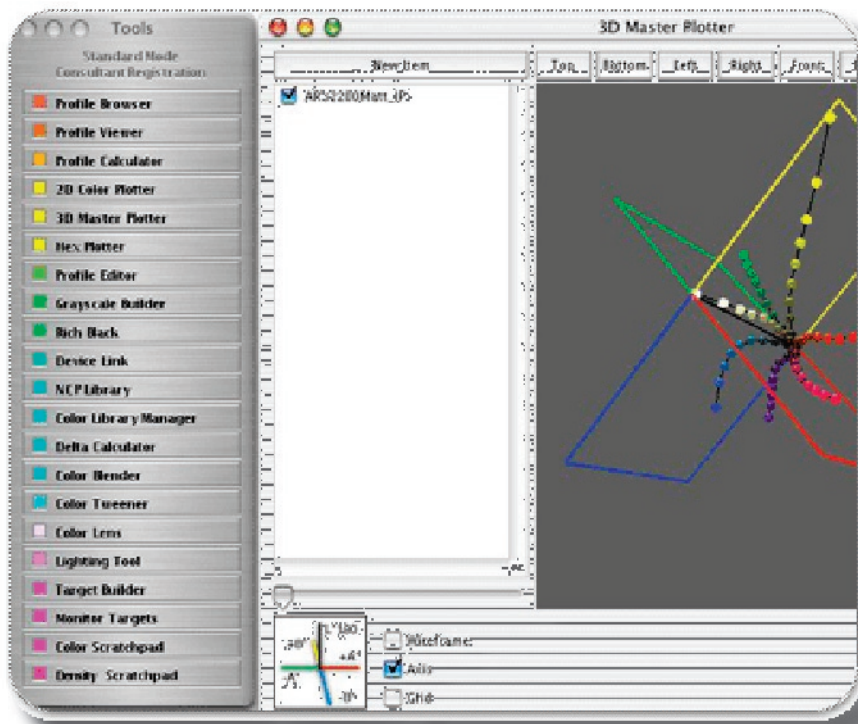
Color Geek utilities

I've just recently received a few new utilities aimed at color geeks and wanted to post a short review. Each utility is quite different and each has some unique features that may be useful for those who are building their own profiles or simply want to get a better idea of how their profiles work.

ColorShop X

This product is the long awaited update to the original ColorShop from X-Rite. ColorShop has been around on the Macintosh since the first true Spectrophotometer I used (the ColorTron) appeared a good nine or ten years ago. Originally bundled with the ColorTron from LightSource, X-Rite purchased the technology and not much happened until the new release. ColorShop is a Swiss army knife of 21 different color tools. Some of the tools are for analysis of ICC profiles while others are for creation of new profiles. Some tools are aimed squarely at designers or those that need to measure color from the outside world and produce new colors to use in other applications.

Some of the modules are more useful than others and some tools are made for different declines (photographic, graphic design, printing etc). There is a nice 2D and 3D gamut viewer, which seems all too common today. The original ColorShop may have been the first however. This version has all the bells and whistles to plot multiple profiles on top of each other, view the guts of a profile (private tags, media white point and so on). Users can edit many of these values if they are brave and so inclined. I was able to actually edit not only the internal profile name (useful) but also the copyright tag (interesting!). I have to say from a profile-viewing standpoint I prefer ColorThink from Chromix and even GamutWorks (see below) but neither provides the editing abilities of ColorShop X.



The ColorShop X GUI

255 to 255. The X-Rite profile made all whites move to 240. X-Rite agreed this was a bug and promised to fix it in a soon to be released update. For those with good RGB ICC profiles that want to produce a B&W conversion, this module might be something to look into once the bug is fixed.

The “Rich Gray Pigment” module is an interesting addition. Feed it your RGB Output profile and it will generate a new profile that will do a nice job of conversion to a “grayscale” RGB file. The newly generated RGB profile will create a new set of RGB values that will print neutral to the device and provide good color conversions (separation) from the original tones. I fed a Macth Color Checker through a profile I built for my Epson 2200 and the Rich Gray Profile produced very nice results separating all the color patches into different grays. The output to the 2200 wasn't totally neutral gray (you need ImagePrint for that) but the modified profile did a pretty nice job. The downside was the new profile produced some kind of scum dot on output. The original color profile correctly mapped

Another cool tool is the is called “Color Lens.” In a nutshell, it allows a user to view inside any application how a set of profiles (source and destination) will produce a color preview. Pick the two profiles and then a floating “lens” GUI appears where the user can move it about and see the effect of the profiles within the lens. Its actually pretty cool and could be useful for people that want to see how various profiles would affect the preview of images outside ICC savvy applications like Photoshop.

There are a number of modules aimed at designers. The “Color Blender” produces an average color among any number of sample colors measured. “Color Tweener “ allows a user to sample two colors and a new color is generated that is a balanced ratio between the two. Some of the tools like the “Lighting Tool” are great for teaching students about color. In this tool, you load a color sample (or measure using a supported X-Rite device) and tell the software what lighting you wish to see the color viewed under. The Lighting Tool will simulate on screen how the color will appear with say F-11 Fluorescent light would affect the color compared to a D50 light source.

The general GUI of ColorShop is certainly nice but not consistent. Some tools provide windows that resize, some don’t. The one’s that don’t seem a bit small considering the bare minimum size most users working with graphics toady is 600x800. The product also has a few bugs. I mentioned the “Rich Black Profile “issues. In the 3D gamut viewer, I found that after picking a profile to view the control buttons would stay grayed out until I clicked somewhere else and back to the tool after which they would redraw.

ColorShop cost \$495, a price point that I think will be a difficult sale for many users. On the other hand, some of the tools, like the Rich Black Profile generator for Grayscale profile building might be well worth the price of admission for some. The product only supports X-Rite hardware, which seems logical until you consider the price point. I would be far more willing to accept this price if the software was hardware agnostic and allowed an EyeOne, Spectrolino or Spectrocam support. X-Rite needs to figure out if it’s a hardware or software company and if both, then their software needs to be open to other Spectrophotometer s. Otherwise the price point needs serious adjustment. Still, its good to see X-Rite take the time and what has to be a pretty large engineering budget to update what was the original color analytical tool. At this time the software only runs under OSX but a PC version is due soon. Users can download a demo from the X-Rite site (http://www.xrite.com/product_overview.aspx?Line=16)

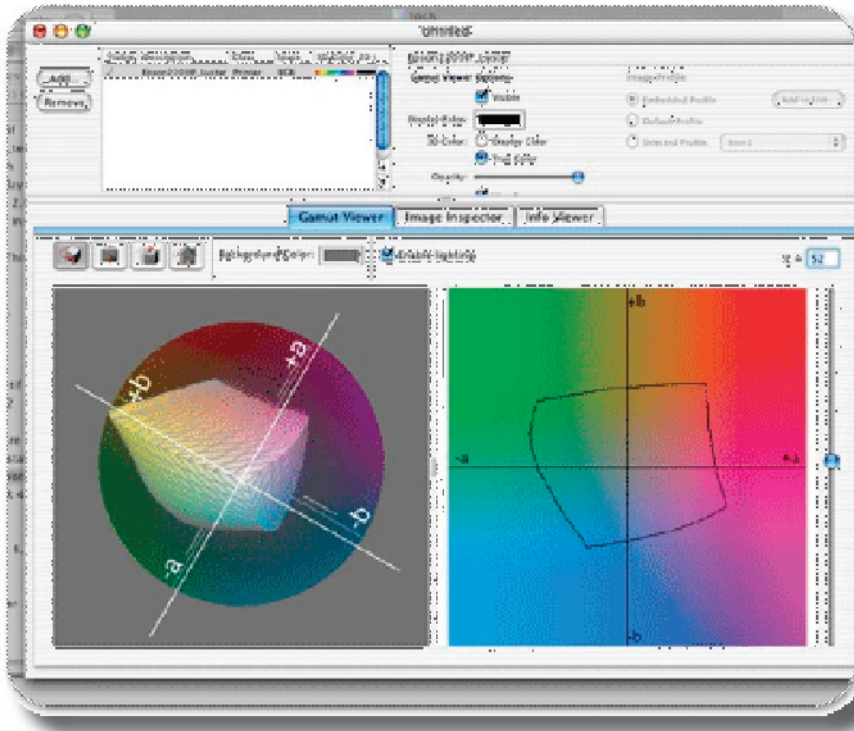
Monaco GamutWorks

This new utility is free to those Monaco users who own the Monaco’s higher end profile packages (Proof and Profiler). GamutWorks requires the “green” dongle to run. The utility is, as the name suggests a gamut viewer allowing the user to map multiple profile gamuts in 2D and 3D. The GUI is quite nice and Monaco has added the ability to map the gamut of actual image on top of profiles. This is somewhat useful and this capability is found in the superb \$99.00 ColorThink from Chromex. In fact a good deal of the functionality of ColorThink has found its way into GamutWorks although ColorThink has far more tools and features. For a free product to Monaco users, it’s a nice perk. If you own the Monaco suite, there’s little reason not to download the product. For other users looking for a powerful gamut viewer as well as a tool for repairing, organizing and looking into profiles, ColorThink remains supreme. A windows version was released recently. For more information on GamutWorks, go to <http://www.monacosystems.com/>

ColorPursuit

Anyone who’s read Bruce’s superb “Real World Color Management” should recall the chapter on how users can evaluate the quality of their ICC profiles. There are some complicated techniques using Logo’s ColorLab software where one can produce some statistical data on the round trip errors of a profile, which can be useful for evaluating the quality of the profile. The new ColorPursuit does this for you and provides some additional stats with not much more than a push of a button. The software can compare and provide three quality values from a profile. “Profile Quality” is calculated using the errors introduced by the profile tables and the software

provides quality index from zero to 10 (10 being a perfect score). “Device Quality” is calculated based on the color gamut of the device using the same scale. A device that has a wide gamut will be given a higher score. Lastly, “Color Reproduction” provides a score, which is calculated when an actual image is used inside the software and applied with the profile being inspected. The quality is evaluated by calculating the error between the chosen source image colors and their predicted reproduction. When ColorPursuit examines a profile, the accuracy of the Colorimetric and Perceptual tables are used for evaluations. Both an average and maximum deltaE values are provided (deltaE is a unit of difference between two solid colors. A deltaE of one or less is imperceptible to our eyes and a deltaE of 5-6 or less is usually considered a good match). The Quality Index is an easier statistic for beginning users to understand.



The Monaco GamutWorks GUI

ColorPursuit is a pretty niche, vertical market color geek product but I think its pretty cool and useful for evaluating ICC profiles. Some could say it's just a “on trick pony” but the trick is useful and a lot faster and easier than doing it manually with ColorLab. Certainly worth a download of the demo if you have the interest and run OSX. For more information, go to <http://www.alwancolor.com/english/products/colorpursuit.html>



The ColorPursuite GUI