

Four of Five

Color Management Buzzwords

Questions...and *Answers*

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By now, you are very interested in implementing color management, but you're not sure exactly where to begin. First, you probably have questions regarding color management, and some of the terminology used in publications and even user manuals. This article is going to be Q&A style in order to go through some color management buzzwords.

I understand that profiles define device capabilities, but where do they come from?

This is probably the most common question, and has the lengthiest answer. This profile idea is GREAT! However, where do we get the darn things?! There are essentially two kinds of profiles. Canned and custom.

Custom profiles are device specific. For example, a profile for your monitor is a custom profile. It doesn't apply to any other monitor but yours. For a printing press, a custom profile is for that press, ink, and paper used on that press. Other conditions, such as different paper or ink, and the custom profile won't apply.

Canned profiles are nearly the opposite. They apply to a range of devices. A canned monitor profile, for example, will apply to an entire model of monitors. A canned press profile will apply to SWOP (Specifications Web Offset Publications) on coated paper, instead of a specific press. It's a much more generic profile.

Canned profiles usually come from device manufacturers. This is becoming more common, so it's worth asking the manufacturer if they have ColorSync or ICC profiles for their products. Some profiles, such as press profiles for SWOP or for newsprint come from other sources, such as Kodak or Miro Displays (formerly Radius) and others. These profiles come packaged with other software.

Custom profiles come from profiling software and hardware. The hardware used for monitors is usually a colorimeter. The hardware used for printers and presses is usually a spectrophotometer. The hardware measures color from your monitor or printer, and reports it back to the profiling software where a profile is made. For scanners and digital cameras, they are the hardware themselves.

For a list of canned profiles, point your browser to: <http://www.apple.com/colsync/software/profiles>

Are custom profiles better than canned profiles?

It depends on your point of view. For monitors, a canned profile is better than no profile for your specific monitor model. However, using a canned profile for a different model can produce worse results. Therefore, care should be taken when using canned monitor profiles.

Canned press profiles are sometimes better than customer ones. Using good process control, and well defined printing specifications, printing presses should have less variation during a run and among different presses. This is not always possible, such as when printing on custom paper stocks. In such cases, using a custom profile will provide better results. So the short answer is, it depends.

How do I make custom profiles?

I recommend you join the ColorSync Users list-serve by going to the following URL:

<http://www.lists.apple.com/colsync.html>

Here you can join a list where you can read and post questions concerning custom profiles. Ask about remote profiling services. This is when you mail in a test target

to a remote profiling service and receive an ICC profile by email. This means you don't have to buy hardware or software yourself. It's a good resource for asking about the different profiling packages and hardware devices too. It's a great resource in general.

Where do profiles go so that applications can use them?

It depends on your version of ColorSync. If you are using version 2.5 or newer, they go in the ColorSync Profiles folder in your System Folder. If you are using an older version, they go in the ColorSync Profiles folder in your Preferences folder (which is in the System Folder).

What do I do with the ColorSync control panel?

Only two things. First, the System Profile is where you select your monitor's profile. This should be called "Monitor Profile" but it's not, it's called "System Profile." Next, change the "Preferred CMM" to anything other than Automatic. Automatic means the CMM used is left up to the default CMM specified in profiles themselves. This means you won't know what CMM is being used, and you can't determine which one you like best. So it doesn't really matter which one you select, just pick one other than automatic.

What is a CMM?

CMM stands for Color Management Module. They are "plug-ins" for ColorSync so that it can use different algorithms when using profiles to convert images from one color space to another. Huh? It's a "secret sauce" that each vendor claims is better than anyone else's "secret sauce." This remains to be seen. For the most part, there is very little difference in the results I see when using different CMM's.

How do I actually use a profile, or set-up my application?

Because of all of the different applications and methods applications have for configuration, I recommend first checking out documentation for your product. Next, go to that product manufacturer's web page and see if there is additional ICC support information. Also, join the ColorSync Users list and ask questions about product configuration there. Of course, readers are always

welcome to email me directly at:
help@colorremedies.com

Do I have to buy all new applications and hardware for this to work?

It depends. Monitors are unfortunately a throwaway item eventually. At some point in time, not more than five years in nearly all cases, the monitor must be replaced. Nevertheless, you don't need a specific kind of monitor, scanner, or printer.

As for applications, color management is easier when the application supports ICC profiles so you can obtain predictable color. The newest versions of Adobe Photoshop, Illustrator, PageMaker, QuarkXPress, Corel Draw, and many others, support ICC profiles.

What are embedded profiles?

An embedded profile is when an ICC profile is saved with your image, embedded in the same file. So instead of having a stand alone profile in the ColorSync Profiles folder, an embedded profile is "tagged" with the image itself.

It doesn't change the image by embedding a profile. All an embedded profile says is, "this is the color space for this image." A CMYK image meant for offset printing on coated paper would have an offset printing on coated paper profile embedded in it. It just tells us to what colors the values in the image equate.

What's the benefit of embedding profiles?

It would be just like embedding fonts in your layout instead of needing to remember which ones are used, and to save them to your removable disk separately from the document. Since the profile is embedded, you won't accidentally leave it behind when sharing files.

I share files with people outside of my workflow, do they need color management?

They probably need it, and definitely would benefit. However, it's not required. It is possible to implement color management without needing to involve others outside of your workflow. There are significant benefits if they are involved, but it's not required.

In a way it's analogous to supplying your own ink when getting a job printed at a printer. You would probably wonder what was going on if your printer told you to provide your own ink, right? As the customer, your vendors should make it easy for you to get consistent, pre-

dictable color. Insist on color management. You're the customer!

My printer/service bureau say ColorSync and this ICC business don't work, what's up with that?

ColorSync/ICC-based color management is relatively new. This means there aren't many people who are familiar with it, and its benefits.

My recommendation is to provide people you share files with copies of this entire series. Inform them predictable color is important to you, and encourage them to expand their knowledge to include color management. They will find significant time and money savings with well implemented color management.

Conclusion:

There is a sort of learning curve to get through before implementing color management. However, you have tackled a large part of that learning curve by reading this series of articles.

The next article will wrap up the series with a discussion on workflow implementation. Exactly what must you do, and what items are optional? I will discuss where you should begin, and the options along the way to a full-blown color managed workflow.

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