

Designing a Color Management Workflow

Most of the graphic industry deals with difficult deadlines with little or no margin for error. If surprises are the norm, they are seldom welcome and you may have often wished for means of their prevention. You can greatly improve constancy and predictability simply by properly using profiles and color management savvy applications.

There are many ways to set up a color management workflow and they can vary greatly depending upon the way you receive your documents and images and the needs your production and output demands.

Where to start

First determine if you need a RGB or CMYK workflow. This can be determined by the device to which you send your files.

Printer (RGB): Inkjet, Photolab, or other RGB printer

On screen display (RGB): Web Design, presentations

Press (CMYK): Any conventional or digital printing press

Next break down your workflow into the main processes of your production workflow. For example; input, processing and output. If you have complex production workflow it may help use a program like OmniGraffle to help visualize the process. Start with a diagram of your current situation.

Indicate the following about the images and documents:

- Input:
 - What is the typical image color space, RGB or CMYK
 - Do they have a profile embedded and if not is it known.
 - How are image profiles handled currently, maintained, ignored or converted
- Production or Editing:
 - What are your current color settings
 - Where are they are converted to the output color space
 - Where are images color corrected
 - What do the images have to match
 - Are the monitors calibrated
- Output
 - What devices are used for proofing
 - Are the devices RGB or CMYK
 - Are the devices profiled and calibrated
 - What are the quality demands of the output
 - What are you trying to match
 - What is the final product, the print, press or other product
 - Do you have a profile for your final output device

Designing a Color Management Workflow

- General question to consider:
 - What can't change due to output requirement or vendor requirements
 - Where are the quality problems and bottle necks
 - What are the legacy file handling issues and does this need a separate workflow
 - What tools or services will you need to change your workflow
 - How capable are your printers of maintaining consistent color

The next step

When designing a color managed workflow your goal should be to reduce the variables where possible and use the best tool for the job. Not all programs convert files with the same result, so try to stick with one for where possible. If you work in both Quark and InDesign consider using a PDF workflow to normalize the conversion process. Decide when it is best to convert files into the output color space and with which application. Once a file is converted from RGB to CMYK it has lost the flexibility that the larger RGB gamut allows. Use the rule of thumb of not converting your file unless and until it is necessary.

Here is what a sample color managed workflow created for the weekly industry.

- Considerations:
 - InDesign is used for inhouse production but advertisements are provided is a variety of applications and color spaces.
 - Images come in from a variety of sources
 - The final output is to several different printers
 - To reduce the variables for conversion an Acrobat PDF workflow is used.
- Images are opened in Photoshop. Those that come with profiles are left as is. If there is no profile an informed guess is made by viewing the image on calibrated monitor and the new profile is assigned. All images must have a profile.
- Images are edited and placed in the larger RGB space. The document matches the final output using a calibrated monitor and soft proofing using the output profile.
- Ads not provided in PDF format are normalized by converting to PDF/X-1a:2001 (CMYK) before being place in InDesign.
- The completed InDesign document is exported to PDF US SWOP coated or uncoated for proofing and delivery to print vender .

Designing a Color Management Workflow

