

Purpose

This tutorial will lead the participant through the configuration of a queue to color convert from one color space to a second color space which honors the original appearance of a file when printed on a different process. This will provide the user with the ability to honor the color of a “different” print condition and reproduce it on a Targeted print condition while retaining the visual appearance of the original.

Benefits

This Queue can be used to honor the appearance of a customer proof or legacy print condition or even make an FM print condition match an AM print condition. See the “Pre-Requisite” section below for more details on requirements.

- Convert from Customer Proofer gamut to Printers Press gamut (within gamut capabilities) to honor original appearance
- Allows a user to Configure a queue to process files that were previously approved in a proof color space and intelligently convert them to a GRACoL (any) color space honoring the appearance from the previously printed space and converted to actual print space.
- Allows a printer to print with FM Screening and match a GRACoL or SWOP (both AM) print conditions.
- Allows a printer to move to a G7 Print Condition, but match any legacy printed work without managing multiple plate curves.
- Allows a company to match prints done on one device in the past on another device and a different substrate
- Alwan ColorHub builds Device links to ensure the Color conversion is of the highest quality and uses the Adobe CMM in the actual conversion which allows you to prototype the optimum conversion (profile and rendering intent) in Photoshop before applying in an automated way with Alwan ColorHub.

Goal

This tutorial will walk the user through creating a new queue which will be used to color convert from one color space into a second color space which honors the source color space appearance.

Pre-Requisite

In order to match different print conditions, you will need an ICC Profile of the print conditions that you want to develop profiles for.

1. Match Legacy Print Condition- If there is an ICC Profile that represents the legacy print condition, this will be used in the Legacy queue. If not, find out if the legacy print condition was operated with linear plate curves. If so, see if you can find a press run (such as a GATF or G7) with an IT8 7/3 or 7/4 target on it. If so, build a profile from this target to represent the legacy condition. If unable to find any press sheet run in legacy mode, see if you can produce one in conjunction with an actual job running in legacy mode. See if you can take a page or two on the press form to create a profile to represent this condition. Contact David Hunter for free advice to make sure this is done efficiently. If this is not possible, see if the Proofer was a good representation of the legacy print condition. If so, build a profile of the proofer in it’s legacy state.
2. Match Customer Proof- Often, a customer proof is produced wrong, but your company does not want to call it out to them. In this situation you can ask that they output a target for you that you can use to profile the proofers condition which will be used in ColorHub to honor the color intent of the proof. It will not increase the gamut of the press condition, but it will honor hue and gray balance to provide an excellent visual match within the gamut limitations of your output device. Contact David Hunter for prebuilt targets that support different instrumentation based on your needs. Also, these targets have a Print Verifier strip on them which will allow you to assess if the customers Proofer is stable from the time that you build an ICC Profile of it. If the customer cannot make their proofer consistent, then you cannot match it. The customer will have to take some responsibility for this to work well.
3. Match FM condition to AM condition- for this conversion to work, you will need an ICC Profile of the output conditions that you want to match. If the AM Condition is matching to an industry reference printing aim like GRACoL or SWOP, you can just use the relevant printing aim as the output color space.

Launch Alwan ColorHub

Enter the activation code if necessary to run ColorHub in Trial Mode (no loss of functionality)

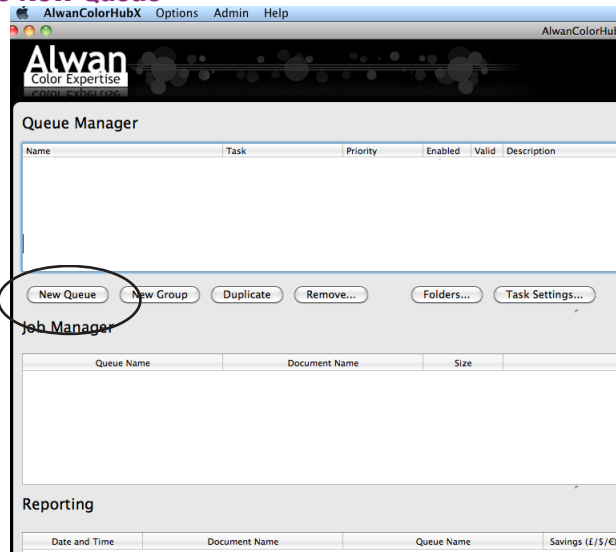
Go to Admin pull down menu

Choose “Enter Demo License”

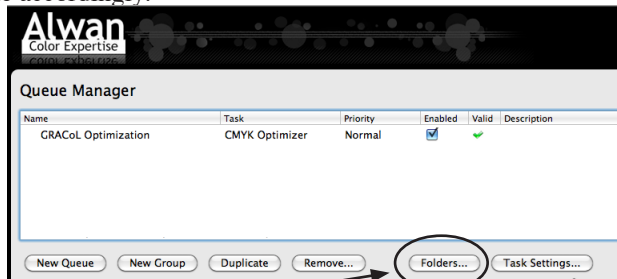
Copy and paste license code into this dialog. License codes are date stamped, they are only good for a short period of time 1-4 weeks.

And the code only works for a maximum of 60 days once the software is activated, only activate when you know that you will have time to test.

Click on “Create New Queue”



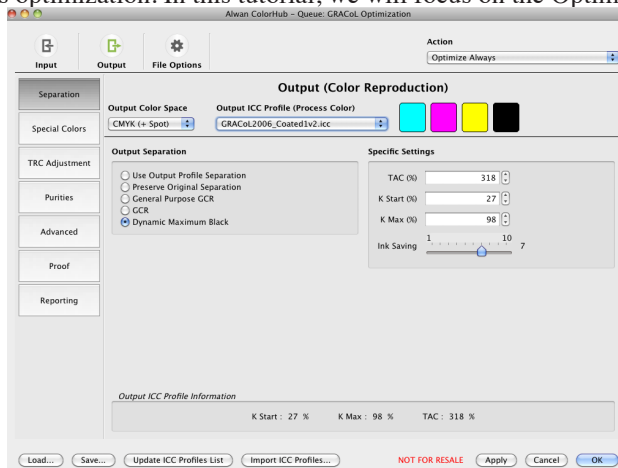
Double click on the name in the Queue window and rename it to GRACoL Normalization (assuming your Printing Aim is GRACoL, if not substitute accordingly).



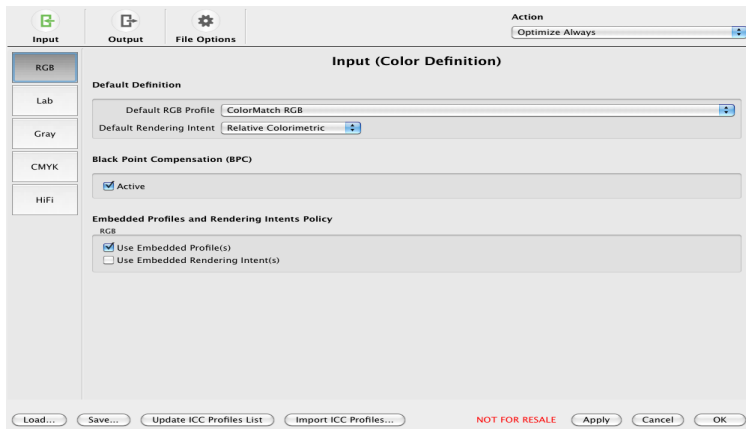
Next Click on the button called “Folders,” for testing purposes make a folder on Desktop called GRACoL Input, and choose to include all other folders inside your main input folder. You can always change the folder structure later to accommodate your workflow. Click the check box next to the Original Folder, this will automatically make a copy of your file, so you do not need to worry about overwriting original file while testing.

Click on “Task Settings” button-

This opens the heart of the ColorHub Interface. ColorHub performs two main functions, first Color Conversion and the second function is optimization. In this tutorial, we will focus on the Optimization of ColorHub settings.



There are 3 Buttons in upper left corner: Input Configuration, Output Configuration and File Options



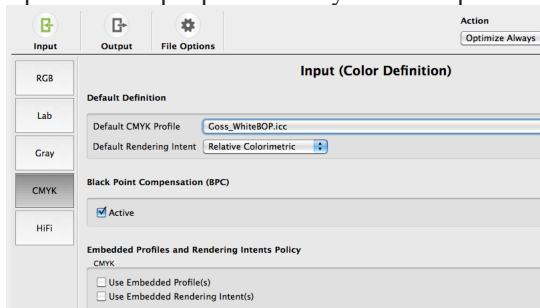
Click on “Load” button on bottom left side of menu

Click on “Load” button on bottom left side of menu to load a Pre-Set Configuration which will populate all the optimum settings to provide accurate flattening of PDF files. All you need to do to get started is to make sure the Output Profile setting is relevant to your actual output condition.

Presets that are available-

- * Legacy Match to GRACoL
- * Customer Proof to GRACoL
- * FM Match to AM Press

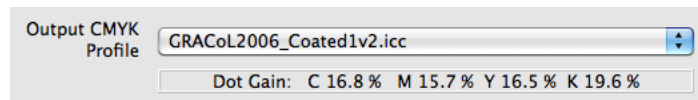
Once the Preset is loaded, replace the Input CMYK profile with the profiled condition that you are attempting to match or simulate to. Then replace the output profile with your actual print condition or the relevant Printing Aim that your presses are aiming for.



Replace the Input CMYK profile with the profiled condition that you are attempting to match or simulate to. This would be the Legacy Press Profile, or the Customer Proof Profile, or the FM Print condition profile.

Output Profile Pop Up

This pop up menu defines the output color condition which SHOULD directly represent the output gamut of the targeted color condition of this queue.



Output Tab

Purity Tab


When matching from one condition to another, you need to define what you want to happen to your primary colors and overprints. This will have a significant impact on the visual result and great care should be taken to consider the desired intent. For instance, when building a queue for a legacy print condition, make sure the ink primaries of the new condition have more chroma than the old condition. You cannot run an ink primary with less color and expect to get a good color match. Also, if you are not running the same inks, check to see what the delta E differences are for the CMYK Solids and RGB overprints. Use Print Verifier for this exercise. If the solids or overprints are more than 4 delta E difference, you will need to decide if you want to keep the processed files with pure C,M,Y,K or if you will allow the color management to convert them to match the legacy condition. You cannot expect a good match if there is a 4+ delta E difference between the Input and output color spaces if you do not allow the colors to convert and contaminate (which means- uncheck the purity check boxes) for everything except Black.

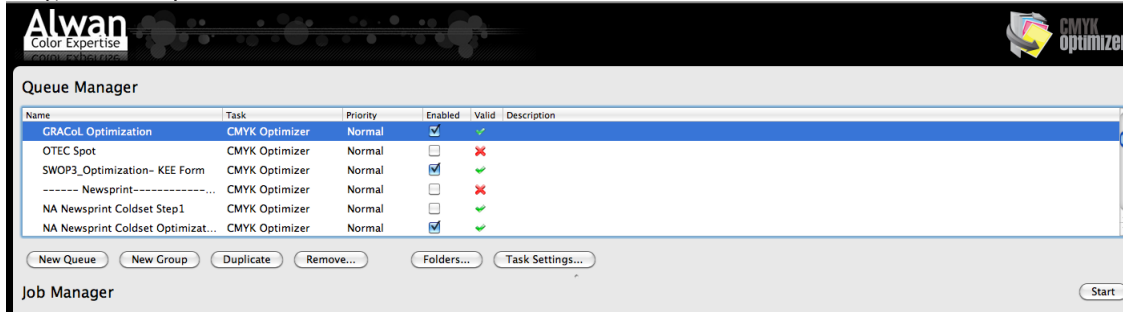
Go ahead and apply “optimization” (See Tutorial 1) to the queue to maximize efficiency in the queue.

You are ready to start “Color Converting” your color files.

Alwan Colorhub uses a Device Link Profile to perform this conversion providing the user with great flexibility on how conversion works

Finalize Queue

Make sure you have a green check mark  next to your queue showing you that it is valid, then click on the START button on the far right side of the Job manager to start processing files that go into the job folder. You can also drag and drop PDFs on to the Queue to get them to process.



You are now ready to color convert your files!