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ColorSync 2.0 Photoshop Plug-In Modules 1.3: Read Me File (4/97)

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TOPIC -----

This article contains the ReadMe file included with the ColorSync 2.0 Photoshop Plug-in Modules 1.3 posted online.

DISCUSSION -----

ColorSync 2.0 Photoshop Plug-In Modules 1.3 Read Me

What are ColorSync 2.0 Plug-In Modules?

The ColorSync 2.0 Plug-In Modules provide an easy way for you to obtain high quality reproduction of color images. Together with the ColorSync 2.0 System Extension and the installed device profiles, the ColorSync 2.0 Plug-In Modules ensure that your color images will be reproduced most accurately on any device. Three Modules (Acquire, Export, and Filter) are available to fit into any type of work-flow, and to provide color matching capabilities to the novice color user as well as to the most demanding color user.

With the Plug-In's you will be able to:

- Accurately print the image viewed on your monitor.
- Accurately print or view the image you have scanned.
- Embed a profile in your image to be specified as the image's source.
- Make color separations for any press printing condition.
- Use your in-house device to preview what your image will look like on the printing press.
- Execute any custom color matching needed.

What are the system requirements?

Before using any of the modules, you should make sure that:

- Your Macintosh has a 68020 or later processor, or a PowerPC 601 or later

processor.

- Your Macintosh is running System Software version 7.1 or higher.
- The ColorSync 2.0 System Extension and ColorSync 2.0 System Profile Control Panel are installed in the Extensions and Control Panels folders, respectively.
- The ColorSync 2.0 (or ICC-compatible) profiles for your peripherals are installed in "System Folder:Preferences:ColorSync Profiles" folder.
- You are using Adobe Photoshop version 2.5.1 or later, or other software that accepts version 4.0 Photoshop Plug-In modules.

How do I install the software?

If ColorSync 2.0 is not already installed on your system, you can download a copy of the ColorSync installer disks from any of the on-line services mentioned at the end of this document. Please follow the instructions that are included on the disk before installing ColorSync 2.0.

The ColorSync 2.0 Plug-In Modules are installed by coping all three into the "Acquire Export" folder in your Photoshop 3.0 Plug-Ins folder. For Photoshop 2.5, copy all three directly into the "Plug-Ins" folder. For other applications that use plug-ins, refer to the documentation that comes with the application.

Important Definitions

Color matching/color reproduction:

The process of making a controlled transformation of color values generated from one device to values intended for another device.

Profile:

A file containing information about the color reproduction capabilities of a device, such as a scanner, a digital camera, a monitor , or a printer. Commonly, two profiles (source and output) are used during a color matching session.

Source profile:

A profile representing a device from which an image was originated. For example, if an image is scanned in, then the scanner profile is the source profile. Or, if an image is created and viewed on the monitor, then the monitor profile is the source profile.

Output profile:

A profile representing a device on which an image is to be outputted. For example, if an image is to be printed on a color printer, then the printer's profile is the output profile. Or, if an image is to be viewed on the monitor, the monitor profile is the output profile.

Proofer profile:

Proofing is the process of using one device to predict the output of an image on another device. A proofer profile represents the device which is used for the prediction. For example, if an image whose output on a color printer is to be proofed on a monitor, the monitor profile will be the proofer profile.

Matching style:

Because of the differences among devices' color capability, different methods exist for applying color matching on an image. The matching style is usually selected according to the content of the image . See below.

Perceptual matching style:

A matching style which gives the most pleasing reproduction given the capabilities of the devices involved. This is the most commonly used style, especially for reproduction of photographic images.

Colorimetric matching style:

A matching style where colors are reproduced exactly the same as the eye can distinguish. This may result in clipping of certain colors which can not be reproduced on a device. Colorimetric matching can further be divided into relative colorimetric matching and absolute colorimetric matching, where relative matching accounts for the ability of the human eye to automatically adapt to the surround white (e.g., white of the paper the image is printed on), and absolute does not. Colorimetric matching is most commonly used for reproducing Logo colors where the exactness of the color is important.

Saturation matching style:

A matching style where the vividness of the image is best preserved. This style is mostly used for reproduction of graphs and pie charts.

Matching quality:

The matching quality indicates the overall computation precision of a particular matching session. Higher computation precision requires more run-time memory. It is always best to use the highest matching quality your system allows.

Using the Acquire Module:

The Acquire Module will import a Tiff image from disk into Photoshop while applying ColorSync matching. The Acquire Module is most convenient to use if you simply want to match your image for printing from Photoshop, or if you want to match an image you scanned previously for viewing.

To use the Acquire Module:

Step 1

In Photoshop, select the "Tiff with ColorSync Profile..." from the "Acquire" menu under "File". A standard file selection dialog box appears prompting you to select a Tiff image to be imported.

Step 2

Select the Tiff image you want to import and click the "Open" button. The ColorSync Acquire Module dialog box appears. Select the appropriate "Source" and "Output Profile" for the image, and select the desired "Matching Style" and "Quality" setting. Refer to the "Important Definitions" section above for more explanations .

Step 3

Click the "Import" button to start importing.

Note 1: If the Tiff image to be imported already has a profile embedded, the embedded profile will show up on the list of available Source Profiles as an *Italic* item.

Note 2: Only profiles whose color space information match that of the selected Tiff image appear in the list of "Source Profiles". Therefore, for a Tiff CMYK image, only profiles that are CMYK based are available as "Source Profile".

Note 3: Certain Tiff images cannot be imported if they contain unsupported Tiff image format features such as compression.

Using the Filter Module:

The Filter Module will apply ColorSync matching on the current Photoshop image. The Filter Module is most convenient for matching an image which is already in Photoshop without writing it to disk.

To use the Filter Module:

Step 1

In Photoshop, select the "ColorSync Filter" in the "Color Matching" menu under "Filter". The ColorSync Filter Module dialog box will appear.

Step 2

Select the appropriate "Source" and "Output Profile" for the image, and select the desired "Matching Style" and "Quality" setting. Refer to the "Important Definitions" section above for more explanations.

Step 3

Click the "OK" button to start filtering.

Note: Due to limitations of the Photoshop Filter Module API, the ColorSync Filter Module can only match images from/to the same color space. Therefore, it cannot match an RGB image for a CMYK device, and vice versa.

Using the Export Module:

The Export Module will save the current Photoshop image to disk as a Tiff image with ColorSync matching applied. It is the most flexible module out of the three.

To use the Export Module:

Step 1

In Photoshop, select the "Tiff with ColorSync Profile..." module from the "Export" menu under "File". The ColorSync Export Module dialog box will appear.

Step 2

Select the desired choice from "Processing Selection". Action for each of the choices are as follows:

- "Embed" simply embeds into the current image the selected "Source Profile" with the selected "Matching Style". No color matching occurs.
- "Match" applies a matching session using the selected "Source" and "Output Profile" and the selected "Quality" and "Matching Style". The "Output Profile" is also embedded in the output image to indicate that the matched image is now intended for the device associated with the profile.
- "Proof Matched" applies a proofing session using the selected "Source", "Output", and "Proofer Profile" and the selected "Quality" and "Matching Style". "Matching Style" is applied separately for the source-to-output match AND for the output-to-proof match. The "Proofer Profile" is also embedded to indicate that the matched image is now intended for the device associated with the profile.
- "Custom" enables more extensive matching sessions.

Click the "Export" button if "Embed", "Match", or "Proof" is selected and go to step 6. Click the "Select..." button if "Custom" is selected and go to step 3 below.

Step 3

"Custom" matching is used for the rare occasion when you want to perform matching with many profiles. It comes up with a dialog box with a scrollable list of "Profiles Selected" and a "Quality" selection that is to be applied for the entire matching session.

Step 4

Click the "Add Profile" button to add a profile after the last element on the "Profiles Selected" list. This brings up the list of available profiles. Select the desired profile and the "Matching Style" setting and click the "Add" button. The "Matching Style" selecting is applied for the match from the current profile to the next selected profile. The "Matching Style" of the last selected profile is ignored.

Step 5

Repeat step 4. as many times as necessary to add more profiles to the list. When done, click the "Export Tiff..." button. To remove a profile from the list, all succeeding profiles following that profile must be removed first. To remove the last profile from the list, simply select the profile and click "Remove Profile".

Step 6

The standard save file dialog box will appear prompting for a name of the image file to be saved as. Enter the desired file name and click the "Save" button to execute.

Note: An image must be loaded in RGB or CMYK mode in order for the "Tiff with Color Sync Profile" menu item in the Export menu item to be selectable. The item is not selectable if the image is in indexed mode.

Where do I go for more information?

- ColorSync system extension available on-line from:

Internet: <http://www.austin.com/macros>

- ColorSync White Paper, available on line from :

Internet: http://www.austin.com/macros/tech/media/colorsync/cs_wp/contents.html

- Bug reports :

Internet: apple.bugs@applelink.apple.com

Article Change History:

09 Apr 1997 - Removed out dated on line references.

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