

Optimize.

Profile.



COLOR
Logic

QuickStart Guide for CoPrA 4

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01

INSTALLATION

- ▶ System Requirements
- ▶ Computer Based License vs USB Dongle
- ▶ Demo license request
- ▶ Restrictions with demo licenses
- ▶ Purchasing CoPrA
- ▶ Loading a permanent license file
- ▶ CoPrA package options

02

**MAIN NAVIGATION
PANEL OVERVIEW**

- ▶ Overview of Navigation Panel

03

PRINTER PROFILING

- ▶ Loading measurement data
- ▶ Quick start to printer profiling
- ▶ Updating Profiles

04

DEVICELINK PROFILING

- ▶ Creating DeviceLink Profiles
- ▶ Create DeviceLink Profiles by Editing
- ▶ SaveInk DeviceLinks
- ▶ Recalculate DeviceLinks

05

COPRA'S TOOLBOX

- ▶ Using Image Conversion
- ▶ Profile Manager overview
- ▶ Batch Overview window

Additional Information

Simple operation for color profiling tasks

The ColorLogic philosophy toward color management is a simple set of tools with highly powerful options. CoPrA produces high quality profiles with just a few clicks using simple easy to use tools. CoPrA can create printer, DeviceLink and SaveInk profiles with Multicolor options for typical day-to-day color management challenges. The simple and quick setup of CoPrA – outlined in this Quick Start Guide – demonstrates the power of ColorLogic's CoPrA.

CoPrA Documentation

ColorLogic's CoPrA offers some of the most intelligent and advanced profiling tools in the industry today. CoPrA's help buttons are represented with the **?** icon, and have detailed and up-to-date information.

Automatic Updates

CoPrA includes an automatic update function that can be enabled or disabled by going to **Help>Check for Update**

INSTALLING COPRA



Getting started with CoPrA 4

Installation, requesting demo licenses,
loading licenses and permanent licenses



Installing CoPrA 4

System requirements

Mac OSX

10.7 or later - (Intel only)

Windows:

Windows XP, Vista, Windows 7, Windows 8, Windows 10

Installers for the respective platform install the program by default in either the **Applications** folder (Macintosh) or the **Program files** folder (Windows). Begin installation by double-clicking on the CoPrA installation package.

After accepting the Software License Agreement, select the destination volume and choose between a **Standard Installation** or custom installation. **Standard Installation** installs all components including the UPPCT tool as described below. Custom installation lets you choose to install UPPCT.

UPPCT – CoPrA contains the option of directly measuring test charts for profile creation with the 3rd party software UPPCT, rather than measuring and saving them exclusively via external measuring software and then importing them into CoPrA.

Computer vs USB dongle license

A **computer-based** CoPrA license always refers to the specific computer on which CoPrA was installed and can be requested for temporary test purposes. Computer licenses are also advantageous if the computer has no USB ports or no space for a USB dongle, i.e. a rack server.

USB dongle licenses are serialized to the CoPrA USB dongle. The CoPrA USB dongle is shipped with the permanent license of CoPrA and permits use of CoPrA on different computers. To be able to assign the license to the USB dongle, the dongle must be connected before starting CoPrA.

Demo license request

CoPrA allows users to request a demo license for 14 days for software evaluation. The restriction of running CoPrA in demo mode is all profiles are encrypted and can be used with ColorLogic applications only.

To request a demo license follow the steps below:

1. Click the **Registration** button located on the lower left hand corner of the Main Navigation Panel.
2. Click on the **Demo license request** tab.

3. Enter all required information.
4. When your location is chosen, CoPrA will show the available dealers for your region. Select a dealer and click **Send direct request**. A demo license file will be automatically sent to the email address supplied in the contact form.
5. Save the license file contained in the email (indicated by the ending ***.lic**) to your system.
6. Under **License details** in the **Registration** window select the ***.lic** file. After installing the demo license file, the expiration date of the demo license is shown below the **License details**.

Restrictions with Demo licenses and CoPrA

CoPrA demo license gives users a 14 day evaluation period to try all the functions of CoPrA within the application. When a profile is generated with CoPrA while running with a demo license, **the only restriction is that the profiles generated are encrypted and can only be used within ColorLogic applications**. To apply a demo profile to a test image, follow the instructions on using the **Image Conversion** (described on page 26) function located within CoPrA.

If it becomes necessary to decrypt a demo profile during the test period, contact your dealer for instructions.

Purchasing CoPrA

Select from one of our base CoPrA packages (located on page 8). Click on **Buy ColorLogic products** under **License details** or **Demo license request** in the **Registration** window.

A list of contacts will open in your browser, where you can locate a dealer. When selecting the dealer you will be forwarded to the dealers homepage.

Installing a permanent license

A permanent license provided by the individual dealer will be supplied after purchasing CoPrA. The permanent license is available in the form of a computer-based license or a dongle license (see previous section).

After purchasing the software, a **permanent license file (*.lic)** will be sent via email. Load the license file under **License details** in the **Registration** window.

After installing the permanent license file, the licensed modules are displayed under the **License details**.

Profiles created with the permanently licensed version can be used in all ICC compliant programs that support DeviceLink profiles and device profiles such as ColorLogic's ZePrA Color Server.

› CoPrA 4 Packages and Add-Ons

CoPrA 4 base packages now include more features and the flexibility to add specific modules to changing needs.

CoPrA 4 PACKAGES				
COPRA BASIC	COPRA M	COPRA L	COPRA XL	COPRA XXL
STANDARD FEATURES	Package Features M	Package Features L	Package Features XL	Package Features XXL
RGB, Gray, CMYK Profiles with presets	Includes all features of Basic Package	Includes all features of Basic and M Packages	Includes all features of Basic, M, L Packages	Includes all features of S, M, L, XL Packages
Profile updating with presets	Create profiles with custom settings	DeviceLink Creation & Editing	SaveInk Profiles Create SaveInk DeviceLinks	Edit DeviceLink 2 to 15 channels
Profile Manager PDF reporting	ColorAnt M Analyze & Optimize Measurement data	DeviceLink Recalculation		Multicolor Profiles Create and update profiles & DeviceLinks
		Generate XML Reports		ColorAnt L Analyze & Optimize Measurement data

CoPrA 4 ADD-ON MODULES	
COPRA MODULE	OPTIONAL FEATURES
DeviceLink Profile Module	DeviceLinks for Gray, RGB, CMYK
DeviceLink Edit Module	Creates DeviceLink profiles based on Editing for Gray, RGB, CMYK
SaveInk Module	Create SaveInk DeviceLinks
Multicolor Module	Multicolor support for Printer and/or DeviceLink profiling and/or Editing
Multicolor Module With Option for use in ZePrA	Enables Multicolor Support for CoPrA and ZePrA

MAIN PANEL



CoPrA's Main Navigation Panel

Access all of CoPrA 4 functions from a centralized location.



Printer Profiling



New Printer ProfileUpdate Profile

DeviceLink Profiling



DeviceLinkEditingSaveInkRecalculate

ToolBox



Image ConversionProfile ManagerBatch Overview

Registration**Home****Preferences**

CoPrA's Navigation Panel

CoPrA 4's interface includes a navigation panel to quickly access all main profile functions from one easy-to-use panel. Graphical illustrations display the purpose of each function on the panel.



New Printer Profile

Create printer profiles with a variety of options



Update Profile

Update printer profiles with a small test chart



Create DeviceLink profiles

Create DeviceLink profiles from standard ICC profiles



Create DeviceLink profiles by Editing

Create DeviceLinks via edit charts



Create SaveInk DeviceLink profiles

Create SaveInk profiles from CMYK profiles



Recalculate DeviceLink profiles

Recalculate DeviceLink profiles with a different profile



Image Conversion

Convert images using a variety of profiles



Profile Manager

Manage profiles in one convenient place



Batch Overview

View progress of profile generation, create reports for individual profiles, generate preview profiles, manage profiles



Online Help

Online help is available through clicking any of the **?** located on any of the application windows.

Registration - Home - Preferences

Registration - Access the Registration and license dialog

Home - Return to CoPrA's Home screen

Preferences - Access CoPrA's Preferences, including home page selection, overwriting preview profiles and default report options

PRINTER PROFILING



Getting started with Printer Profiling

How to create a printer profile using
optimized measurement data



Getting started Updating Profiles

How to update printer profiles using
optimized measurement data



03

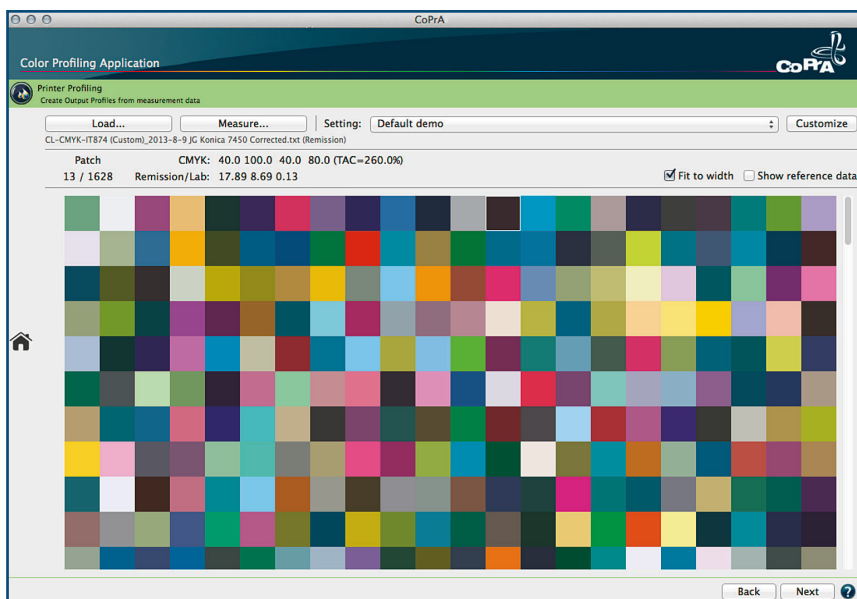
PROFILING

Printer Profiling

CoPrA's profiling functionality is dependent on which base package and modules are purchased (all modules and options are available with a demo license). Depending on the package and modules purchased, CoPrA will profile the following color spaces: Gray, RGB, CMY, CMYK or Multicolor.

Drag and Drop measurement data directly into the window or onto the load button.

Creating printer profiles (Fig 3.1) in CoPrA involves loading measurement and reference data and selecting the settings for profile generation. The profiling **Settings** are a special feature in CoPrA which can be saved and re-used or edited. This ensures consistent profiling and increased color quality in production. Once the

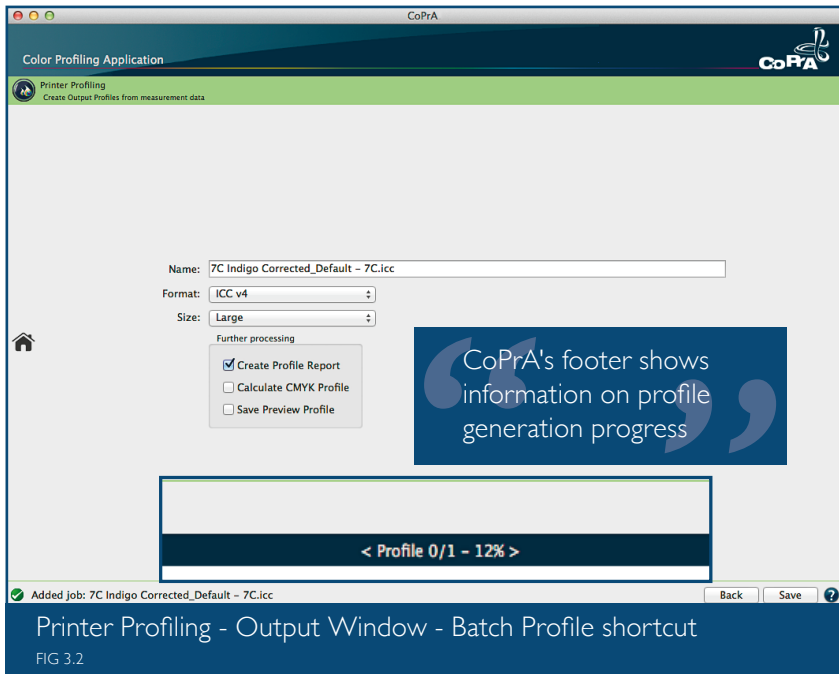


Printer Profiling - Main Window

FIG 3.1

required profile quality is achieved with quality results using a particular set of settings, retrieve these settings to create new profiles based on new

optical brightener and the ability to set a highlight starting point. The different modes for controlling the black channel permits specific control of



measurement data - with no color management expertise. CoPrA includes a number of standard settings (Digital Printing, Inkjet etc.) that are available with the standard installation for output profiling, in addition to the option of creating specialized settings for particular production environments. The additional rendering intents help the user to achieve the very best profile quality according to their needs. Some CoPrA advanced options for profile creation include the ability to adapt a profile to viewing conditions, compensate for

the separation characteristics. These options are complemented by the numerous possibilities for defining exceptions.

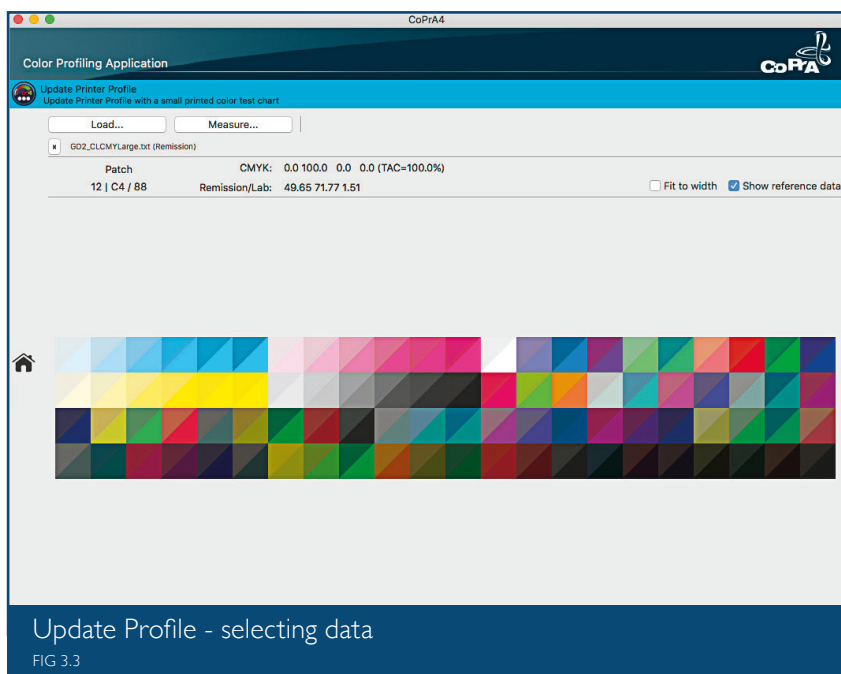
Quick Start Procedure

1. Load measurement data by clicking on the **Load** button, dragging and dropping on the window or click the **Measure** button to start the UPPCT tool.
2. Use the **Settings** button to select one of CoPrA's predefined settings and click **Next**.

3. If further customization of the profile is necessary, click the **Customize** button (available in M package or higher) to access CoPrA's comprehensive set of options. Help for individual functions is available Online by clicking any of the **?** to access Online help.

on profile statistics, gamut, gamut volume, gray balance, conversions, hue samples, linearity and dot gain. The number of report pages will vary depending on the type of profile being generated.

5. By clicking the **Save** button as the profile process begins, you can go back to the navigation panel and click



4. Click **Next**. CoPrA by default names the profile based on the measurement data and setting selected. Customize the name of the profile (Fig 3.2) Choose the ICC **Format** (V2 or V4), next select the **Size** of the profile (defines grid points in the profile). The option is available to generate a detailed **Profile Report** that contains in-depth information

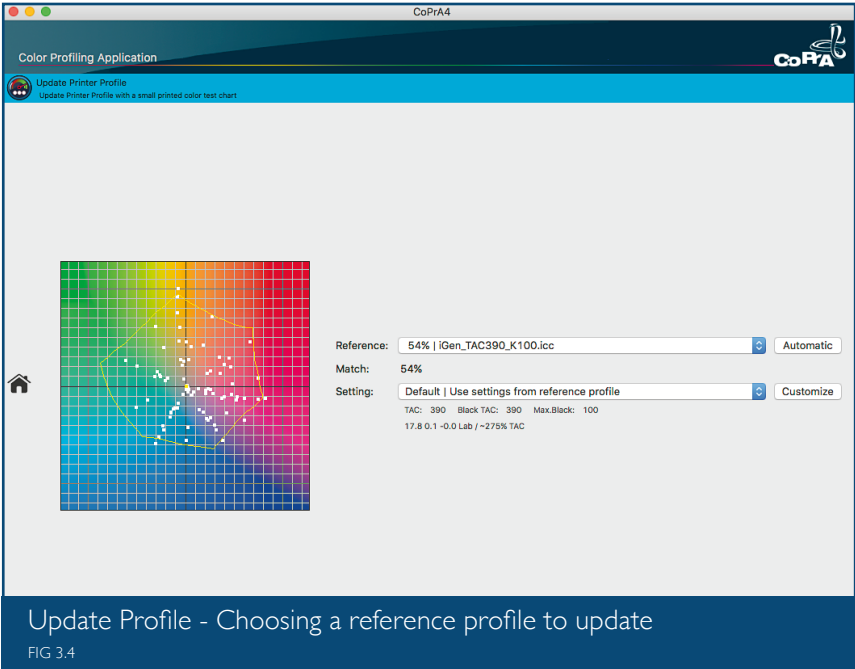
Batch Overview to view the processing progress. **Batch Overview** to view the processing progress. (**Shortcut:** click on the bottom center to go directly to the **Batch Overview** or keyboard shortcut **cmd 8**).

Update Profiles

CoPrA includes an innovative approach to updating ICC profiles without printing a large test chart and defining profile settings from scratch. This approach requires printing a small control strip to quickly update a profile for changing print conditions.

Use this profile or select the profile that requires updating from the drop down window.

3. Select the default (**use settings from reference profile**) or from one of the presets from the drop down. For details on the custom settings, please refer to the ColorLogic online help.



Quick Start Procedure

1. Load measurement data by clicking on the **Load** button (Fig 3.3), dragging and dropping on the window or click the **Measure** button to start the UPPCT tool .
2. Click **Next**. CoPrA will automatically search the system for the closest matching profile (fig 3.4) and display it in the drop down window.

4. Click **Next**, name the updated profile, choose the size and format of the ICC profile. From the additional options for creating a profile report, a **Profile Comparison Report** (that compares the effect of the update) and generate a correction DeviceLink profile.

DEVICELINK PROFILING



Create DeviceLink

Create DeviceLink from Device Profiles



DeviceLink by Editing

Create DeviceLink profiles by editing



SaveInk DeviceLink

Create DeviceLink profiles for ink saving or TAC reduction



Recalculate

Recalculate multiple DeviceLinks



DeviceLink Profiling

DeviceLink profiles complement the use of "normal" ICC device profiles (device profiles are printer, monitor, and scanner profiles) and are applied to certain tasks in order to achieve substantially better results in terms of quality and printing when converting and adapting colors. DeviceLink profiles specifically avoid many of the weaknesses of color conversion based on ICC device profiles.

CoPrA can create DeviceLink profiles for all combinations of color spaces: Gray, RGB, CMYK, Multicolor. The most important applications are CMYK-to-CMYK, RGB-to-CMYK and CMYK-to-Multicolor. To create DeviceLink profiles, a pre-configured ICC printer profile is required. If there is no ICC printer profile for a printing process or an output device, simply create it in the CoPrA Printer Profiling module.

Quick Start Procedure

1. Load the **Source** and **Target** profile(s).
2. From the **Settings** drop down

menu, select the appropriate predefined setting for your production task. ColorLogic recommends starting with one of the predefined settings supplied.

3. Click the **Next** button and proceed to or click **Customize**. For more detailed information click the **?** to access CoPrA's Online help.

Use one of the predefined settings as a starting point to create DeviceLink profiles

4. Name the profile and set the **ICC Format**, **Size** of the profile and the option to generate a detailed

report or generate a preview profile (useful for visual checking) and click **Save**.

5. To check the progress of profile generation, click to **Batch Overview** by accessing the main panel, or keyboard shortcut **cmd 8**.

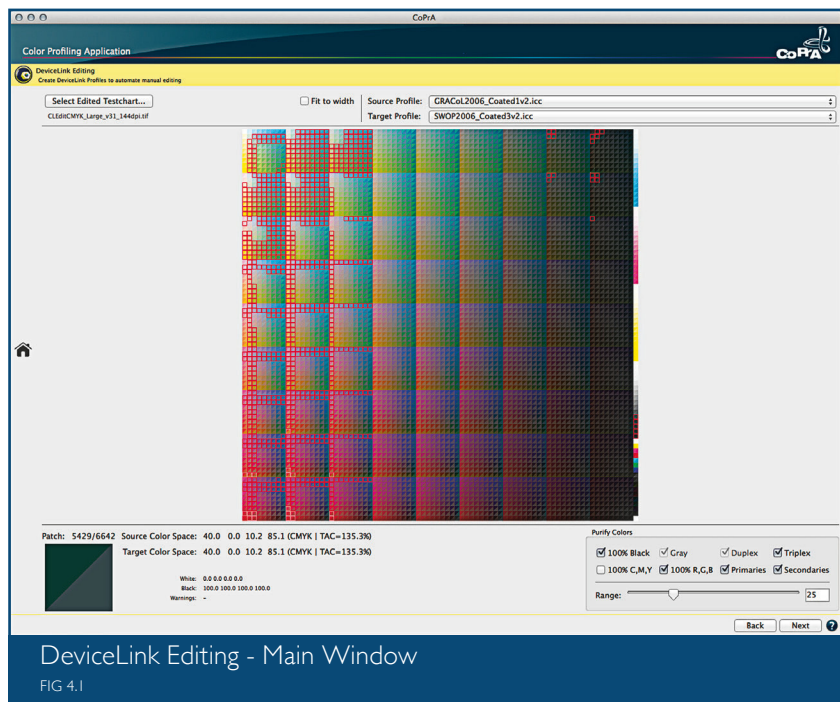
Correction DeviceLink Profiles

The CoPrA 4 and later DeviceLink module adds the option to generate a **Correction DeviceLink**. The **Correction DeviceLink** includes special settings that allow for corrections to deviations in the print process. Correction DeviceLinks can

Create DeviceLink profiles by editing

corrections required. It is possible to add other image data to the **Edit Charts**. The corrections must be applied globally to the entire **Edit Chart**.

Contained in the upper left corner there is a specially designed element that CoPrA will measure. Based on the editing, CoPrA then calcu-



Simply open one of the supplied CoPrA **Edit Charts** (for CMYK, RGB or Grayscale) that are installed with CoPrA in an image editing program which have the tools to apply (e.g. Adobe Photoshop) the color

lates a new DeviceLink profile. This powerful function can be put to a wide variety of uses: recurring color corrections on different sets of image data, specifically prepare RGB image data for four-color or multicolor printing, apply gradation curves in the profile rather than in the RIP, create special effects or simply fine-tune an existing DeviceLink profile.

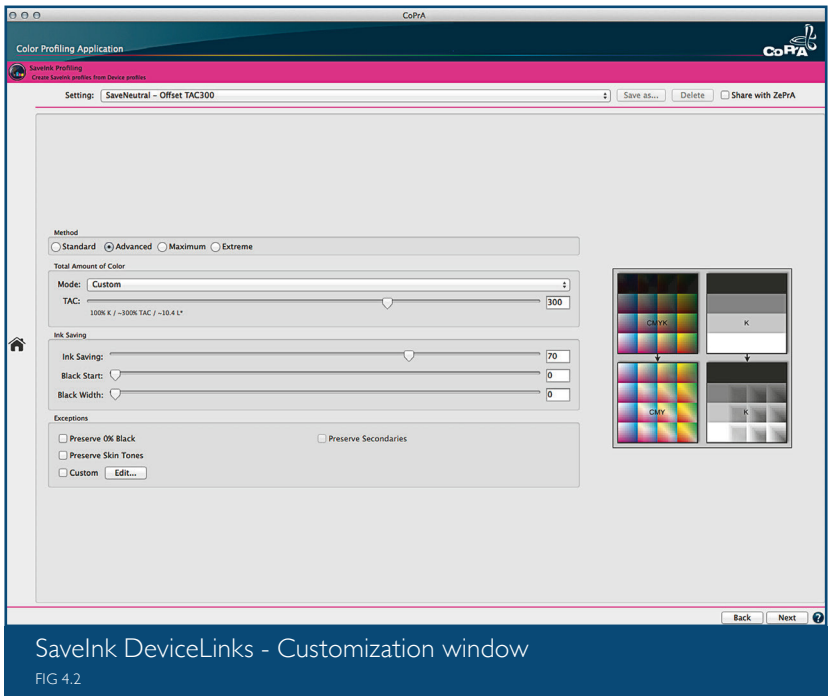
Quick Start Procedure

- 1. Open one of the ColorLogic edit charts located in **Tools>Open EditTargets** folder
- 2. Edit the appropriate target in any image editing program (i.e. Photoshop) and save as.

Note: Remember the size and

SaveInk DeviceLink Profiles

By optimizing the black composition of the data, SaveInk DeviceLink profiles make it possible to reduce the amount of cyan, magenta and yellow used - without any loss of quality and control the amount of



position of the Control Element cannot change.

- 3. Open the edited chart in the DeviceLink Editing module and apply any of the options (Fig 4.2) available for **Purifying Colors**, choosing source and target profiles etc. (details available in the Online help).

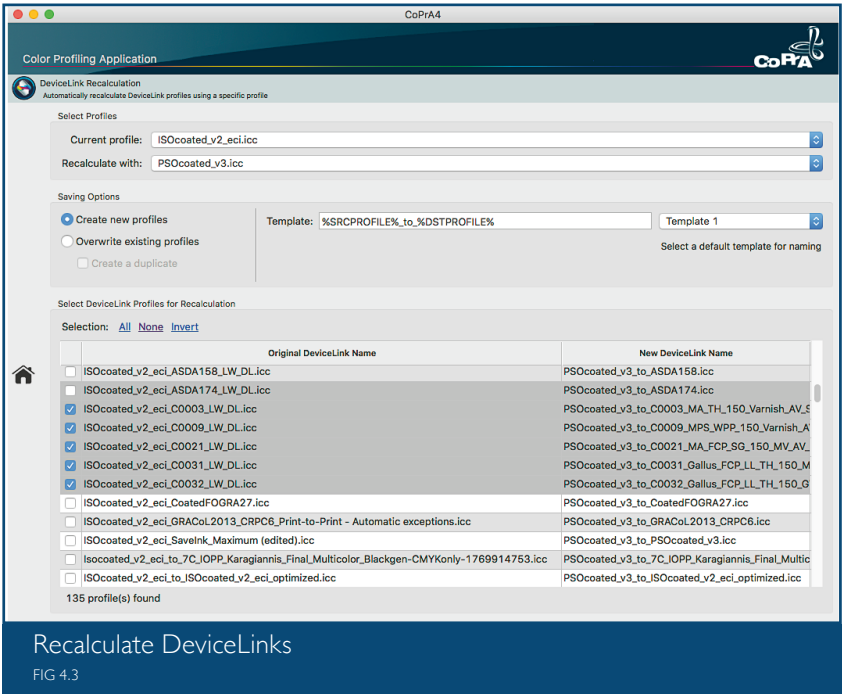
TAC (total area coverage) reduction. Applying this function to a moderate degree enhances the stability of the printing process, while use of a stronger level saves even more ink. Additionally SaveInk functionality can also be combined with the other options available in CoPrA, e.g. color space conversion + SaveInk.

Quick Start Procedure

1. Load the CMYK **Printer Profile** either by selecting in the menu or by dragging and dropping onto the menu.
2. Select the **Setting** by using any of the predefined settings in the list. For advanced settings click on the

Recalculate DeviceLink Profiles

The **Recalculate** feature is a great time saver if there are several DeviceLink profiles that require updating.



Customize button (detailed information available via Online help).

3. Name the profile, choose the ICC **Format** and **Size** of the profile; click the **Profile Report** to create a report.

Quick Start Procedure

1. Choose the current ICC profile from the **Current Profile** drop down menu (fig 4.3).
2. Choose the ICC profile to replace the current profile with from the **Recalculate with** drop down menu.

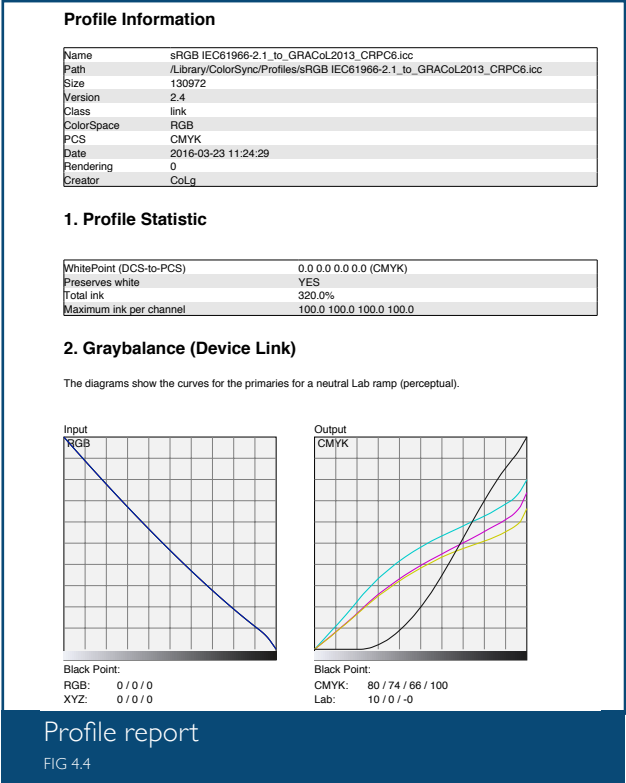
3. From the **Save options** choose to either **Create new profiles** or to **Overwrite existing profiles**.

4. Choose the template to name the files. CoPrA offers flexible options to name the resulting devicelink profiles. Choose from our preset templates or create a personalized option.

5. Select the DeviceLinks to be updated by clicking one of the three selections (**All**, **None**, **Invert**) or individually select the profiles by clicking the check box(s) on the left.

6. Click Start to begin Recalculating the DeviceLinks, to follow the progress, click the **Batch Overview**.

7. Right Click any of the processed profiles to generate either a PDF or XML report (Fig 4.4)



COPRA TOOLBOX



Image Conversion

Convert images using standard ICC profiles and DeviceLinks



Profile Manager

Manage all types of ICC profiles, analyze and compare profiles



Batch Overview

Overview of all profiling jobs, create reports, create preview profiles



05

TOOLBOX

Image Conversion

CoPrA can convert PSD, TIFF and JPEG files (Fig 5.1) with ICC device profiles and DeviceLink profiles. Typical application programs do

Profile Manager

The Profile Manager allows viewing, organization, analysis, and comparison of profiles after creation in CoPrA (Fig 5.2). The unique ability of

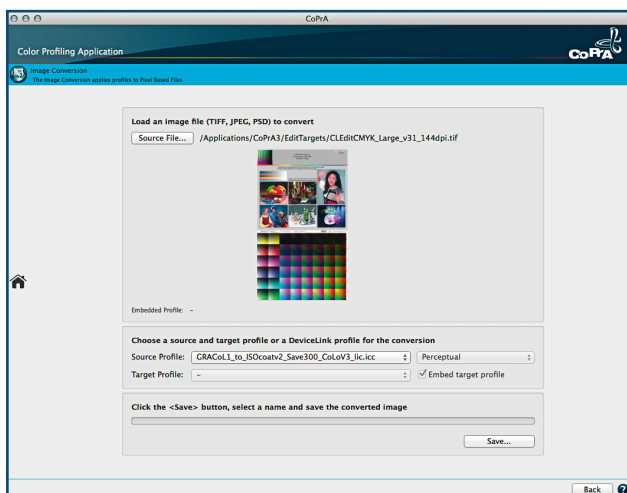


Image Conversion- Main Window

FIG 5.1

not support all types of DeviceLink (i.e. RGB to CMYK) or multicolor profiles.

When CoPrA 4 has a demo license installed, the application will allow the conversion of images with CoPrA demo profiles for further evaluation in other programs (i.e. Photoshop).

Profile Manager to display all types of profiles, (including DeviceLink and Multicolor Profiles) is a powerful tool for everyday color management. Profile Manager includes 5 different tabs (**General, Curves, Gamut, Colorants, Workflow**) or verify and check the quality of a

profile with a profile report.

Note: Detailed information regarding the individual tabs and functions of Profile Manager can be found in CoPrA's Online help.

Batch profiling

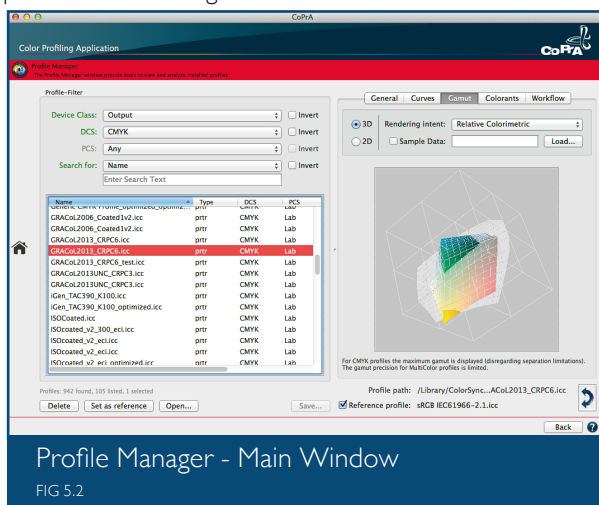
Batch profiling functions are incorporated in CoPrA allowing power users to create several profiles at once and

Located at the top of the **Batch Overview** window is a tool bar that

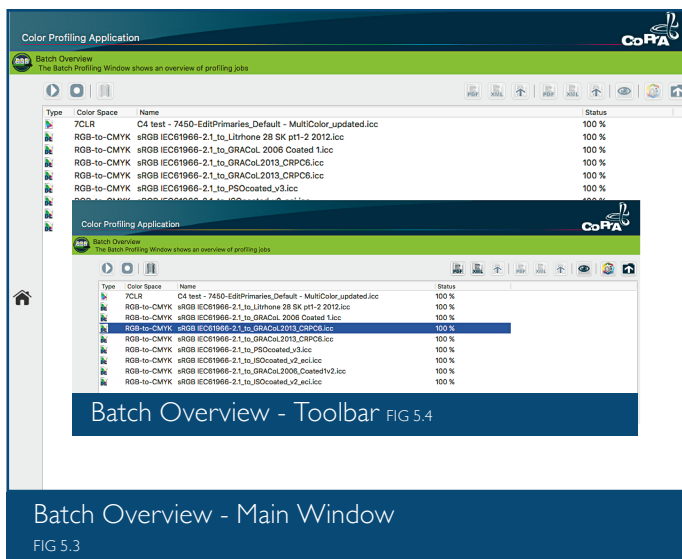
will perform various functions, including: Start, Stop, Deletion of profiles. Direct access to the Profile Manager or revealing the profiles on an individual system can be done directly from the toolbar:

The toolbar also includes the option to create PDF or XML reports (XML requires CoPrA L

package or higher), create preview profiles and access **Profile Manager**.



While the profile is being calculated, load new measurement data, prepare the next profile(s) or create variations. All profiles to be calculated are displayed in the **Batch Overview** and are processed one after the other. With batch profiling and calculating numerous profiles successively, it is not necessary to wait until the calculation of the current profile to be completed before preparing the next profile for calculation.



ColorAnt



CoPra



DLS



ZePra



COLOR
Logic

ColorLogic GmbH

www.colorlogic.de
info@colorlogic.de

CROSS **COLOR**
Inc.

CrossXColor, Inc.

www.crossxcolor.com
info@crossxcolor.com