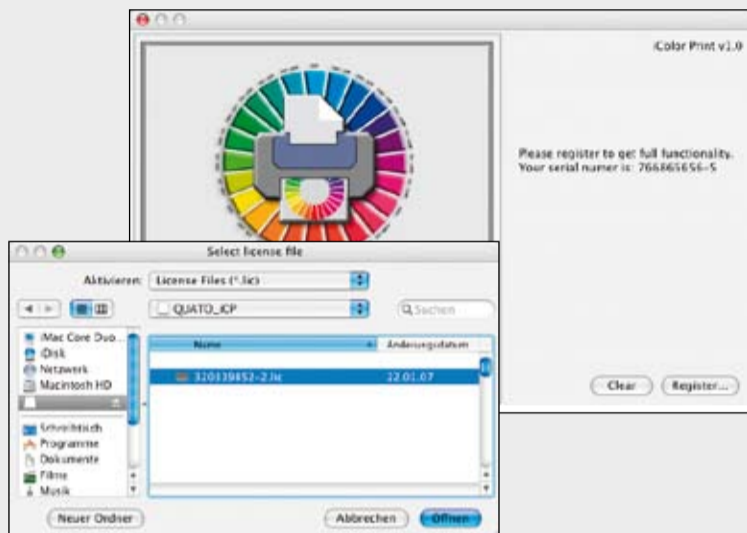


iColor Print Quickstart Guide

License

iColor Print is copy protected and you have acquired one (1) license. To make use of the software, you have to use the individual license file on the Dongle prior to the first calibration. The Dongle must be attached during usage of the iColor Print Software.



The license code can be found on the Dongle as a ".lic"-File. By using the software you accept the End User License included on the Dongle.

There is no CD included. The Dongle contains the Software.

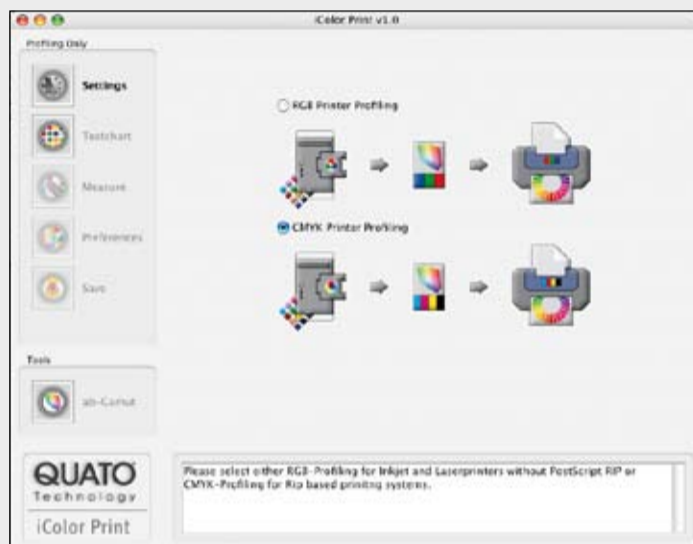
Installation

- Open the Diskimage (.dmg) with Mac OS X and copy the iColor Print folder to the Application folder or another suited location on your harddisk. With Windows XP and Vista, please follow the instructions of the Setup application.

- The iColor Print Dongle is write protected by default. You can remove the protection to store measurements/data on the Dongle.

Settings

- Please select the desired task for profiling RGB-printer or CMYK-printer. (Photo-) Inkjet printers use CMYK inks but their printer driver does only understand RGB-data. Therefore these types of printers are commonly known as RGB-printers. Printers that make use of an software based or hardware based Postscript interpreter (RIP) output real native CMYK-Data. This belongs to image setters, large format printers with RIP and Proofing printers etc.



Dear User,

thank you for choosing this calibration solution. iColor Print allows you to create output profiles for RGB- and CMYK-Printers in an easy but powerful way.

iColor Print offers the following features

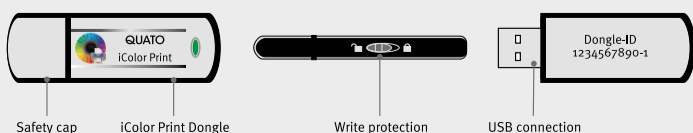
- Intelligent Dongle-Technology with data partition for iColor Print
- Calibration of RGB- and CMYK-based printing systems
- Wizard based calibration
- Easy Mode and Expert Mode with full access to the separation setup
- Perceptive optimization for Photoprinting (RGB and CMYK)
- 4 Targets with gray optimization for Photo and Fine Art printers
- Measure feature and Gamut viewer fully functional without dongle
- Support for
 - XRite/Gretag Eye-One Pro Spectrophotometer
 - XRite DTP20 (Pulse) Spectrophotometer
 - Datacolor 1005 Spectrocolorimeter (RGB only)

System requirements

- Power Macintosh Computer G3 or newer, one free and integrated USB Port, Mac OS 10.3 or newer
- PC with Windows XP/Vista and one free and integrated USB-Port

Packing list

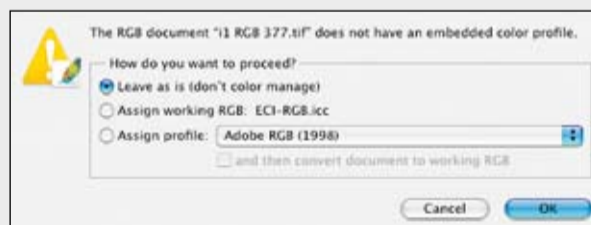
- iColor Print USB Dongle (contains Software and License)
- optional - DTP20 Spectrophotometer (RGB/CMYK-Version)
- Datacolor 1005 Spectrocolorimeter (RGB-Version)



Printing the test chart

- Select one of the testcharts from iColor Print's Resources folder. The more patches a chart contains, the more precise the profiling can be. Therefore two charts for RGB and CMYK with different numbers of patches are available.

- Open the testchart in Adobe Photoshop, Preview (Mac OS) or Paint (Windows). With Photoshop, one has to make sure that the colormangement is switched off.



- Select A4 as the paper size in the printer driver and print the document at 100% scaling. With Photoshop, make use of the "Print with Preview" function and switch off the colormangement again.



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- The printer driver based colormangement has to be switched off. iColor Print needs raw color output without any correction. Refer to the documentation of the specific printer and driver software.



- Wait at least 30 minutes before measuring a testchart.

Select a testchart

- Select a measurement device and an appropriate testchart for the profiling task.



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Red – Error

- Solid—instrument is in an error state. Connect to computer or perform an instrument reset.
- Two red pulses then solid green—target or calibration measurement failure has occurred. Rescan and continue.

Blue – Clear Memory

- Solid—instrument in manage memory mode. Used to clear scanned memory and Target ID data.

Miscellaneous

- Rainbow Mode (cycling)—Spectral data downloading or instrument in battery refresh mode.
- Indicator Light Off—instrument in measurement process or shutdown mode (remote operation). Press the power on switch to wakeup the instrument, or recharge battery.

- How to clear scan and target ID data from the instrument memory:

1. In normal operation mode (solid green), rapidly press the Operation button three times to enter clear memory mode (solid blue).
2. Press and hold the Operation button (approx. 3 seconds) until the instrument beeps and the indicator light goes out.
3. Release the Operation button. The instrument beeps twice and the indicator light flashes twice. The indicator then returns to solid green.

- How to reset the Instrument:

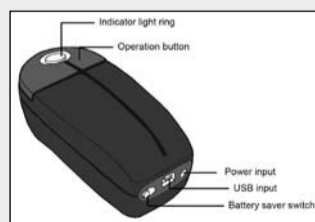
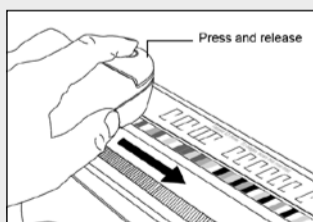
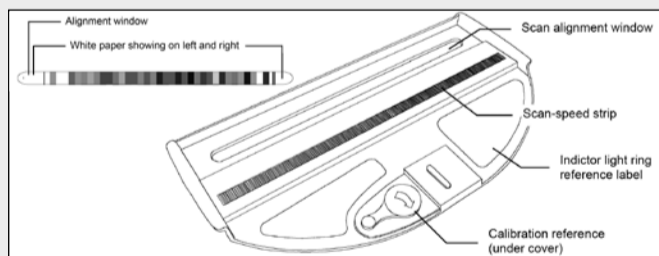
1. Disconnect the instrument from the computer and power adapter
2. With the instrument on or off (power down mode), slide the power switch at the back of the device to the on (right) position and hold.

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Basic operation

- Start measuring the testchart. Already measured patches are indicated by highlighting them in the graphics. Always choose "Scan-Row" as the measurement procedure with the Quato charts.

DTP 20/Pulse



- At first refresh and load the integrated battery over night. If the available power is lower than 25%, the power supply is needed.

- The indicator light ring tells the status of the DTP20 device:

Green – Normal Operation

- Solid—instrument is on and ready to read.
- Slow pulsing—complete target measured.
- Two pulses then solid—confirmation of a successful measurement or calibration.
- Fast pulsing—instrument is in a busy state.

Yellow – Calibration

- Solid—instrument is in calibration mode.

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3. Press and release the Operation button and then release the power switch.

The indicator light turns solid green, indicating the instrument is reset. The instrument is now ready for measurements.

- It is possible that the Pulse/DTP20 does not correctly recognize the chart's Target-ID (TID) and Stripe-ID (SID). Therefore it is recommended to switch off the Target-ID recognition.



- Before performing any measurement, the Software will perform a white-calibration. Position the instrument over the calibration reference on the guide. While the LED is solid yellow, hold the instrument steady, press and hold the Operation button to initiate calibration. The indicator light remains yellow during the calibration. If the calibration is successful, an audible "beep" sounds and the indicator turns solid green. Release the Operation button and remove the instrument from the calibration reference. Replace the reference cover.

Measure a testchart

- Place the guide on the first row of the target (if TID is off) and start to measure. Press and release the Operation button and wait for an instrument "beep" or the green indicator light to turn off before starting.
- In one continuous motion, slide the instrument across the first row of patches and stop on the white paper at the other end. The indicator light does not illuminate during a scan.
- The indicator light will pulse green two times, the instrument will beep, and the light changes to solid green (dim) after a successful

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scan. You are now ready to scan the 2nd row of patches.

- Lift the guide and center the scan alignment window over the second row of patches and scan the second row as previously explained. Continue with remaining rows until completed.
- The indicator light slowly pulses green. This is an indication that the target has been completely measured.
- If a measurement error occurs, iColor Print will force you to remeasure the row again.
- Recently measured patches are highlighted with a yellow border and the high saturation patches indicates already measures rows.



- Save your measurement data for future reference. You can create different profiles out of one measurement. When using the DTP20 (Pulse) you can upload offline measurements to iColor Print. If a measurement is available in the DTP20's memory, iColor Print will

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ask you either to synchronize or to delete the stored measurement.

- If you have questions regarding the measurements and the device, please refer to the documentation of the specific device.

Datacolor 1005

- The Datacolor 1005 does not support scanning measurements. All colors have to be measured patch by patch.
- Prior to the measurement, iColor Print will perform a calibration on the black and/or white calibration tile.
- To start the measurement, simply press the button on the top front of the Datacolor 1005 device.



- If a measurement error occurs, iColor Print will force you to remeasure the patch again.
- Recently measured patches are highlighted with a yellow border and the high saturation patches indicates already measures patches
- Please keep in mind, that the Datacolor is optimized for RGB color readings. CMYK readings are possible but not recommended.

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Profile setup (RGB)

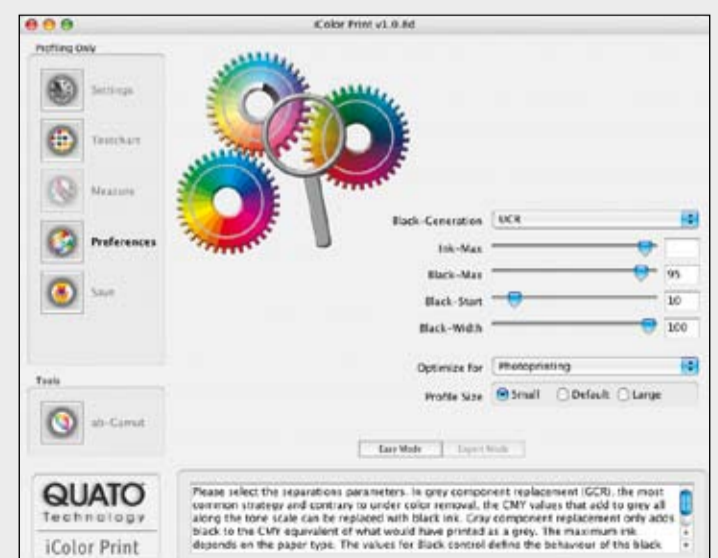
- Please select the profile size (the larger the profile, the more precise the profile is) and the optional optimization for Photoprinting. This adjusts the perceptive intent for photographic print jobs.

Profile setup (CMYK)

- Choose between Easy- or Expert-Mode.
- When running in Easy-Mode, iColor Print analyzes the readings from the patches and anticipates the right strategy to create a profile for an output system. Please select the profile size (the larger the profile, the more precise the profile is).

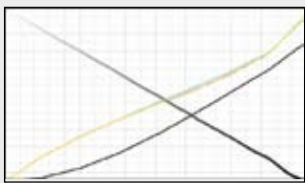
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- The Expert-Mode allows full access to the separation parameters. GCR and GCR Max are most commonly used with Offset Printing Devices while MaxK belongs to Laserprinters. The Ink-Limit and the behaviour of the black (contrast) can also be adjusted individually to meet the specifications of the base printing machine.
- Using the advanced parameters requires some fundamental knowledge about printing technology.
- Please select the profile size (the larger the profile, the more precise the profile is).
- The optional optimization for Photoprinting adjusts the perceptive intent for photographic print jobs.

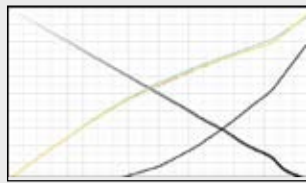


- The following tonal response curves illustrate the different separation setups:

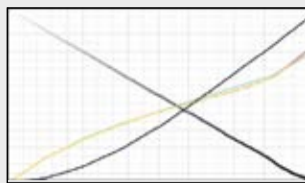
Automatic



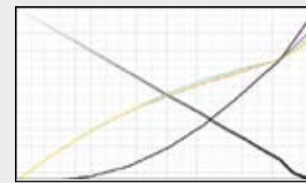
Inkjet automatic



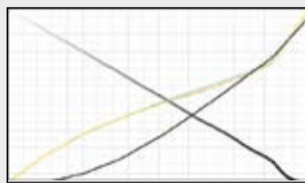
Offset automatic



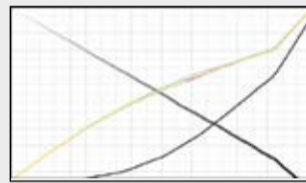
Manual GCR



GCR default



UCR default



Under color removal (UCR) is the process of eliminating amounts of yellow, magenta, and cyan that would have added to a dark neutral (black) and replacing them with black ink during the color separation process.

In grey component replacement (GCR), contrary to under color removal, the CMY values that add to grey all along the tone scale can be replaced with black ink. Grey component replacement only adds black to the CMY equivalent of what would have printed as a grey.

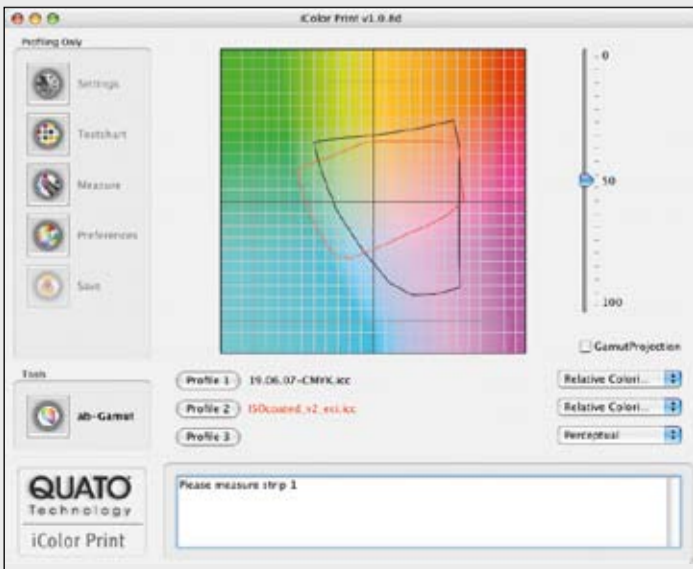
Saving the profile

- The ICC-profile is automatically stored in the profiles folder of the operating system and is then available to any application:

Mac OS X: /libaray/colorsync/profiles
 Windows: system32/spool/drivers/color

Gamut-Viewer

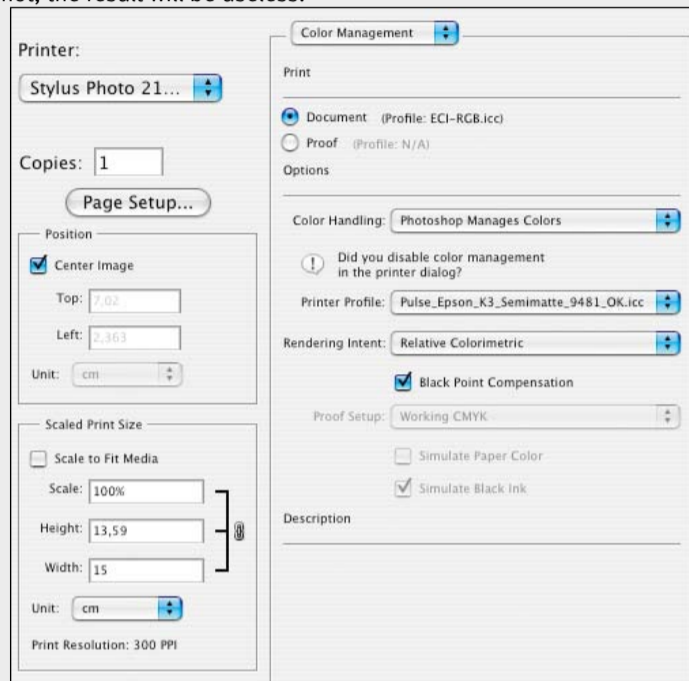
- The Gamut-Viewer shows the recently creates profile (Profile 1) and can load up to two additional profiles to review the gamut size and shape. Additionally, the rendering intents can be individually selected for every profile.
- The slider on the right allows to pass through the different luminance levels.



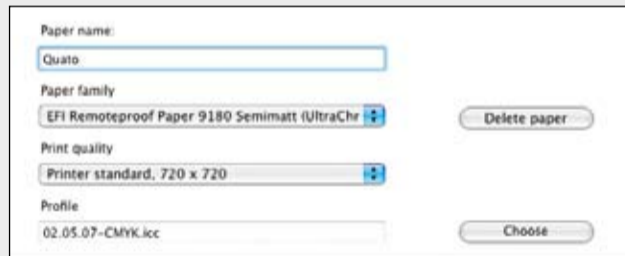
- The gamut projection will show the maximum gamut size compared to up to two other profiles. To switch from luminance levels to projection or vice versa, simply select or deselect projection.

Printing with the created profile

- Depending on the abilities of the printer driver, the ICC-Profile can be either directly used inside the driver or the output application has to take control over the color rendering and the ICC-Profile.
- If an output application takes over the color control, please make sure that the printer driver's color management is switched off. If not, the result will be useless.



- If a printer driver takes control over the color rendering, please make sure that the output application does not perform any color adjustment.
- A created CMYK-Profile can also be used in Raster Image Processing (RIP) applications. Please refer to the user manual of the RIP to learn how to set up the color workflow with a custom paper profile.



Softproofing with the created profile

- The created iCC-Profile can also be used to display a high quality softproof on the screen.
- For Photoshop, open the "view" menu and select a custom proof setup. Select the paper profile (the created profile) and make use of the same rendering intent that is used during the target printing.
- To simulate the paper color, select "simulate paper color".

