

ORIS FLEX PACK// WEB
Version 2.0.6
User Manual



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REFERENCE

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INTRODUCTION

1 Before You Begin

About ORIS Flex Pack//Web

Professional Contract Proofing

ORIS Flex Pack//Web is the professional contract proof system of choice for inkjet printers. It combines color management, high-speed output and proofing-specific media. It includes setup wizards, iterative printer calibration and iterative color matching.

Superior spot color handling, Hexachrome support, multi-channel GOP profiles and color-accurate dot proofing all add up to make ORIS Flex Pack//Web the most-used color proofing software on the market.

Package Proofing

ORIS Flex Pack//Web supports printers with white ink technology such as Epson Stylus Pro WT7900. This allows you to produce high-quality contract proofs for flexible packaging on both clear and opaque substrates.

Using Roland DG printers you can produce contract-quality halftone proofs with white, metallic silver and clear ink (varnish) on original printing substrates.

Use Roland printers with XG INKS (CMYK+orange+green) to achieve an extended color gamut allowing you to reproduce virtually any spot color to contract proofing standards.

Halftone Dot Proofing

ORIS Flex Pack//Web can also proof the 1-bit files produced by a RIP. This provides increased reliability, because you proof the same data that will go to press.

The program can also create halftone proofs from continuous tone data.

Remote Access via Web Browser

ORIS Flex Pack//Web can be used in a web-based environment that provides color-matched job control and output anywhere in the world.

All you need is a web browser (ORIS Flex Pack//Web Client). The Web Client can access the ORIS Flex Pack//Web Server from any remote location over the Internet or local network.

Soft Proofing

ORIS Soft Proof allows you to create color-accurate proofs for viewing on calibrated monitors and to send the reviewer's assessment (approved or rejected) back to ORIS Flex Pack//Web.

ORIS Soft Proof uses the same color management as ORIS Flex Pack//Web. So you can expect the same contract proof quality results whether on paper or on screen.

Adobe PDF Print Engine

The PDF Print Engine built into ORIS Flex Pack//Web ensures that proofs are consistent with the print results achieved with an Adobe RIP.

System Requirements

ORIS FLEX PACK// WEB Server

- Windows 8, Windows 7 Professional, Vista Business, XP Professional (SP3 or higher), Server 2008, or Server 2003 (SP2 or higher)
- Internet Explorer Version 8 or higher
Version 10 or higher is recommended for optimum performance.
JavaScript must be enabled.
- If Internet Explorer Version 9 or lower is used:
The Java Runtime Environment (RTE) Version 6 Update 10 or higher must be installed. Java must be enabled in Internet Explorer.
Otherwise uploading files via 'drag and drop' will not be possible.

If the Java Runtime Environment is not yet installed on your computer, ORIS Flex Pack//Web will install it automatically. The installation program will not automatically update the Java RTE, if it is installed already. In this case you have to update it manually.

- Dual-core CPU, 4 GB RAM, 250 GB HDD, DVD drive, 100 Mbps network adapter (minimum requirements)

Optimum performance with Intel Core i7 or similar, 4 GB RAM or more, 500 GB or more system disk

- Measurement device
- Software license for ORIS Flex Pack//Web
- Software license for your printer
- Profiling software

Only required if you do *not* use iterative color matching and therefore work with ICC profiles. We recommend X-Rite ProfileMaker. This tool can be ordered from CGS.

Using a personal firewall:

- Access from ORIS Flex Pack//Web Clients is via TCP port 80. Make sure access to port 80 is not blocked.
- If installing ORIS Flex Pack//Web fails owing to access problems, temporarily deactivate the personal firewall while reinstalling the software.

Using Panda Antivirus

There have been reports that this software causes file processing in ORIS Flex Pack//Web to become extremely slow.

Security Warning

ORIS Flex Pack//Web does not automatically solve security issues arising from connecting a web server to the Internet. We strongly advise against a direct Internet connection. You should use a proxy server or router with an active firewall. If you need help, CGS is glad to assist you.

Refer to page 17-9 for more details.

Optimum Computer Performance

We recommend the following computer equipment for optimum performance and high throughput:

- Intel Core i7 or similar
- 4 GB of RAM or more
- 500 GB hard disk capacity (system disk) or more
- Windows 7
- Internet Explorer Version 10

Computer Name

The computer name should conform to the DoD Internet Host Table Specification (RFC 952). Note that underscores are invalid characters.

Note: Some browsers such as Internet Explorer refuse to accept *cookies* if there is an underscore in the server's name, even if the browser has been set to accept cookies. As a consequence, users are unable to log in.

ORIS FLEX PACK// WEB Client

Only required for uploading files via 'drag and drop' if Internet Explorer Version 10 or higher is not used:

- Windows: Java Runtime Environment Version 6 Update 10 or higher
- Macintosh: Java for Mac OS X 10.4, Release 9 (J2SE 5.0 Version 1.5.0_19) or higher
- Java must be enabled in the browser.

The following browsers are supported:

- Internet Explorer 8 (or higher version)
- Safari 3.2
- Opera 9
- Mozilla Firefox 3

Set the browser to accept *cookies* and enable JavaScript.

Refer to *Remote Proofing* (page 17-1) for more details.

Soft Proofing

- Acrobat Standard or Professional, Version 8 or higher
- Color management and paper color simulation must be enabled in Acrobat.
- PDF files must open in Acrobat, not in the browser window. Configure Acrobat and the web browser accordingly.
- ORIS Soft Proof plug-in V3.0.5, available from the CGS website.
- The monitor must be calibrated and profiled within the last 30 days. Its color space must be sufficiently large.

Refer to page 19-1 for more details.

Halftone Dot Proofing

Proofing halftone data (SCREENDOT):

- Screened 1-bit test charts, screened color bars
- Special RFP files created from these screened test charts

Creating halftone proofs from CT data (SCREENDOT PLUS):

- Special RFP files for this printing mode

These files must be created by the user. Refer to page 18-2 for more details. Halftone proofing requires a separate software license.

Embedded Measurement Devices

Requirements for using measurement devices embedded in printers:

- Install the printer driver on the computer on which ORIS Flex Pack//Web runs. You cannot use shared network printers.
- Connect Canon iPF and HP DesignJet Zxx00 printers via network, not USB. Do the same when using Epson Stylus Pro printers on Windows 64-bit operating systems.
- Connect Epson printers to a STANDARD TCPI/IP PORT. Do not use the Epson Printer Port Monitor.
- Epson SpectroProofer devices communicate via the TCP/UDP ports 4108 and SNMP port 161. These ports must not be blocked by a firewall.

Supported Formats and Hardware

Supported File Formats

ORIS Flex Pack//Web can process files with the following formats:

- PDF, PDF/X (composite or separated)
- PostScript (composite or separated)
- EPS
- DCS (single file or multiple files)
- TIFF (with spot colors)
- TIFF/IT
- Fuji FinalProof TIFF (SOJ, TIF, EOJ)
- Scitex Handshake
- Separated multi-file grayscale TIFF (see page 26-6)
- JPEG
- Bitmap
- Scitex CT (CT, SCT, CH)
- Linework (LW, SLW, NLW, HC)
- Lab images and 16-bit images
- 1-bit TIFF (CT or halftone)
- LEN (1-bit FlexRIP files)
- » Related topics:
 - PRINTING MULTI-FILE FORMATS (PAGE 15-2)
 - PROOFING HALFTONE DATA (PAGE 18-1)

Supported Hardware

Printers

ORIS Flex Pack//Web supports any printer with a Windows driver, including large-format printers from Canon, Epson, HP and Roland. Most of these printers can be operated using a special printer driver built into ORIS Flex Pack//Web. These drivers provide superior printing results.

Measurement Devices

ORIS Flex Pack//Web supports most of the spectrophotometers and densitometers commonly used today. Measurements are directly transmitted from the measurement device to ORIS Flex Pack//Web.

Measurement devices embedded in Canon, Epson and HP printers are also supported. See also page 1-5.

Refer to the online help file for a completed list of supported printers and measurement devices.

Supported Measurement Standards

ORIS Flex Pack//Web allows you to measure any test chart for which a supported reference file is available. Reference files of the following types are supported:

- ANSI/CGATS.17-2009 text files (*.txt)
Simple text files with tabular information that use tabs to separate the columns. This standard was set up in 2009 by the ANSI Committee for Graphics Arts Technologies Standards (CGATS).
- ColorPort files (*.xml)
XML-structured files created with the ColorPort software from X-Rite.

ORIS Flex Pack//Web supports measurement files with ANSI/CGATS.17-2009 text file format (*.txt). You can load the data measured and saved with any third-party application if the measurement file complies with this standard.

Software Licenses

Base License

O-FLEX	ORIS Flex Pack//Web Includes the license for using one Roland printer with up to 44" media width (VersaCAMM VS-300 or VS-420). Also includes a license for contract proofing of halftone data (SCREENDOT).
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- » RELATED TOPICS:
- HALFTONE PROOFING (PAGE 7-1)
 - ITERATIVE COLOR MATCHING (PAGE 1-14)
 - FINE TUNING (PAGE 25-1)

Printer Licenses

Each printer operated with ORIS Flex Pack//Web requires a separate printer license. The printers fall into various categories depending on the maximum paper format:

O-CTW-S (Small)	• Epson Stylus Pro 3800, 3850, 4450, 4800, 4880, 4900, 4910 • Epson Maxart PX-5800, 6250S, 6550, H6000 • Canon iPF5000, iPF5100 • Any Windows printers up to A3++ format
O-CTW-M (Medium)	• Epson Stylus Pro 7450, 7600, 7800, 7880, 7890, 7900, 7908, 7910, WT7900, WT7910 • Epson Maxart PX-7550S, 7000, 7500, 7550, H8000, W8000, H7000 • Canon iPF650, 655, 6100, 6200, 6300, 6350, 6400, 6400S, 6410, 6410S • HP DesignJet Z2100, 3100 (24") • Any Windows printer up to A1 format
O-CTW-L (Large)	• Epson Stylus Pro 9450, 9600, 9800, 9880, 9890, 9900, 9908, 9910, 10600, 11880 • Epson Maxart PX-9000, H9000, 9500, 9550, 9550S, H10000, 10000, 20000 • Canon iPF760, 765, 8000S, 8100, 8300, 8310, 8400, 8400S, 8410, 8410S, 9000S, 9100 • HP DesignJet Z2100, Z3100 (44"), Z6100 • Any Windows printer over A1 format
O-CTW-ROL	Roland printers up to 44" format: • Roland VersaUV LEC-330, 300A • Roland VersaCAMM VS-300, VS-420
O-CTW-ROXL	Roland printers over 44" format: • Roland VersaCAMM VS-540, 640 • Roland SOLJET PRO4 XR-640

The *Small* license is included in the *Medium* and *Large* license. The *Medium* license is included in the *Large* license.

Operating multiple printers simultaneously on the same computer requires an additional printer license for each printer.

O-FLEX-ROL	Additional printer license for Roland VersaCMM (VS, VSi) and SOLJET PRO4 (XR) printers up to 44"
O-FLEX-ROXL	Additional printer license for Roland VersaCMM (VS, VSi) and SOLJET PRO4 (XR) printers larger than 44"
O-FLEX-UVL	Additional printer license for Roland VersaUV LEC and LEJ printers up to 44"
O-FLEX-UVXL	Additional printer license for Roland VersaUV LEC and LEJ printers larger than 44"

Licenses for Optional Features

A separate software license is required for the following feature:

O-FLEX-OD-PG	ScreenDot Plus This license is required for two features: • Creating halftone proofs from CT data • Iterative spot color optimization for SCREENDOT and SCREENDOT PLUS print queues
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- » RELATED TOPICS:
- HALFTONE PROOFING (PAGE 7-1)

Entering Licenses

Do the following to enter licenses for activating ORIS Flex Pack//Web or to update your licenses:

1. Select HELP | LICENSE INFO.
2. Click on the ADD LICENSE button.
3. Select the license file you have received from CGS.
4. Restart ORIS Flex Pack//Web.

Demo Mode

ORIS Flex Pack//Web runs in demo mode if started without a valid software license. If used in demo mode, the program is fully functional for 30 days with the following limitations:

- Color tables created in demo mode cannot be used with a licensed ORIS Flex Pack//Web version.
- Watermarks are added arbitrarily.
- Optional features that require an additional license are unavailable.

After the 30-day period has expired, output is no longer possible.

Installation

1. Connect the printer and measurement device to your computer.
2. Install the driver provided with the measurement device.
3. Install the manufacturer's original printer driver.

There is no Windows printer driver available for Roland DG printers. Create a local generic TCP/IP printer with the name *Roland VS-640*, for example (depending on the printer model).

4. Connect the ORIS Flex Pack//Web dongle to your computer.
5. Install ORIS Flex Pack//Web.

This will automatically install and create the following:

- Apache Web Service
- MySQL Server
- Java Runtime Engine
- Windows user named 'ORIS-Service'

6. Install the ORIS Flex Pack//Web plug-in for your printer.

Plug-ins are available on the ORIS Flex Pack//Web installation CD and on our website <http://www.cgs-oris.com>.

Note: By default, the program installs on your system disk drive (usually C:), but you are free to choose any other drive (such as D:). However, note that there are files that are always stored on the system drive such as the Apache Web Server, MySQL database, print spooler and temporary files. Therefore some disk space on your system drive is always used.

Starting ORIS Flex Pack//Web

Select **START | ALL PROGRAMS | CGS | ORIS FLEX PACK WEB** or click on the shortcut to this program created on the desktop. You can only start one instance of this program.

A security warning like that shown in Fig. 1-1 appears when you start the program for the first time. It appears because the program tries to run a Java applet located on the Web Server.

This applet is an important module of ORIS Flex Pack//Web. Please trust it, otherwise it will be impossible to upload files via 'drag and drop'.

The main window of the ORIS Flex Pack//Web Server application appears (see Fig. 1-2).

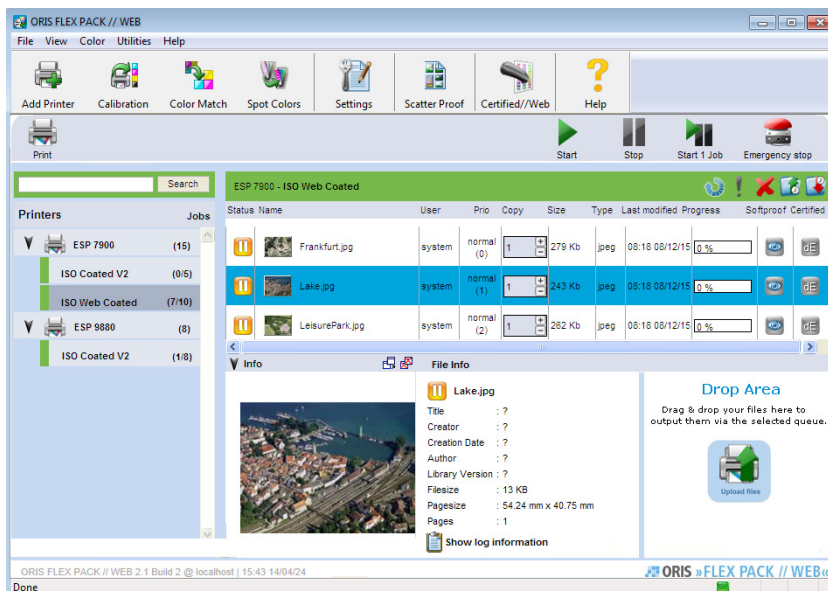
» RELATED TOPICS:

- SETTING UP CONTRACT PROOFERS (PAGE 13-1)
- CONTROLLING JOBS AND QUEUES (PAGE 16-1)
- DETACHING AND MOVING TOOLBAR (PAGE 26-9)

Fig. 1-1 *Security Warning for Java Applet*



Fig. 1-2 Main Window of ORIS Flex Pack/Web Server



Important Terms and Concepts

Output Queue

An output queue is a holding area for jobs waiting to be printed or converted in a specific way. Output queues are listed under the respective printers.

Every output queue is assigned to a WATCHED FOLDER. Jobs added to this folder are output automatically using the settings of the queue.

Use the **Setup Wizard**  to create and configure an output queue. You can define multiple queues for a printer, each with a different setup.

The settings of an output queue can be modified using the  button.

» RELATED TOPICS:

- MODIFYING OUTPUT QUEUES (PAGE 13-7)
- OUTPUT VIA WATCHED FOLDERS (PAGE 15-1)
- MANAGING OUTPUT QUEUES (PAGE 16-1)

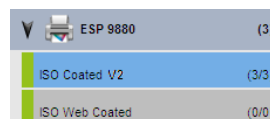
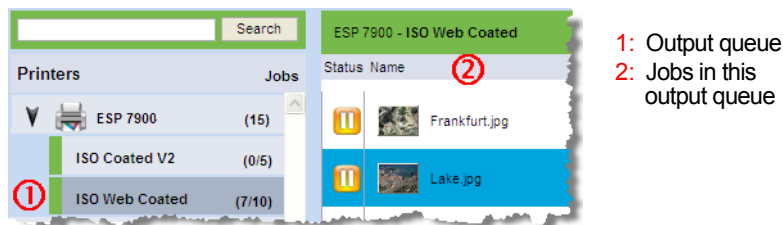


Fig. 1-3 Output Queues



ScreenDot and ScreenDot Plus

These are the names of two printing methods for halftone data:

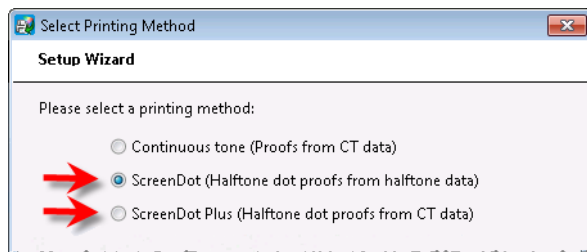
- SCREENDOT
Proofing halftone data, e.g. 1-bit TIFF or LEN files from a RIP
Requires the use of *screened* test charts and color bars as well as special RFP files created with these screened test charts
- SCREENDOT PLUS
Creating halftone dot proofs from continuous tone data
Requires special RFP files for this printing mode

These printing methods are supported for specific printers only. A separate software license is required for this functionality (see page 1-9).

» Related topics:

- LICENSES FOR OPTIONAL FEATURES (PAGE 1-9)
- RFP FILES (PAGE 14-3)
- TEST CHARTS, COLOR BARS, RFP FILES (PAGE 18-2)
- CREATING REFERENCE PRINTER PROFILES (PAGE 23-1)

Fig. 1-4 Setup Wizard – Printing Method



Printer Driver Settings

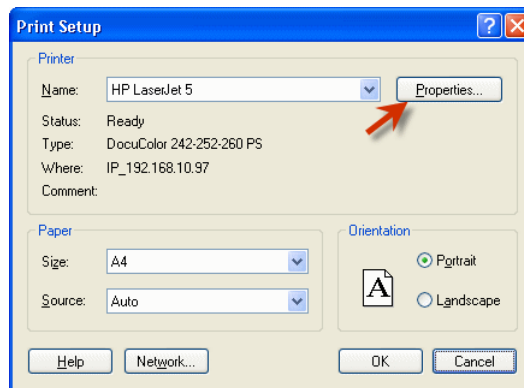
For most of the supported printers there is a proprietary printer driver built into ORIS Flex Pack//Web. This driver provides better results than the Windows driver.

If there is only a Windows driver, a dialog like that in Fig. 1-5 appears. It allows you to specify the printer driver options.

It is important to disable any color management settings here!

Color management will be done by ORIS Flex Pack//Web. Unwanted results would be produced if print jobs were additionally color-managed by the Windows printer driver.

Fig. 1-5 'Print Setup' Dialog



Iterative Printer Calibration

Refer to page 14-1 for details on terms related to printer calibration.

Iterative Color Matching

The process of matching a calibrated printer to a target. The target is usually an ICC profile defining standard printing conditions.

This process is iterative because it consists of several rounds of printing and measuring a test chart. This process produces and progressively optimizes the color table (ORIS_DAT file).

Use the Setup Wizard to start iterative color matching (see page 13-4).

Benefits:

- Very accurate results. No manual fine tuning required.
- Can be done by *anyone*, not only by color experts.
- No ICC device profiles and therefore no profiling software required.
- Black composition can be modified.

Fig. 1-6 Selecting the Iterative Color Matching Method

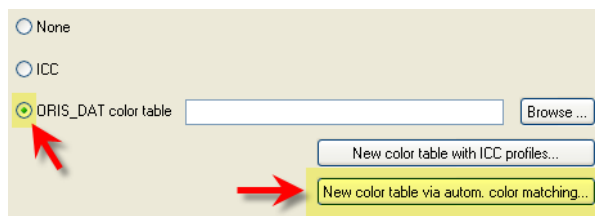
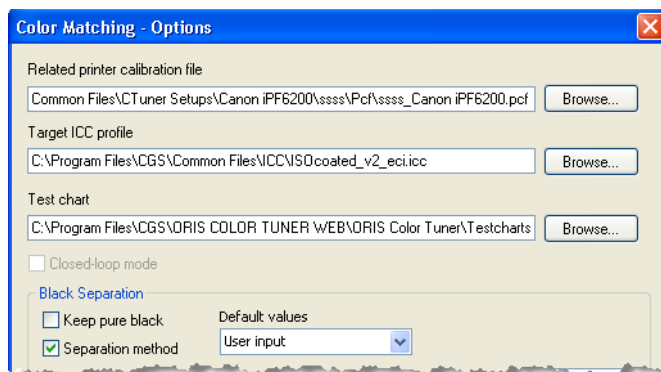


Fig. 1-7 'Options' Dialog for Iterative Color Matching



Enable KEEP PURE BLACK to prevent the addition of C, M or Y to the colors on the gray axis.

Fig. 1-8 Setup Wizard – Evaluating Optimized Color Match

Printed	Status	Δ dE	Max. dE (C, M, Y, K)	StdDev. dE
04/16/07 16:26:13	calculated	3.17	10.66 (100, 100, 20, 0)	1.43
04/16/07 16:29:36	measured	0.77	4.63 (100, 20, 20, 10)	0.73

If you want to define the paper color, click PAPER WHITE SETTINGS and specify the CMYK values. Set all values to **0** to switch off the paper white simulation.

Color Matching with ICC Profiles

Color matches can also be created from two ICC profiles, one characterizing the proofer and one the printing process.

This method is faster than iterative color matching, but the resulting color matches may be less accurate. The black composition is defined by the ICC profile and cannot be changed.

There are two ways of creating color matches with ICC profiles:

Applying ICC Profiles Directly

The ICC profiles are applied directly when a job is printed.

There is no color table. It is therefore impossible to optimize (fine-tune) a color match or to incorporate gradation curves.

This method allows you to use N-channel ICC profiles such as Hexachrome (CMYK+orange+green).

Fig. 1-9 Selecting the 'Apply ICC Profiles Directly' Method

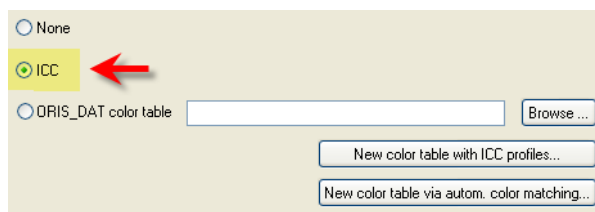
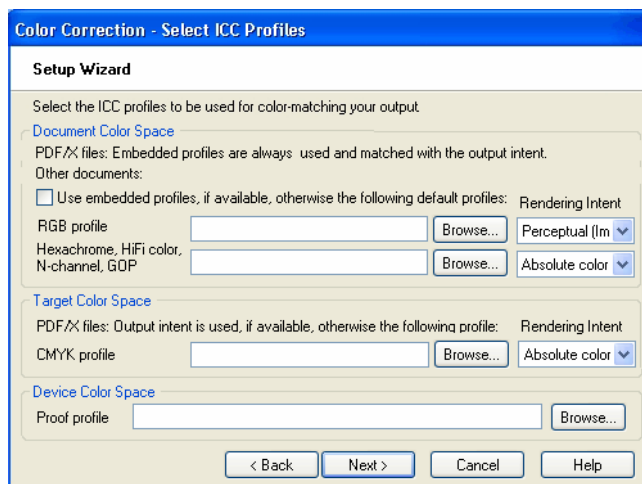


Fig. 1-10 Setup Wizard – Specifying ICC Profiles



Creating a Color Table from ICC Profiles

The ICC profiles are converted into a color table (*.cc). This file must then be converted into a final color table format (ORIS_DAT file, *.dat). You can optimize the color match manually (fine tuning). You can also incorporate gradation files into the ORIS_DAT file, e.g. to eliminate color casts.

Fig. 1-11 Selecting the 'Color Table from ICC Profiles' Method

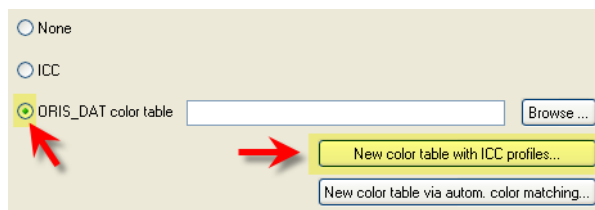
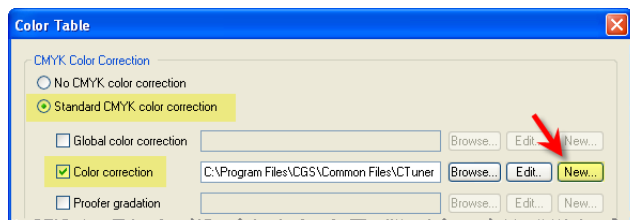


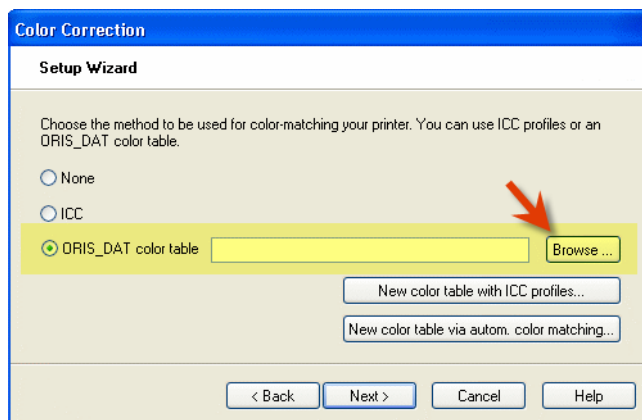
Fig. 1-12 Setup Wizard – ‘Color Table’ Dialog



Applying Predefined Color Tables

ORIS Flex Pack//Web has been certified by SWOP, FOGRA and ECI for simulating standard printing conditions on various Canon, Epson and HP printers using different inks and proofing papers.

ORIS_DAT color tables (*.dat) for these printing conditions are available on the ORIS Flex Pack//Web installation CD and on the CGS website <http://www.cgs-oris.com>. The figure below shows how to load these color tables using the Setup Wizard.



Embedded Measurement Devices

ORIS Flex Pack//Web supports the measurement devices embedded in Canon, Epson and HP printers. These printers can be linearized and calibrated in a fully automated process without any user intervention. Canon and Epson printers can also be color-matched in a fully automated process.

This is referred to as a *closed-loop* process. A test chart is printed and measured repeatedly according to the stop criteria specified by the user (e.g. average delta E). Thus the result is optimized progressively.

- » RELATED TOPICS:
- EMBEDDED MEASUREMENT DEVICES (PAGE 1-5)

Fig. 1-13 Stop Criteria for Closed-Loop Calibration

Maximum number of iterations:	5
Average dE better than:	1.
Maximum dE better than:	5.

Spot Color Correction

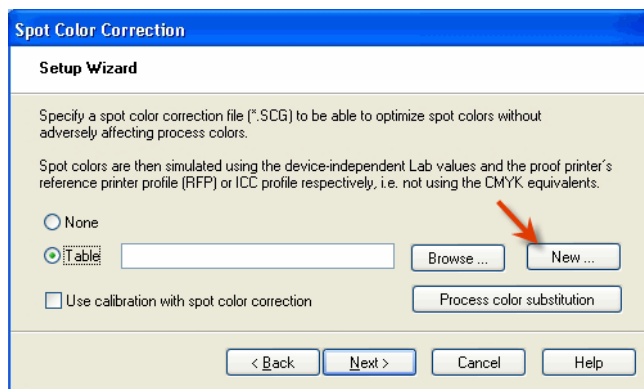
Using a separate color table (SCG file) for spot colors. This provides a very accurate simulation of spot colors located within the proofer's color gamut. It also allows you to optimize spot colors without adversely affecting process colors.

SCG files calculate the spot color simulation from the Lab values in the spot color libraries and the printer characterization file (e.g. RFP file).

If no SCG file is used, the CMYK equivalence values are corrected. They are corrected in the same way as process colors, e.g. using the ORIS_DAT color table.

See also *Spot Color Simulation* (page 22-1).

Fig. 1-14 Setup Wizard – Spot Color Correction



Spot Color Correction

Setup Wizard

Specify a spot color correction file (*.SCG) to be able to optimize spot colors without adversely affecting process colors.

Spot colors are then simulated using the device-independent Lab values and the proof printer's reference printer profile (RFP) or ICC profile respectively, i.e. not using the CMYK equivalents.

☐ None
☒ Table

☐ Use calibration with spot color correction

Browse ... New ...

Process color substitution

< Back Next > Cancel Help

Getting Help

Online Help

The online help file contains all the topics of the User Manual. It additionally provides extensive reference information and explains all of the commands and dialog options of ORIS Flex Pack//Web.

Opening the online help file

Do one of the following:

- Click  on the toolbar.
- Select HELP | HELP TOPICS.
- Press the F1 key.

To get help on a dialog (context-sensitive help)

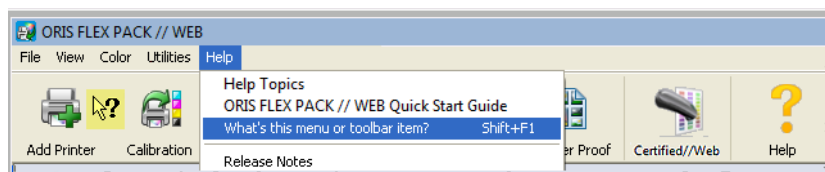
Click the HELP button in the dialog or press F1. The online help document opens and a topic explaining the current dialog appears.

To get help on menu and toolbar

Select HELP | WHAT'S THIS MENU OR TOOLBAR ITEM?.

A question mark is now displayed next to the cursor. Then click on a toolbar button or select a command from a pull-down menu. The online help file opens and a topic explaining the selected item appears.

Fig. 1-15 Getting Online Help on a Toolbar Button



Release Notes

Use the HELP | RELEASE NOTES command to read about the latest additions, modifications and bug fixes for ORIS Flex Pack//Web. The Release Notes may also contain information which could not yet be included in the User Manual or online help file.

CGS Support

The CGS support team offers help with any problems you may encounter. Suggestions from customers contribute substantially to the successful development of our software products.

Make sure you have consulted the documentation and online resources mentioned here before contacting us. Support is free of charge for customers with a Software Support Contract.

Communication with CGS Support and file exchange is exclusively handled via Helpdesk, our online support portal:

<http://helpdesk.cgs-oris.com>

Please contact us at support@cgs-oris.com if you have not yet received your login details for Helpdesk.

User Forum

There is a moderated online forum for users of ORIS software called 'ORIS Board'. Here you can get peer-to-peer support and share information with other ORIS users. CGS staff monitor this forum regularly.

Open the CGS website <http://www.cgs-oris.com> and select SUPPORT | USER FORUM. Register and create a user account if you are a new user. Then log in with your user name and password.

Recommended Publications

We recommend the following publications:

- Rudolph E. Burger, *Color Management Systems*, Color Resource 1993.
- Dr. R.W.G. Hunt, *The Reproduction Of Color In Photography, Printing & Television*, Fountain Press, Tolworth, England, ISBN 0 86343 088 0.
- Prof. Dr. Stefan Brües, Liane May, Dietmar Fuchs: *Postscriptum on Color Management*, LOGO GmbH 1999.

We recommend the following websites:

- European Color Initiative: <http://www.eci.org/>
- International Color Consortium: <http://www.color.org/>

2 Quick Start

Requirements

- Windows 8, Windows 7 Professional, Vista Business, XP Professional (SP3 or higher), Server 2008, or Server 2003 (SP2 or higher)
- Internet Explorer 8 or higher (ORIS Flex Pack//Web Server)
- Internet Explorer 8, Firefox 3, Opera 9, Safari 3.2, or higher (Client)
- JavaScript enabled in browser
- For Internet Explorer 9 or lower:
Java Runtime Environment Version 6 Update 10
Java enabled in Internet Explorer
- Base license for ORIS Flex Pack//Web
- Software license, printer license
- Proofing halftone data: Screened 1-bit test charts and color bars, special RFP files (must be created by user)
- Measurement device

Installation

1. Connect the printer and measurement device to your computer.
2. Install the driver provided with the measurement device.
3. Install the manufacturer's original printer driver.
4. Connect the ORIS Flex Pack//Web dongle to your computer.
5. Install ORIS Flex Pack//Web.

This will automatically install and create the following:

- Apache Web Service
- MySQL Server

- Java Runtime Engine
 - Windows user named 'ORIS-Service'
6. Install the ORIS Flex Pack//Web plug-in for your printer.
- Plug-ins are available on the ORIS Flex Pack//Web installation CD and on our website <http://www.cgs-oris.com>.

Starting Program

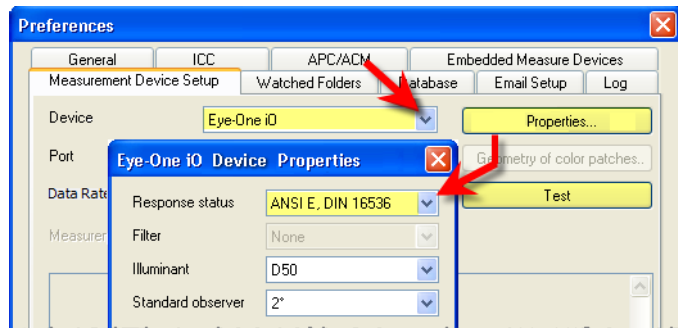
Select START | ALL PROGRAMS | CGS | ORIS FLEX PACK WEB.

Selecting Measurement Device

Select FILE | PREFERENCES, then click on:

- MEASUREMENT DEVICE SETUP if device is connected to computer
- EMBEDDED MEASURE DEVICES if device is integrated into printer

Verify the device properties. The RESPONSE STATUS must be set in accordance with the reference printer profile (RFP file) you are using.

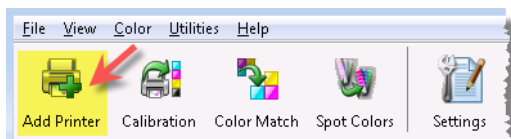


Creating Output Queues

Click  to start the Setup Wizard. Your printer will be set up for contract proofing. You will be guided step by step through this process which includes calibration, color matching and spot color correction.

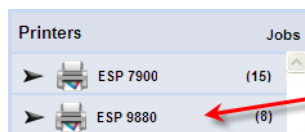
All settings made with this wizard will be assigned to an *output queue*. Output queues are listed under the printer name. Every output queue will be assigned to a *watched folder*. Share the watched folder on the network.

ESP 9880	(3)
ISO Coated V2	(3/3)
ISO Web Coated	(0/0)

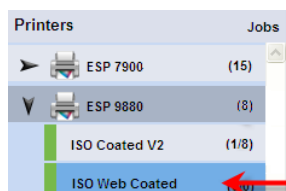


Selecting Output Queues and Jobs

To See the List of Output Queues and Jobs



1. Click on printer.



2. Click on queue to select it.

To Select Jobs

Status	Name	User
☒	Frankfurt.jpg	system
☒	Evening.jpg	system
☒	Boat.jpg	system

- Click on first column (STATUS).
- SHIFT-click to select job range.
- SHIFT-click active job to select all jobs.

Blue background:

- In first column: Job selected
- In complete line: Job active

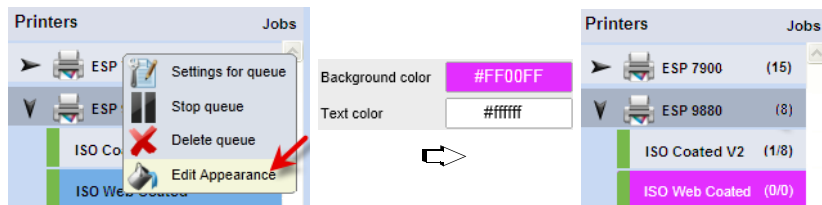
Click here...

To make more room for job list (1)
To enlarge preview image (2)



To Make Queues Stand out Against Others

1. Right-click on queue.
2. Select .
3. Select background and text color.

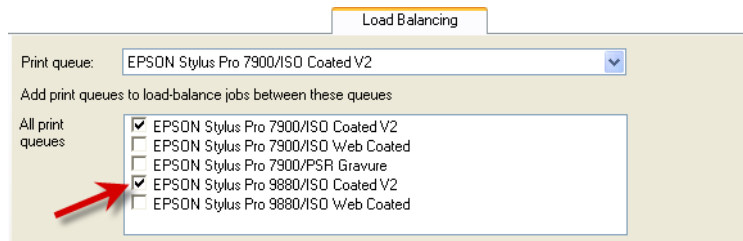


Additional Settings

Select the output queue, then click . This opens a dialog that allows you to verify, correct and add queue settings. Likewise, select a job and click  if you want to modify the settings of this one job only.

Note: The changes will only apply to new jobs added to this queue.

Example: Load Balancing



Printing

To output jobs using the settings defined for a particular queue, use one of the following methods:

Watched Folders

Add the files to the *watched folder* assigned to the output queue.

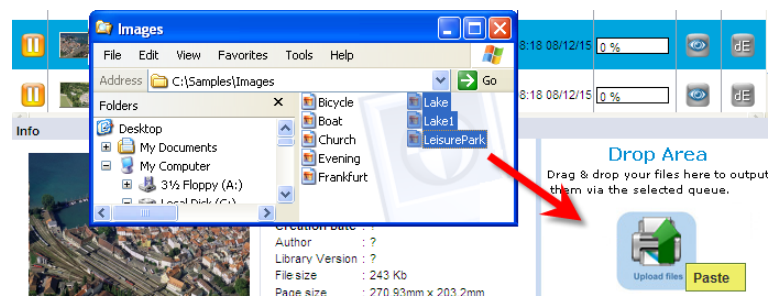
Virtual Printers

Directly in your DTP application (e.g. QuarkXPress), print to a *virtual PostScript printer* that outputs to the queue's watched folder.

Virtual printers have the name ORIS for <printer or format> <queue>.

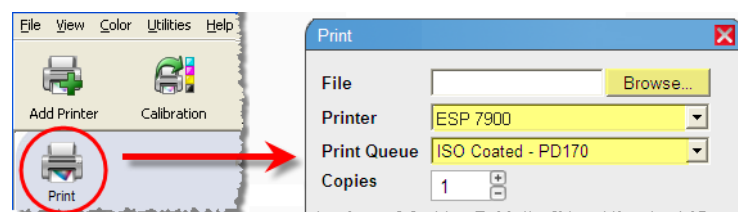
Drop Area

Select the queue. Then drag the files onto the DROP AREA.



Dialog

Click this button, then select a file (only one), the printer and the output queue.



Printing Halftone Data

When using the DROP AREA, upload all separation files *in one go*.

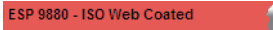
The separation files are only combined into a job if they follow certain file naming conventions. The file name patterns produced by Harlequin, Flex, Prinergy, Studio or Rampage RIPs are supported, for example.

Job Control

Starting and Stopping

Select an output queue, then click

 to process all jobs waiting in the queue. 

 to put all jobs in the output queue on hold. 

 to do the same as , but for all queues of the printer.

Select jobs, then click

 to start the jobs, if they have been put on hold.

 to put the jobs on hold.

 to cancel running jobs (may have side effects!)

Reprinting

 Select jobs, then click this button.

Deleting

 Select jobs, then click this button. Also deletes queues and printers if they are empty (no jobs or queues inside).

Job Status

- | | |
|--|--|
|  On hold (stopped) |  Output successfully |
|  Waiting to be processed |  Output with warnings |
|  Currently being processed |  Output failed |
|  Currently being canceled () | |

Inspecting, Replacing or Omitting Separations

1. Click  or job preview to open enlarged preview image.

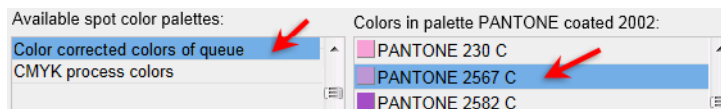


2. Click EXAMINE, SHOW AND CHANGE JOB SEPARATIONS.

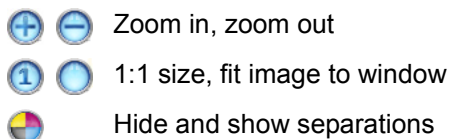
3. Deselect the separations to be omitted.

☒	PANTONE 230 C	☒	PANTONE 230 C	Edit
☒	cut_contour	☒	cut_contour	Edit

- Click **EDIT** to replace the color separation with another separation or to replace a spot color with CMYK.



- Click **OK** and then **UPDATE PREVIEW** or **SHOW MODIFICATIONS**.
- Adjust the preview representation to examine your changes:



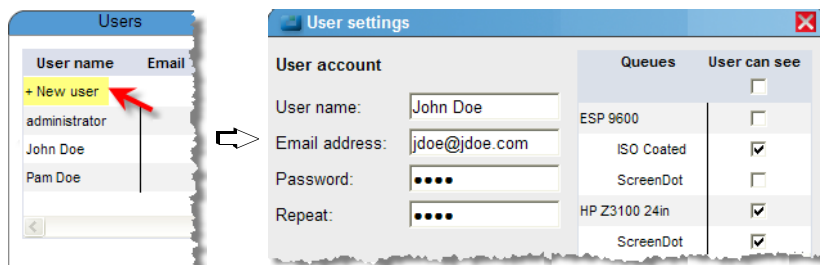
Remote Proofing

Using a web browser (Web Client), proofing, soft proofing and job tracking can be done from remote locations via Internet or local network.

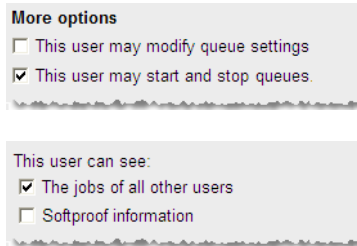
Granting Access to Remote Users

Create a user account for every user who wants to access ORIS Flex Pack//Web queues over the Internet or local network.

- Select **FILE | USER ACCOUNTS**.
- Click on **+NEW USER**.
- Enter the user name, e-mail address and password.
- Select the output queues that should be visible to this user.



5. Set the user rights.



Disable all of the THIS USER MAY... options if the user should be allowed to view jobs only, without the ability to output or change jobs.

If the user should be allowed to see jobs created in a DTP application by printing to a virtual PS printer, enable ...THE JOBS OF ALL OTHER USERS.

Starting Web Client

Enter the following into the browser's address line:

- Internet: DNS name (fully qualified domain name) of the ORIS Flex Pack//Web Server
- Local network: Name or IP address of the computer that runs the ORIS Flex Pack//Web Server software
- Local computer: **localhost**

Then log on with your user name and password.

Using Web Client

The Web Client's user interface is similar to that of the server application. It can be operated in a similar way, but the functionality is restricted.



Click here to modify some of the settings defined for the job or output queue, e.g. scaling or certification requests.



Drag your files onto the DROP AREA to output them using the settings of the selected output queue.

Mozilla Firefox, Google Chrome, Apple Safari:

Drop your files anywhere on the right-hand area of the main window. Alternatively, drop the files on the name of an output queue listed on the left. The queue need not be selected.

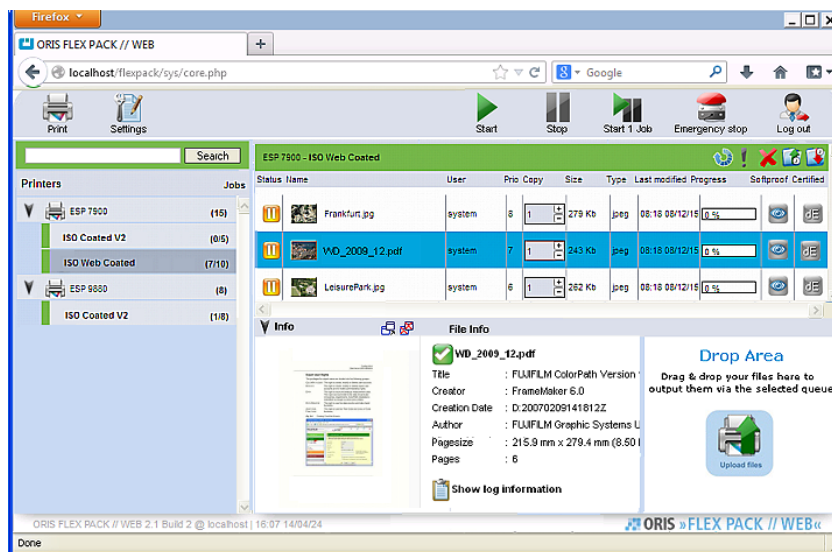


Click here to output a single file. You can make some modifications here, i.e. override the settings of the output queue.



Click here to log out (= F5).

Note: Some buttons may be unavailable, depending on the user rights.
Queues and printers cannot be deleted via Web Client.



Soft Proofing

Requirements

Acrobat Standard or Professional, Version 8 or higher

ORIS Soft Proof plug-in available from the CGS website.

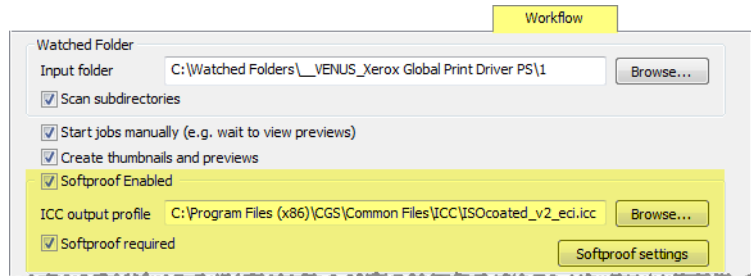
Use plug-in V3.0.4 for Acrobat 8 and 9, V3.0.5 for Acrobat 10 and higher.

Color management and paper color simulation must be enabled in Acrobat. PDF files must open in Acrobat, not in the browser window. Configure Acrobat and the web browser accordingly.

The monitor must be calibrated and profiled within the last 30 days. Its color space must be sufficiently large.

Creating Soft Proof PDFs

1. Select the output queue, then click on .
2. Click on the WORKFLOW tab.
3. Enable the option SOFTPROOF ENABLED, select an ICC OUTPUT PROFILE, then enable SOFTPROOF REQUIRED.



4. Process the files. The low-res PDF files will be created:  => .
5. Click  to open the PDF file in Acrobat.

Status	Name	User	Prio	Copy	Size	Type	Last modified	Progress	Softproof	Certified
	 Frankfurt.jpg	system	normal (0)	1	279 Kb	jpeg	08:18 08/12/15	0 %		

Verifying Soft Proofs in Acrobat

Open ORIS SOFT PROOF Toolbar

Acrobat Version 10 (Acrobat X):

1. Select VIEW | TOOLS | PLUG-IN ORIS SOFT PROOF TOOLBAR.
 2. Right-click each toolbar button and select ADD TO QUICK TOOLS.
- The toolbar is displayed automatically in Acrobat Version 8 and 9.

Viewing Status

-  OK, colors are displayed correctly
-  Uncalibrated monitor or incorrect color management settings

Place a Stamp

-  Approved, viewing status is OK (✓)
-  Approved, viewing status is not OK (✗)
-  Rejected

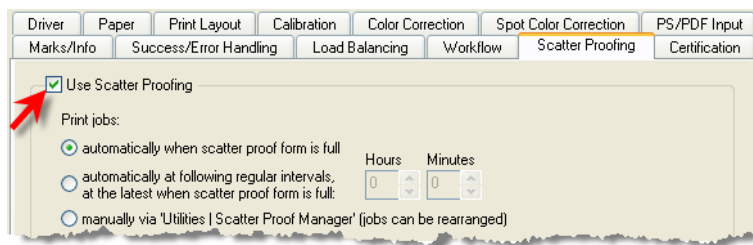
Send Status to ORIS Flex Pack//Web

-  Click this button.
The job will be output if it was stamped with  or .

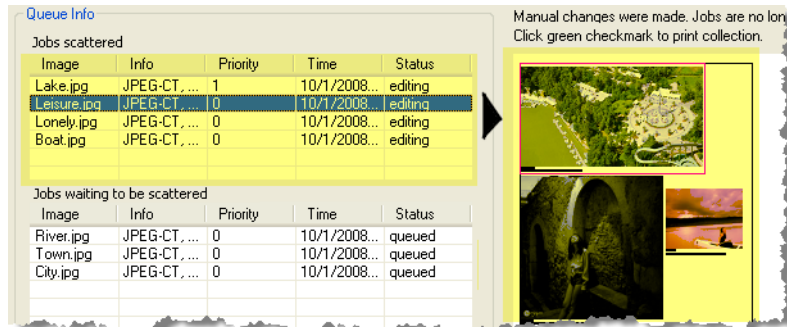
Scatter Proofing

How to print multiple jobs on the same sheet to save paper:

1. Select the output queue, then click on .
2. Enable and configure scatter proofing.



3. Print the jobs.
The jobs are placed on a temporary page (called *scatter proof form*).
They are printed automatically when no further job can be fitted on it.
Click  if they should be printed immediately.
4. Click  to view or edit the scatter proof form (marked up in yellow).



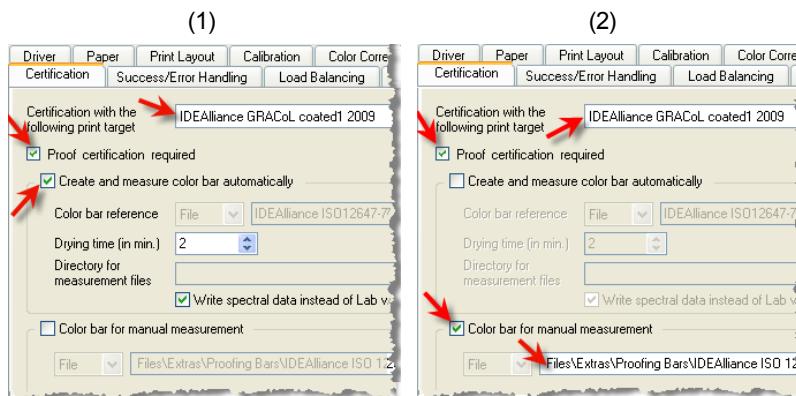
5. Your options here:

Mouse	Rearrange thumbnail images	Only if PRINT JOBS: MANUALLY... is enabled
	Rotate job by 90°	
	Crop image	
	Add waiting job, remove job	Always available
	Delete job	
	Duplicate job	
	Increase and decrease priority	

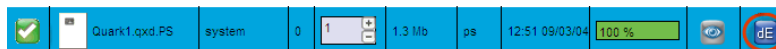
Proof Certification

This functionality requires a software license for ORIS Certified/Web. A 30-day fully functional demo version has been installed automatically. If the database connection is set up accordingly, ORIS Certified/Web can also run on a different computer in the local network.

1. Select the output queue, click on and then on CERTIFICATION.
2. Select an ORIS Certified/Web print target.
3. Enable PROOF CERTIFICATION REQUIRED.
4. Do one of the following (applies to CT data only):
 - Measurement device embedded in printer (1):
Enable CREATE AND MEASURE COLOR BAR AUTOMATICALLY.
 - Measurement device connected to computer (2):
Enable COLOR BAR FOR MANUAL MEASUREMENT, select a color bar.

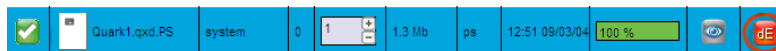


5. Output jobs via this queue. The icon indicates 'certification required'.



6. Printers with embedded spectrophotometer: Proof certification runs fully automatically. The result will be printed on the proof in the form of a 'label' (Epson and Canon printers only). Proceed with step 9.
7. Select the job, then click to start ORIS Certified/Web.
8. Click and measure the color bar.
9. In ORIS Flex Pack//Web, the overall result is indicated as follows:

- Proof within (strict) tolerances
- Proof within standard, but outside strict tolerances
- Proof out of (standard) tolerance



10. Click the , , or icon to open the certification log. It includes details for every color patch and a color space diagram.

Summary dE												
		Tolerances		Tolerances		Deviations		Patch		Color		
		(strict)		(standard)								
Paper white		3		-		8.75		B17		P		
Average		3		-		7.88		-		-		
Maximum		8		-		25.57		B7		G		
Primary colors		5		-		19.03		A1		C		
Spot colors max.		-		-		-		-		-		
Spot colors Ø		-		-		-		-		-		
dh prim. colors		2.5		-		12.40		A7		Y		
dh Ø CMY gray		1.5		-		2.16		-		-		

Measurement Data														
Color	Patch	Target			Actual			Deviations						
		L	a	b	L	a	b	dE	dL	da	db	dH	dC	
A1		55.00	-37.00	-50.00	49.90	-23.50	-37.60	19.03	-5.10	12.53	12.40	4.12	-17.86	not OK
A2		66.90	-24.70	-37.10	66.20	-18.30	-23.70	14.87	-0.70	6.40	13.40	-2.56	-14.63	not OK
A3		79.70	-12.50	-21.80	77.70	-10.70	-11.70	10.45	-2.00	1.80	10.10	-4.39	-9.27	not OK
A4		48.00	74.00	-3.00	46.30	70.90	-3.60	3.59	-1.70	-3.10	-0.60	-0.74	-3.07	OK
A5		60.80	50.80	-6.70	60.00	48.00	-8.50	3.26	-0.80	-2.60	-1.80	-2.18	-2.29	OK
A6		76.40	25.80	-6.90	73.30	25.70	-5.30	3.49	-3.10	-0.10	1.80	1.53	-0.47	OK
A7		89.00	-5.00	93.00	82.70	7.40	93.10	13.91	-5.30	12.30	0.10	-12.40	0.26	not OK
A8		90.30	-4.70	82.60	85.50	2.00	83.00	8.25	-4.80	6.70	0.40	-8.71	0.26	not OK



PACKAGE PROOFING

3 Package Proofing Overview

A cost-effective turnkey solution for flexible packaging proofing and mock-up production

ORIS Flex Pack//Web provides uniquely web-based hard copy and soft proofing in one package. At the heart of the application is our patented four-dimensional iterative color management software which, combined with a specially designed custom interface for Roland VersaCAMM VS series printers, gives you the ultimate in production flexibility for halftone and continuous tone proofing.

All printer features, such as multi-pass and print-and-cut, are supported and the included PANTONE®¹ color libraries enable proofing of special colors, with the possibility of defining custom colors. Furthermore, ORIS Flex Pack//Web offers integrated soft proofing, proof certification and halftone support. Optionally available is a connection to the Esko Color Engine spot color database.

ROLAND VERSACAMM VS SERIES

The revolutionary eco-solvent printer is available in four different sizes from 30–64 inch. In addition to a white and metallic ink, it features Orange and Green, with the specially developed XG INKS, allowing the production of contract quality proofs and prototypes on substrates similar to the original stock, used in flexible packaging. The printer also includes a 'Print & Cut' function to produce adhesive labels and decals, fully supported by the software application.

ORIS MEDIA TRANSFER FILM

The ORIS Media Transfer film is a break-through when it comes to producing packaging mock-ups or proofs on original stock. It is an open-pored synthetic mesh, which can be thermal-transferred at low temperatures on almost any original media, used a standard laminator. Being

1. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

only a few μ thick, it is color-neutral and almost invisible. Printing stock, which can mechanically be processed in the printer, can be laminated first and then be printed on. Alternatively, the transfer film, which features a removable backing paper, can be printed on first and then be transferred. This method is particularly suitable for thin flexible films, aluminum or corrugated board.

XG INKS

Unlike the standard inks, XG INKS have been specifically formulated for proofing applications. The light inks (Lc, Lm) have been replaced with orange and green and the CMYK set has been completely redefined. As a result, the printable color space is significantly larger, so that almost all Pantone colors can be reproduced accurately, a prerequisite for proofing high-quality packaging.

4 Adjusting Printer Hardware

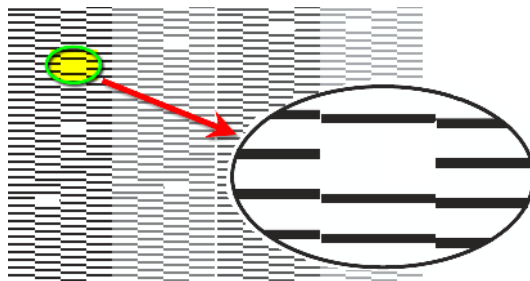
Before using the ORIS Flex Pack//Web system, make sure your Roland DG printer works correctly. The most important steps are explained in the following. Refer to the printer's User Manual for more details.

Cleaning the Print Head

Check whether the print head nozzles are clogged. If required, clean the nozzles to allow them to deliver ink properly. This cleaning is essential for achieving high print quality and should be done on a daily basis.

1. Print a test pattern using the **CLEANING > TEST PRINT** command on the printer's control panel.
2. If there are areas where dots are missing (dot drop-outs), clean the nozzles using the **CLEANING > NORMAL** command.
3. Reprint the test pattern to make sure the nozzles are clean.
4. Repeat the cleaning operation if the problem persists.
5. If the nozzles are still clogged after two or three cleaning cycles, try using the **MEDIUM CLEANING** or **POWERFUL CLEANING** method.

Fig. 4-1 Test Pattern with Dot Drop-out



Media Setup

Various printer settings need to be adjusted according to the size and type of print medium used in order to ensure optimum output quality.

1. Load the print medium.
2. Make the settings explained below using the MEDIA SETTING menu on the printer's control panel.
3. When finished, save these settings as a preset.

It is advisable to base the preset name on the print medium name.

4. Repeat these steps for every print medium.

The next time you use a particular print medium you can set all media parameters in one go by loading the preset you have saved.

Setting Print Heater and Dryer Temperature

The purpose of the print heater is to improve ink adhesion and prevent smudging. The dryer speeds up the ink drying process after printing.

Raise the temperature if the ink forms lumps or smudges or if ink drying is too slow. The optimum temperature varies according to factors such as the type of print medium and the printing mode.

We recommend to set the two temperature values as high as possible. A temperature which is set too high, however, may damage the print medium or cause it to shrink. Be extremely careful when using film.

Correcting Paper Feed (Feed Calibration)

The required amount of paper feed varies subtly depending on the type of print medium, its thickness and the temperature of the media heating system. The paper feed needs to be adjusted to these conditions.

Feed correction is essential for multi-pass printing, where the printer pulls the print medium back several times to print the next layer of ink or varnish. Discrepancies in the feed amount cause misalignment, which usually results in horizontal lines or strips of uneven color (banding).

1. Print the test pattern for feed correction (CALIBRATION > TEST PRINT).
2. Find the rectangles with the smallest gap and overlap.
3. Enter the value indicated there as correction for the current value ▲.
4. Reprint the test pattern to see the result of the correction.
5. Repeat this process several times to find the optimum value.

Installing Printer Driver

Connect the Roland printer to your network and assign an IP address according to the instructions in the printer's user manual.

There is no Windows printer driver available for Roland DG printers. Do the following to create a generic TCP/IP printer:

1. Select the following command on the Windows START menu:
DEVICES AND PRINTERS (Windows 7)
CONTROL PANEL | HARDWARE AND SOUND | PRINTERS (Windows Vista)
PRINTERS AND FAXES (Windows XP)
2. Click ADD A PRINTER.
3. Select LOCAL PRINTER.
4. Create a new STANDARD TCP/IP PORT.
5. Enter the printer's IP address.
6. Leave the standard device type set at GENERIC NETWORK CARD.
7. Select the printer manufacturer GENERIC and the printer GENERIC/TEXT ONLY.
8. Enter the printer name exactly as shown here:

Roland VS-640i	for VersaCAMM VS-640i used with ECO-SOL MAX2 ink
Roland VS-640i XGINKS	... if used with XG INKS
Roland VS-540i	for VersaCAMM VS-540i used with ECO-SOL MAX2 ink
Roland VS-540i XGINKS	... if used with XG INKS
Roland VS-300i	for VersaCAMM VS-300i used with ECO-SOL MAX2 ink
Roland VS-300i XGINKS	... if used with XG INKS
Roland XR-640 XGINKS	for SOLJET PRO4 XR-640 (used with XG INKS)
Roland VS-640	for VersaCAMM VS-640
Roland VS-640 XGINKS	... if used with XG INKS
Roland VS-540	for VersaCAMM VS-540
Roland VS-540 XGINKS	... if used with XG INKS
Roland VS-420	for VersaCAMM VS-420
Roland VS-420 XGINKS	... if used with XG INKS
Roland VS-300	for VersaCAMM VS-300
Roland VS-300 XGINKS	... if used with XG INKS
Roland LEJ-640	for VersaUV LEJ-640
Roland LEC-540	for VersaUV LEC-540

Roland LEC-330

for VersaUV LEC-330

Roland LEC-300

for VersaUV LEC-300 and 300A

Note:

Make sure the printer name is spelt exactly as indicated. The program uses the Windows printer name to identify the ink set installed in the printer.

5 Setting up Flex Pack//Web for Package Proofing

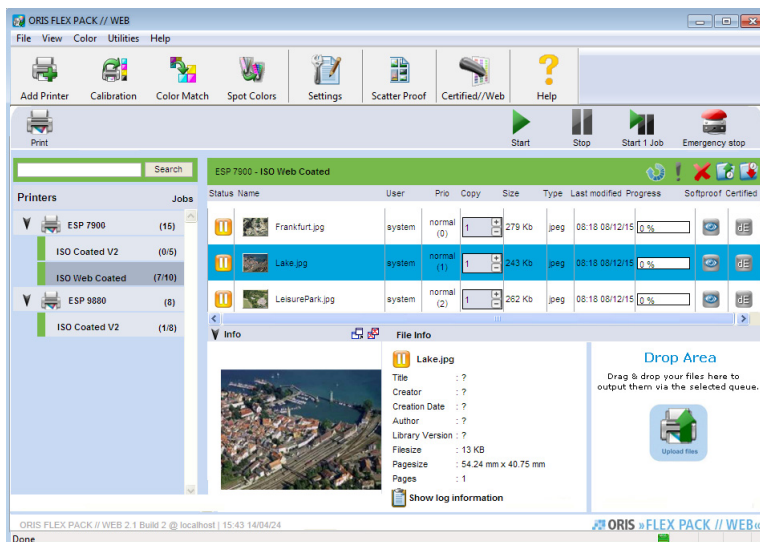
Installing ORIS Flex Pack//Web

1. Plug the ORIS dongle into your computer's USB port.
2. Install ORIS Flex Pack//Web by double-clicking the *.exe file.

Starting ORIS Flex Pack//Web

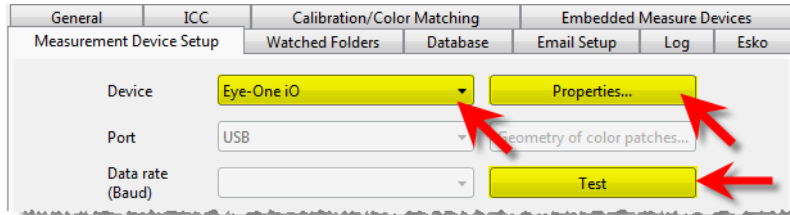
Select START | ALL PROGRAMS | CGS | ORIS FLEX PACK WEB or click on the shortcut to this program created on the desktop.

Fig. 5-1 ORIS Flex Pack//Web Main Window



Setting up Measurement Device

1. Connect the measurement device to your computer.
2. Install the driver provided for this device.
3. In ORIS Flex Pack/Web, select FILE > PREFERENCES > MEASUREMENT DEVICE SETUP.
4. Select, configure and test the measurement device.



Creating an RFP File

A reference printer profile (*.rfp file) characterizes the colorimetric properties of a particular printer model used with a specific combination of ink, paper type, resolution and printing method (e.g. SCREENDOT).

You need an RFP file to be able to quickly recalibrate your printer when colors have drifted. Without an RFP file you would have to repeat the color-matching process, which can be extremely time-consuming.

RFP files for packaging proofing are not included in the software package. Create such files using the *Reference Printer Profile Wizard*.

The following example explains how to create an RFP file for the following conditions:

- Roland printer with XG INKS (CMYK+orange+green)
- Glossy or semimatte paper
- Printing continuous tone data

The procedure is partly different when printing halftone data (SCREENDOT or SCREENDOT PLUS method) or using film substrates.

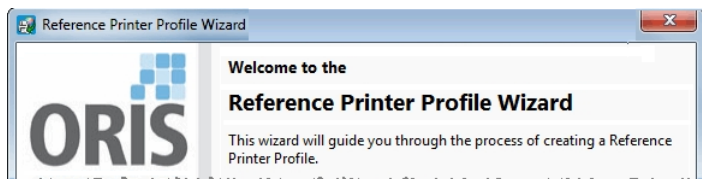
The X-Rite i1 iO table is used for measuring in this example.

» RELATED TOPICS:

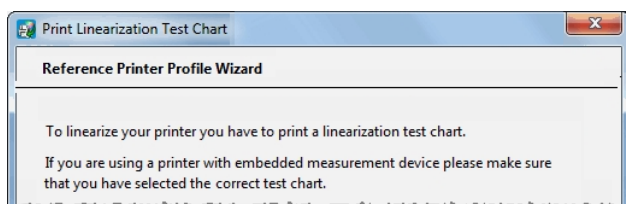
- CREATE RFP FILES FOR HALFTONE PROOFING (PAGE 7-2)
- CREATING REFERENCE PRINTER PROFILES (PAGE 23-1)
- PRINTER CALIBRATION (PAGE 14-1)
- ONE PRINTER, ONE TARGET (PAGE 14-6)

Print 6-color Linearization Test Chart

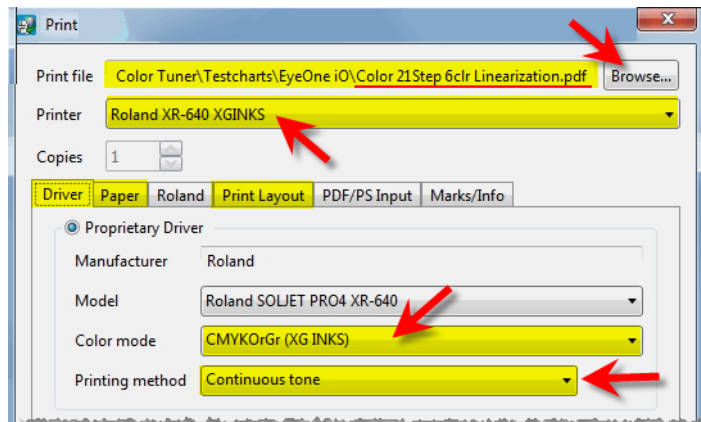
1. Select UTILITIES | REFERENCE PRINTER PROFILE | CREATE BY WIZARD.



2. Click NEXT.

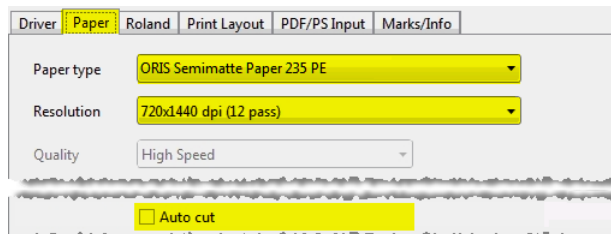


3. Click NEXT to open the PRINT dialog. Make the following settings:
 - Click BROWSE and select a 6-color linearization test chart.
For i1 iO, select Color 21Step 6clr Linearization.pdf in the installation directory ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\.
 - Select your Roland printer model.
 - Set the COLOR MODE to CMYKORGr (XG INKS).
 - Set the PRINTING METHOD to CONTINUOUS TONE.



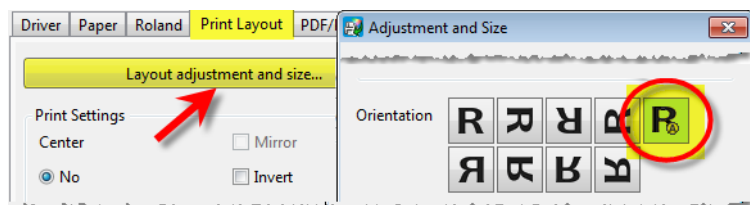
4. On the PAPER tab:

- Select the PAPER TYPE (glossy or semimatte paper).
- Set the RESOLUTION to the highest value.
- Disable the AUTO CUT option.



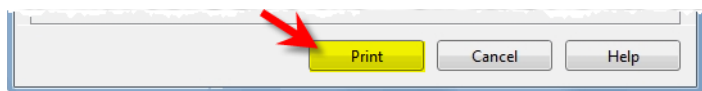
5. On PRINT LAYOUT tab:

Click LAYOUT ADJUSTMENT AND SIZE and then **P_A**. Now jobs will be rotated automatically to make optimum use of the print medium. Leave all other options at their default values (i.e. switched off or No).



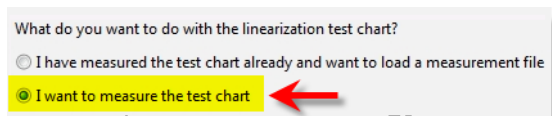
6. Do not modify the default settings on the other dialog tabs. Click the HELP button if you need more information on particular options.

- Click the PRINT button to output the linearization test chart.

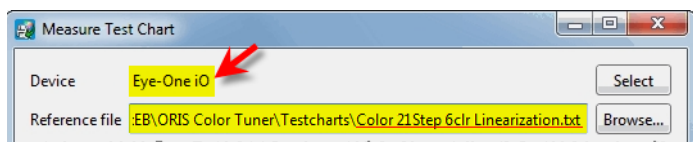


Measure Linearization Test Chart

- Select I WANT TO MEASURE THE TEST CHART and click NEXT.

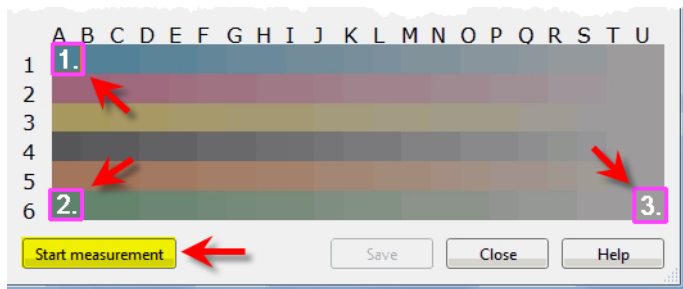


- Make sure your measurement device is selected. Also make sure the reference file for your test chart is selected. This is the file `Color 21Step 6clr Linearization.txt` in the `Testcharts` directory.



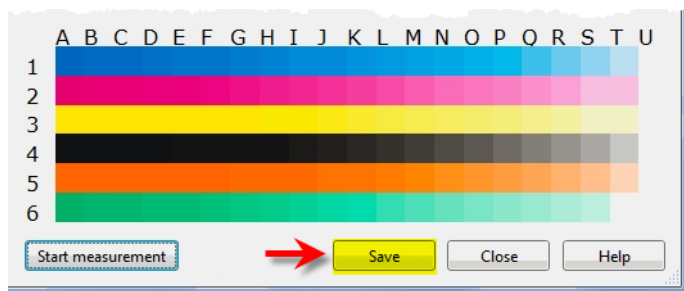
- Click START MEASUREMENT. The measurement device calibrates itself.
- Place the test chart on the i1 iO table and click OK.
- Move the visor of the i1 to the three patches indicated on the screen and press the i1 button each time.

The test chart will be measured strip by strip.



- When the measurement has completed, create a new folder in a place of your choice (e.g. on the Desktop). Click SAVE and save the density measurement file (*.txt) to this folder.

Note: Save all measurement files that will be created with this wizard to this folder. Keep these files for future reference. If you have problems with your RFP file, CGS may need to analyze these measurement files.

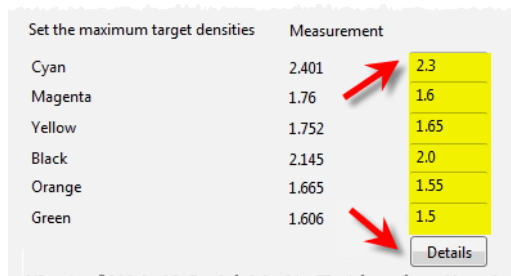


Reduce Maximum Density (6 Channels)

1. The density values measured for the 100% values of the 6 color channel are displayed.

Reduce the maximum densities by entering values which are slightly lower. Thus you compensate for possible density variations across different printers and fluctuations that are likely to occur over time.

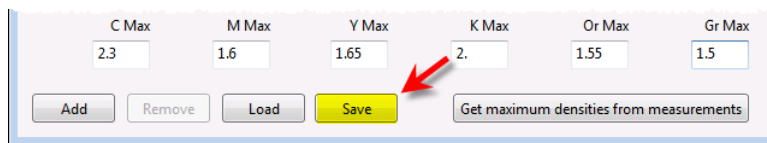
We recommend a reduction of about 0.1 units. Another approach is entering the density values that are achieved for tonal values of 95%.



2. Click the DETAILS button.

A table displays the density values measured for all 21 tonal values and the new target values that were calculated based on your input.

Click SAVE and save these density values to the folder you have created previously. This creates a *.den file.



Linearization dialog box showing maximum densities for various color channels. A red arrow points to the 'Save' button.

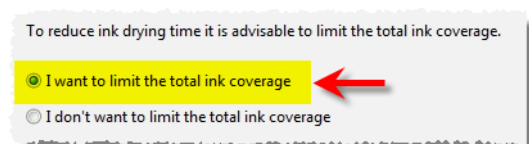
C Max	M Max	Y Max	K Max	Or Max	Gr Max
2.3	1.6	1.65	2.	1.55	1.5

Buttons: Add, Remove, Load, **Save**, Get maximum densities from measurements

3. Click **OK** to close the dialog.
4. This completes the linearization process. Click **NEXT**.

Reduce Total Ink Coverage

1. Select **I WANT TO LIMIT THE TOTAL INK COVERAGE** and click **NEXT**.



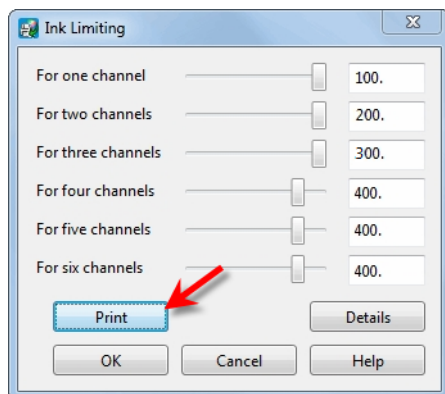
Total Ink Coverage dialog box. A red arrow points to the 'I want to limit the total ink coverage' radio button.

To reduce ink drying time it is advisable to limit the total ink coverage.

☒ I want to limit the total ink coverage

☐ I don't want to limit the total ink coverage

2. Click **PRINT** to output the ink limiting test chart.
3. Allow the paper to dry for about 5 minutes.
4. Examine the test chart and look for color patches that are still wet.
5. Enter the tonal values of the dry patches located next to a wet patch.
6. Reprint the test chart and examine the result.
7. Repeat this process until the color patches are no longer wet.
8. Click **OK** when finished.



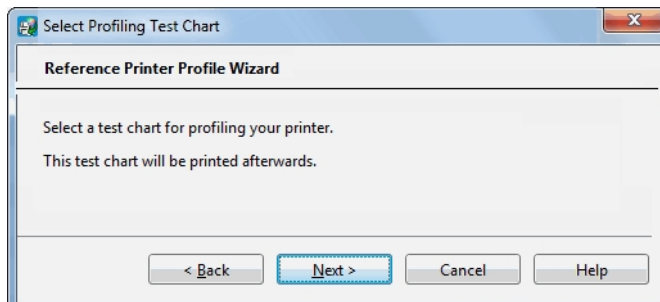
Ink Limiting dialog box. A red arrow points to the 'Print' button.

For one channel	100.
For two channels	200.
For three channels	300.
For four channels	400.
For five channels	400.
For six channels	400.

Buttons: **Print**, Details, OK, Cancel, Help

Print Profiling Test Chart

1. Click NEXT.



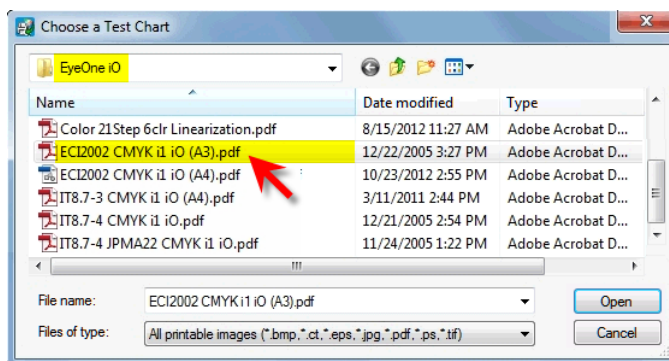
2. Select a profiling test chart for your measurement device.

For i1 iO, select ECI2002 CMYK i1 iO (A3).pdf in the installation folder ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\EyeOne iO\\.

The test chart is printed automatically.

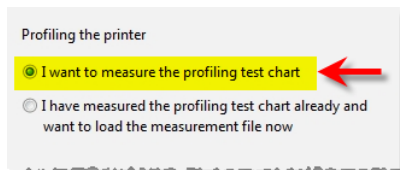
Note:

Remember that currently 6-channel color management is supported for linearization, ink limiting and spot color correction only. Profiling is still restricted to 4 color channels.



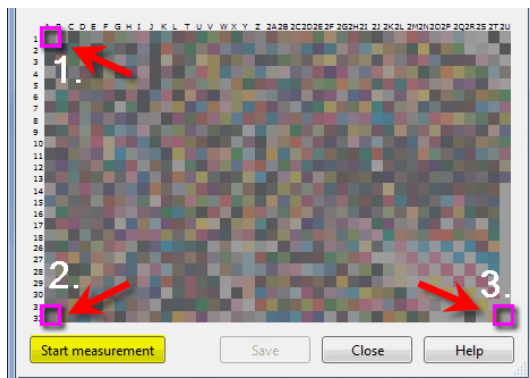
Measure Profiling Test Chart

1. Select I WANT TO MEASURE THE PROFILING TEST CHART and click NEXT.



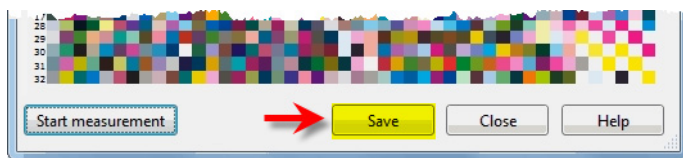
2. Click START MEASUREMENT. The measurement device calibrates itself.
3. Place the test chart on the i1 iO table and click OK.
4. Move the visor of the i1 to the three patches indicated on the screen and press the i1 button each time.

The test chart will be measured strip by strip.



5. Click SAVE when the measurement has completed.

Save the file with the spectral data measurements (*.txt) to the folder created previously. This completes the profiling process.



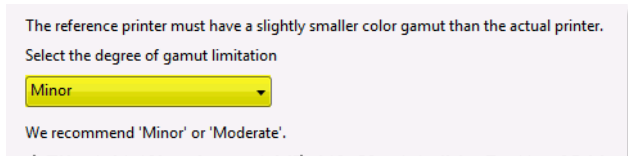
Note:

The profiling process is not iterative. One measurement is sufficient. The RFP file only characterizes the way the printer reproduces color.

Limit Color Gamut

A reference printer must have a slightly reduced color gamut compared to the actual printer. This ensures that there are no out-of-gamut colors when calibrating a printer to the reference printer.

Select MINOR or MODERATE, then click NEXT.

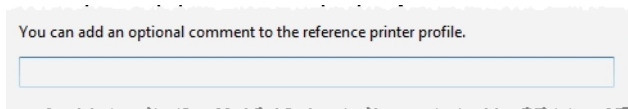


The reference printer must have a slightly smaller color gamut than the actual printer.
Select the degree of gamut limitation
Minor
We recommend 'Minor' or 'Moderate'.

Enter Comment

Enter a comment or leave the input box empty. Then click NEXT.

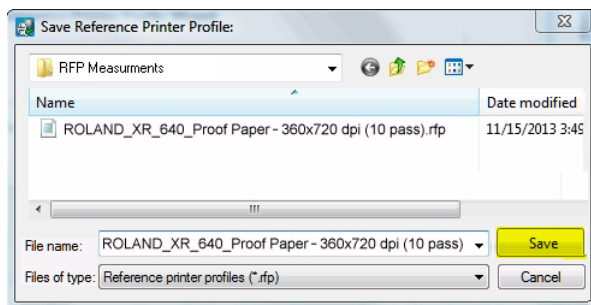
When creating a print queue, this comment will be visible in the selection dialog for RFP files along with the information about the printer settings.



You can add an optional comment to the reference printer profile.

Save RFP File

1. Save the RFP file to the folder you have created previously.



Save Reference Printer Profile:

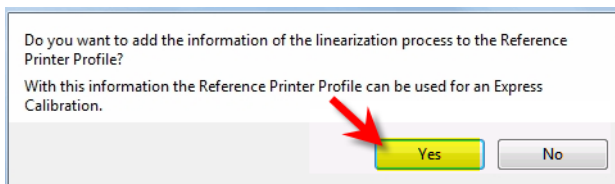
RFP Measurements

Name	Date modified
ROLAND_XR_640_Proof Paper - 360x720 dpi (10 pass).rfp	11/15/2013 3:45

File name: ROLAND_XR_640_Proof Paper - 360x720 dpi (10 pass) Save

Files of type: Reference printer profiles (*.rfp) Cancel

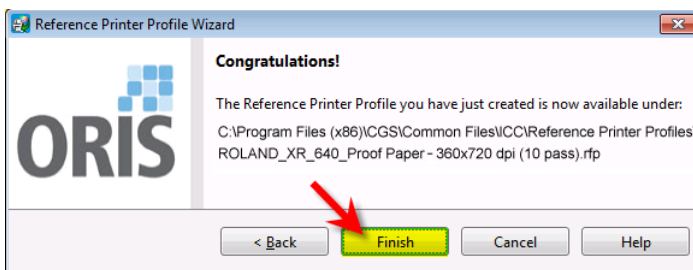
2. Select YES to embed the linearization data into the RFP file.



3. Save a duplicate of this file to the folder that holds all the RFP files included in the ORIS Flex Pack/Web software.

This is the folder ...\\Program Files\\CGS\\Common Files\\ICC\\Reference Printer Profiles\\.

4. Click FINISH to complete the wizard.



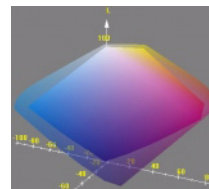
Checking Color Gamut of RFP File

Before using the new reference printer profile, you should check whether the color gamut is large enough to simulate the target printing process. If the color gamut is too small, you should recreate the RFP file.

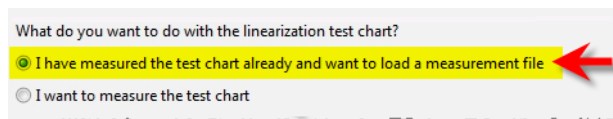
1. Select UTILITIES | GAMUT VIEWER.
2. Click ADD, select GAMUT OF A MEASUREMENT and load the RFP file.
3. Click ADD, select GAMUT OF AN ICC PROFILE and load the target ICC profile which characterizes the printing process.
4. Compare the two color gamuts.

The reference printer's color gamut must be larger than that of the printing process, i.e. there must be no out-of-gamut colors.

In addition, there must be a certain space between the borders of the two color gamuts, but this space must not be too large.



5. If the color gamut is too small, create the RFP file again.
Proceed in the same way as before (see page 5-2), with the exception of the steps described below.
6. Having printed the linearization test chart, select I HAVE MEASURED THE TEST CHART ALREADY... and click NEXT.



7. Select the density measurement file (*.txt) you have saved.
8. Enter maximum densities which are slightly higher than those used before. Make sure the values are still lower than the measurements.

Set the maximum target densities	Measurement	
Cyan	2.401	2.35
Magenta	1.76	1.65
Yellow	1.752	1.7
Black	2.145	2.1
Orange	1.665	1.6
Green	1.606	1.55

Details

Creating an Output Queue

An output queue is a holding area for jobs waiting to be printed. Every output queue is linked to a watched folder. Jobs added to a watched folder are printed automatically according to the setup of the output queue.

The following example explains how to create a queue for 6-channel color-matched output on your Roland printer with accurate spot color simulation. The output queue is based on the RFP file created previously and can only be used for the printer model and printing conditions characterized by this RFP file.

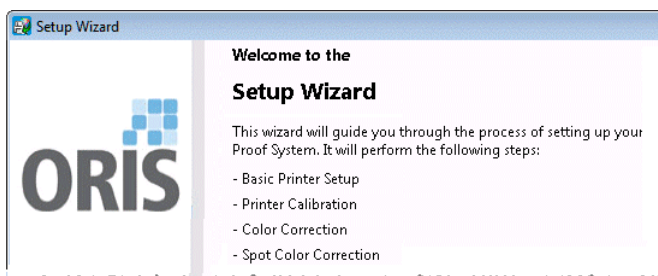
This RFP file is for printing continuous tone data on paper substrates. The procedure is partly different when printing halftone data (SCREEN-DOT or SCREENDOT PLUS method) or using film substrates.

Use the *Setup Wizard* to create output queues. Always click NEXT to proceed to the next step.

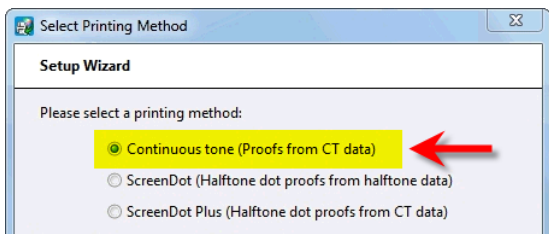
- » RELATED TOPICS:
- CREATE OUTPUT QUEUE FOR HALFTONE PROOFING (PAGE 7-5)
 - OUTPUT QUEUE (PAGE 1-12)
 - SETTING UP CONTRACT PROOFERS (PAGE 13-1)
 - PROCESSING AND PRINTING JOBS (PAGE 15-1)

Basic Printer Setup

1. Click  or select FILE > ADD PRINTER to start the Setup Wizard.

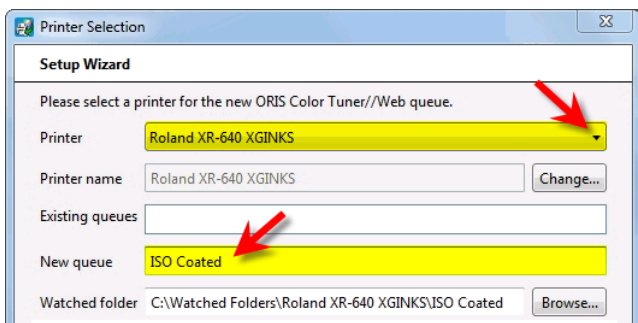


2. Select CONTINUOUS TONE.

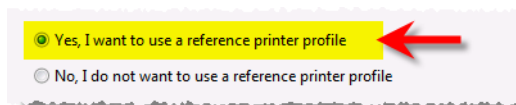


3. Select your Roland printer and enter a name for the new output queue.

A watched folder is created automatically, its path name is indicated under the name of the output queue.

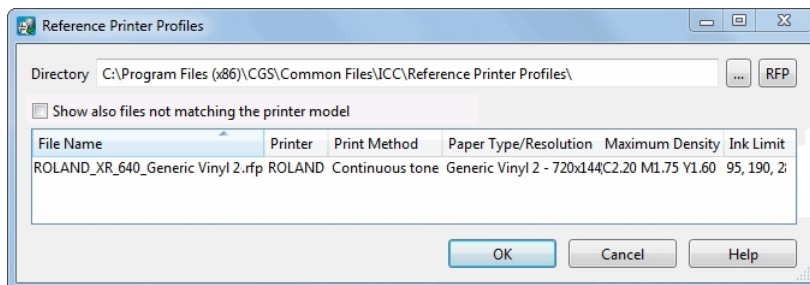


4. Select YES, I WANT TO USE A REFERENCE PRINTER PROFILE.



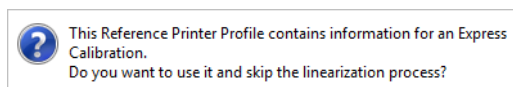
5. Select the RFP file you have created previously.

If you have saved the RFP file to the recommended location, it will be listed automatically. The default folder for RFP files is ...\\Program Files\\CGS\\Common Files\\ICC\\Reference Printer Profiles\\.

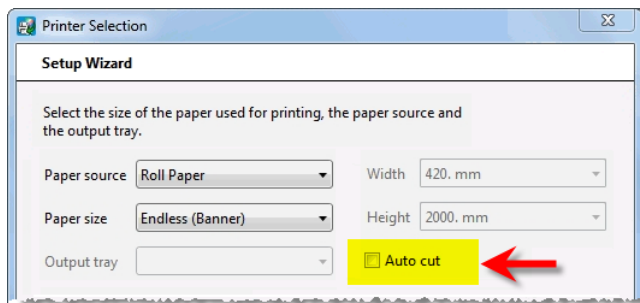


6. Decide whether to apply the linearization data you have embedded into the RFP file (express calibration).

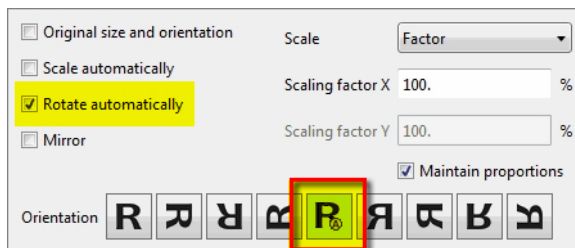
- Select YES if you are creating this output queue for the (physically) same printer on which the RFP was created. In this case the embedded linearization can be used for the output queue.
- Select No if you are creating this output queue for a different printer. In this case the linearization process should be repeated.



7. Disable the AUTO CUT option.



8. Enable ROTATE AUTOMATICALLY or click .

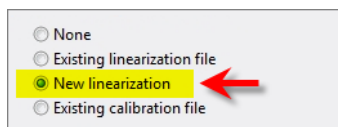


9. Click NEXT three times.

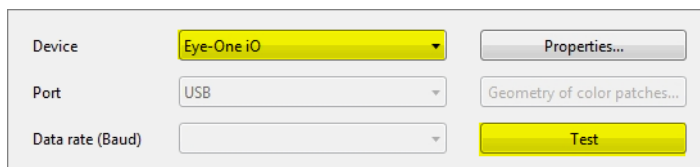
6-channel Linearization

The following steps are *not* performed if you have applied the linearization data embedded in the RFP file (express calibration). In this case you are automatically taken to the calibration process (see page 5-17).

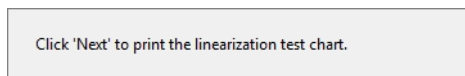
1. Select NEW LINEARIZATION.



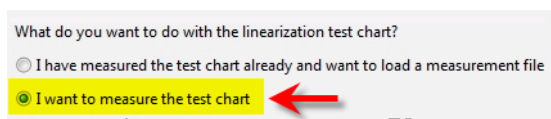
2. Make sure your measurement device is selected. Test whether it is capable of communicating with the program.



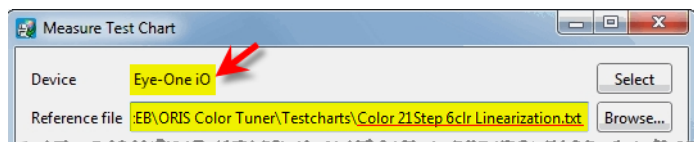
3. The 6-color linearization test chart (with patches for orange and green) will be printed automatically when you click NEXT.



4. Select I WANT TO MEASURE THE TEST CHART.

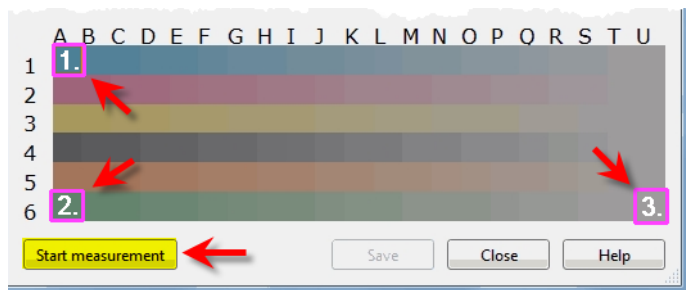


5. Make sure your measurement device is selected. Also make sure the reference file for your test chart is selected. This is the file Color 21Step 6clr Linearization.txt in the Testcharts directory.



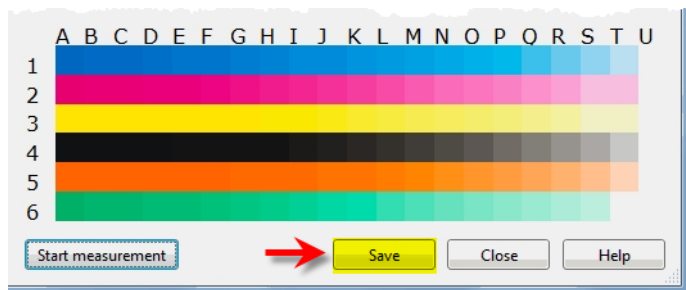
6. Click START MEASUREMENT. The measurement device calibrates itself.
7. Place the test chart on the i1 iO table and click OK.
8. Move the visor of the i1 to the three patches indicated on the screen and press the i1 button each time.

The test chart will be measured strip by strip.



9. Click SAVE when the measurement has completed.

Save the density measurement file to ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\Measurement\\.



10. The maximum target densities are automatically reduced to the values defined in the RFP file.

Examine the density values indicated for each color channel. If a measurement value is lower than the value defined in the RFP file, then there may be something wrong with your printer.

In this case you should cancel the Setup Wizard and readjust your printer hardware. Refer to page 4-1 for more details.

Otherwise leave the default values and click NEXT.

Set the maximum target densities	(1) RFP	(2) Measurement	(3)
Cyan	2.2	2.401	2.2
Magenta	1.75	1.76	1.75
Yellow	1.6	1.752	1.6
Black	2.1	2.145	2.1
Orange	1.7	1.665	1.7
Green	1.55	1.606	1.55

Use Use Details

Defaults for reduced maximum densities (3) are taken from RFP file (1).
Make sure measurements (2) are higher than RFP values (1).

4-channel Iterative Calibration

Note:

Remember that currently 6-channel color management is supported for linearization, ink limiting and spot color correction only. Calibrating and color matching is still restricted to 4 color channels.

1. Click NEXT. The ECI2002 test chart starts to print automatically. The linearization data (created previously or stored in the RFP file) is applied.

Click 'Next' to print the calibration test chart.

2. Select I WANT TO MEASURE THE TEST CHART.

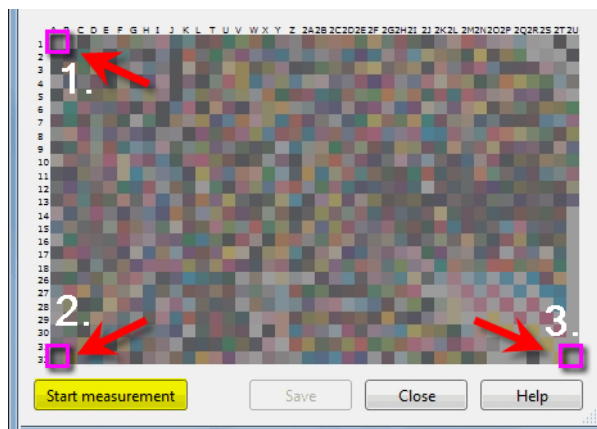
What do you want to do with the calibration test chart?

☐ I have measured the test chart already and want to load a measurement file

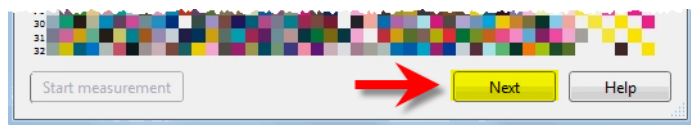
☒ I want to measure the test chart

3. Click START MEASUREMENT. The measurement device calibrates itself.
4. Place the test chart on the i1 iO table and click **OK**.
5. Move the visor of the i1 to the three patches indicated on the screen and press the i1 button each time.

The test chart will be measured strip by strip.



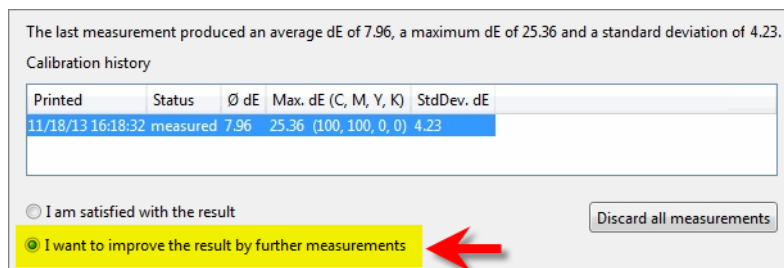
6. Click NEXT when the measurement has completed.



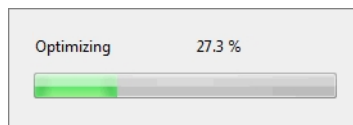
Note:

The file with the spectral data measurements (*.txt) is saved automatically to the folder ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\Measurement\\.

7. Examine the measurement results. The color deviations are likely to be large in this first step of the iterative calibration process. Make sure I WANT TO IMPROVE THE RESULT... is selected, then click NEXT.



8. Wait until the program has optimized the calibration file (*.cal).



9. Repeat the steps taken before:

Print the test chart (now with the optimized CAL file), measure the colors, examine the color deviations and optimize the calibration file.

10. Repeat this process several times. Usually more iterations are required compared to printing with the CONTINUOUS TONE method.

Enable I AM SATISFIED... when the color deviations are low enough. This option is enabled automatically when dE < 0.8 and max. dE < 5. Then click NEXT to complete the calibration process.

The calibration file (*.cal) is saved automatically under ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\PCF\\.

The last measurement produced an average dE of 0.63, a maximum dE of 4.01 and a standard deviation of 0.61.

Calibration history

Printed	Status	dE	Max. dE (C, M, Y, K)	StdDev. dE
11/18/13 16:18:32	calculated	7.96	25.36 (100, 100, 0, 0)	4.23
11/18/13 16:22:44	calculated	1.39	6.78 (100, 70, 100, 80)	0.94
11/18/13 16:56:34	measured	0.63	4.01 (100, 70, 100, 80)	0.61

☒ I am satisfied with the result
 ☐ I want to improve the result by further measurements

4-channel Iterative Color Matching

Note:

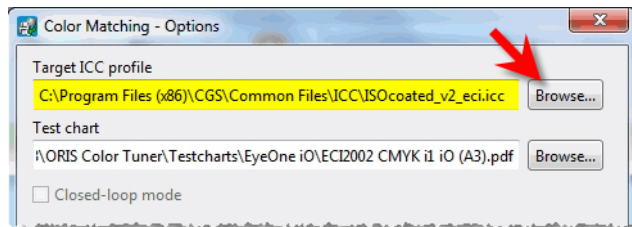
Remember that currently 6-channel color management is supported for linearization, ink limiting and spot color correction only. Calibrating and color matching is still restricted to 4 color channels.

1. Click on NEW COLOR TABLE VIA AUTOM. COLOR MATCHING.

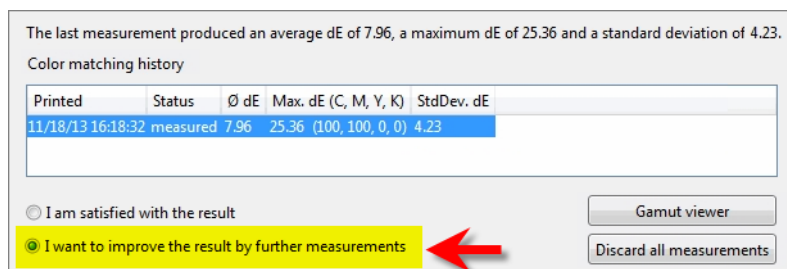
This starts the Color Matching Wizard.

☐ None
☐ ICC
☒ ORIS_DAT color table

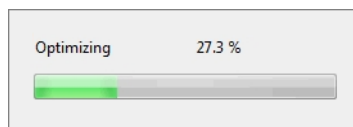
2. Select a standard ICC profile or a measurement file that characterizes the printing conditions to be matched. Then click CONTINUE.



3. The program displays the color deviations that exist between the selected target ICC profile and the last calibration measurement. The color deviations are likely to be large. Make sure I WANT TO IMPROVE THE RESULT... is selected, then click NEXT.

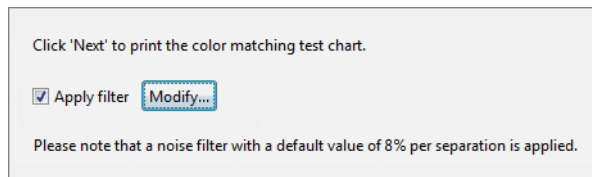


4. Wait until the color matching table (*.dat) has been optimized.

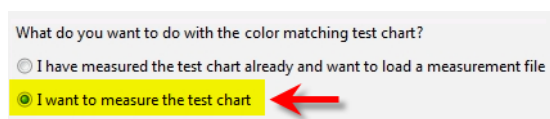


5. Click NEXT.

The test chart will be printed using the optimized color table. The linearization and calibration data created previously will also be applied.

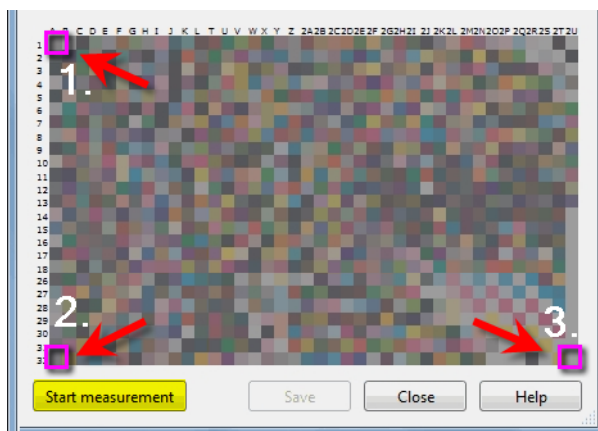


6. Select I WANT TO MEASURE THE TEST CHART.

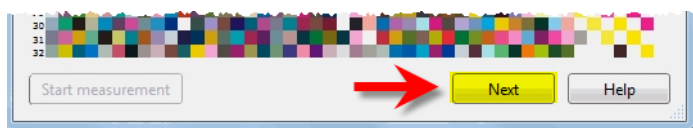


7. Click START MEASUREMENT. The measurement device calibrates itself.
8. Place the test chart on the i1 iO table and click **OK**.
9. Move the visor of the i1 to the three patches indicated on the screen and press the i1 button each time.

The test chart will be measured strip by strip.



10. Click NEXT when the measurement has completed.



Note: The file with the spectral data measurements (*.txt) is saved automatically to the folder ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\Measurement\\.

11. Repeat the steps taken before:
Examine the color deviations, optimize the color table, print the test chart (now using the optimized DAT file) and measure it.
12. Repeat this process several times.

Enable I AM SATISFIED... when the color deviations are low enough. This option is enabled automatically when $dE < 1.0$ and max. $dE < 10$.

Note: When matching colors to offset printing standards such as ISO Coated, these values are usually attained after a few iterations. However, with gravure and flexographic printing standards, which have larger color spaces, you usually have to accept higher color deviations.

Then click FINISH to complete the color matching process.

The last measurement produced an average dE of 0.84, a maximum dE of 8.71 and a standard deviation of 0.61.

Color matching history

Printed	Status	dE	Max. dE (C, M, Y, K)	StdDev. dE
11/18/13 16:18:32	calculated	7.96	25.36 (100, 100, 0, 0)	4.23
11/18/13 16:22:44	calculated	2.69	10.78 (100, 70, 100, 80)	2.24
11/18/13 16:56:34	measured	0.84	8.71 (100, 70, 100, 80)	0.61

☒ I am satisfied with the result
 ☐ I want to improve the result by further measurements

13. The Color Matching Wizard closes. The path name of the new color matching table (*.dat) appears in the dialog. Click NEXT.

Note:

The color table (*.dat) is saved automatically to the folder ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\CMF\\.

☐ None
☐ ICC
☒ ORIS_DAT color table

6-channel Spot Color Correction

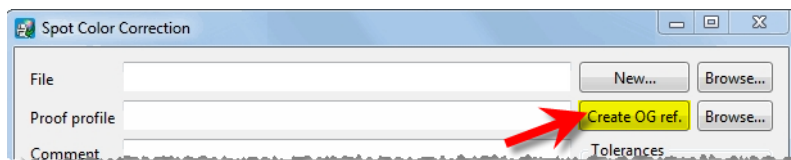
Spot colors can be simulated very precisely on your Roland printer if XG INKS with orange and green are used. To create a spot color correction table (SCG file) for an CMYKOrGr ink set, you need a 6-channel ICC profile for your printer. The program can create this profile automatically from the measurements of a 6-channel profiling test chart.

1. Select TABLE and click NEW.

☐ None
☒ Table

☒ Use calibration with spot color correction

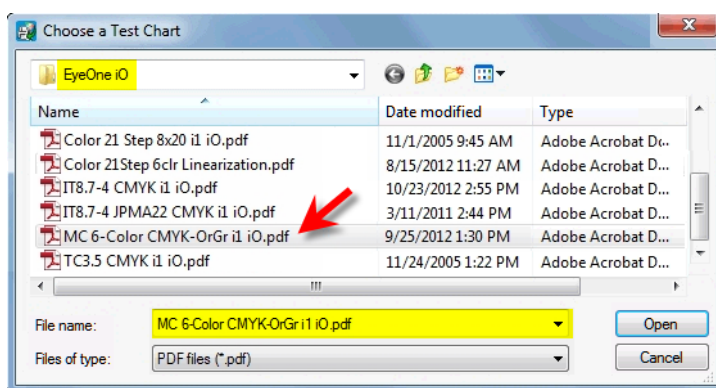
2. Click the CREATE OG REF. button.



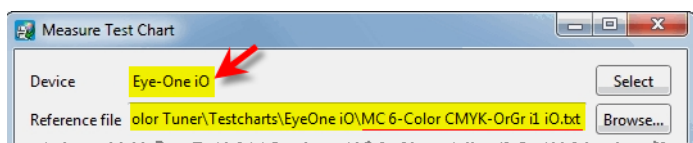
3. Select a 6-channel profiling test chart.

For i1 iO, select MC 6-Color CMYK-OrGr i1 iO.pdf in the installation folder ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\EyeOne iO\\.

The test chart is printed automatically.



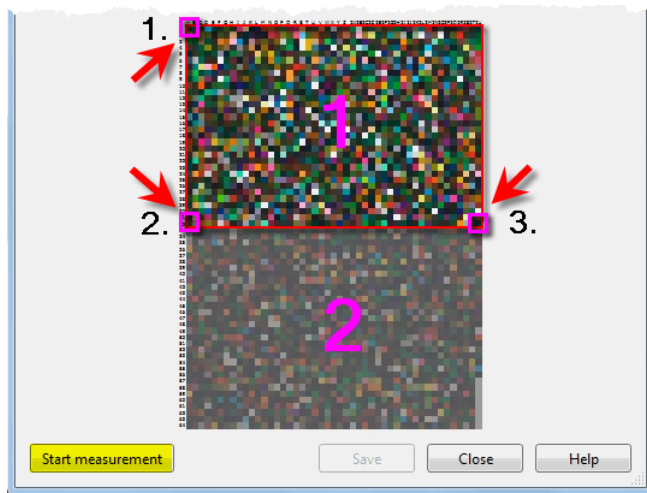
4. Make sure your measurement device is selected. Also make sure the reference file for your test chart is selected. This is the file MC 6-Color CMYK-OrGr i1 iO.txt in the Testcharts\\EyeOne iO\\ directory.



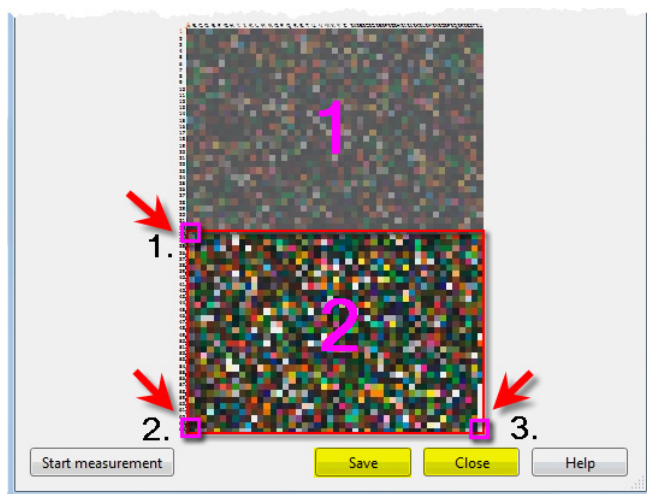
5. Click START MEASUREMENT. The measurement device calibrates itself.
6. Place the first page of the test chart on the i1 iO table and click OK.
7. Move the visor of the i1 to the three patches indicated on the screen and press the i1 button each time. The first page will be measured.

Note:

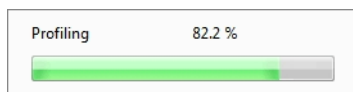
The two test chart pages are displayed side by side and rotated by 90° to the left. Take this into account when looking for the three patches that are indicated on the screen.



8. When the measurement has completed, place the second page on the i1 iO table and measure it in the same way.

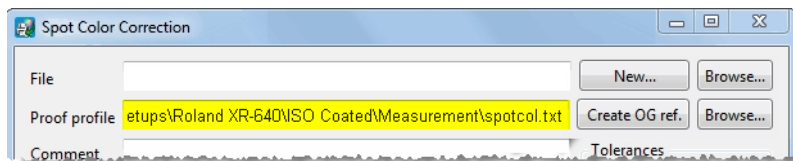


9. When the measurement has completed, click SAVE. Save the file with the spectral data measurements to ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\Measurement\\.
10. Click CLOSE. The 6-channel ICC profile is calculated automatically. This may take some time to complete.



Note: The dialog displays the name of the measurement file, although the 6-channel ICC profile will be used for the spot color simulation.

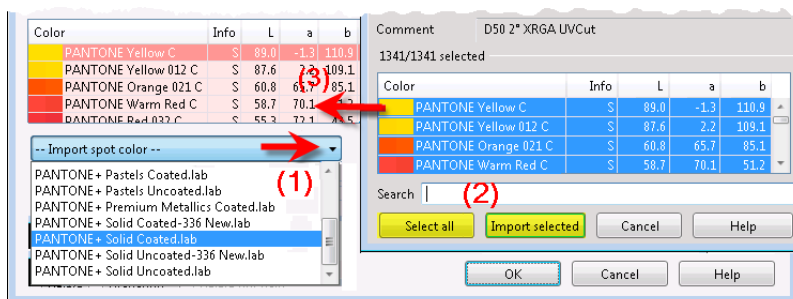
Note: If this measurement file is used for another output queue, the 6-channel ICC profile will be loaded automatically. The program will not calculate the profile again.



11. Import the spot colors.

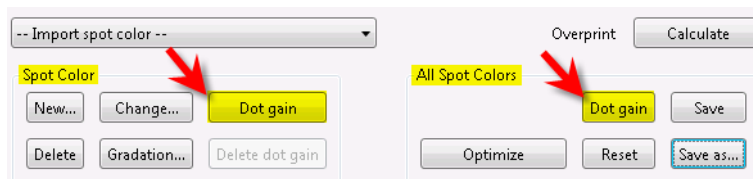
To import all colors of a library, for example, click -- IMPORT SPOT COLOR --, select the library, click SELECT ALL and then IMPORT SELECTED.

The colors are added to the list. The program automatically calculates the optimum CMYK or Gr device colors from the spot colors' Lab values and the 6-channel ICC profile.

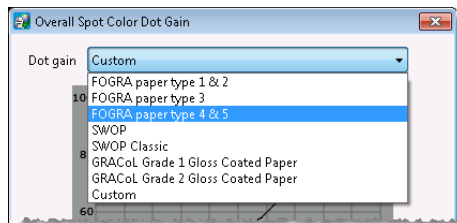


12. The linearization process adds dot gain curves that simulate the average dot gain achieved in offset printing. To improve the color simulation, you may want to modify the dot gain applied to spot colors.

To define overall dot gain, click the DOT GAIN button under ALL SPOT COLORS. To define dot gain differently for a single color, use the DOT GAIN button under SPOT COLOR. This overrides the overall settings.



13. Select a printing standard or create your own dot gain curve. Then click OK to close the dialog.



14. Click **SAVE AS** to save the settings to a spot color correction file (*.scgx). Use the default folder ...\Program Files\CGS\Common Files\CTuner Setups\<printer>\<queue>\Spotcolor\.

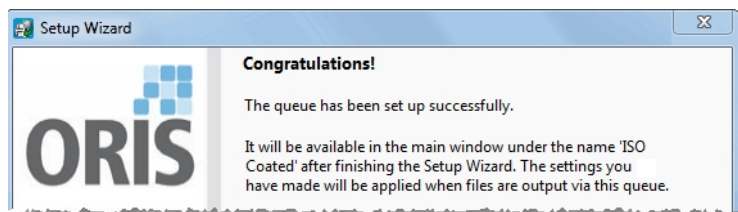
15. Click **OK** to close the dialog. You are back in the Setup Wizard.

16. Click **NEXT**.

The dialog displays the path name of the new output queue.

17. Click **FINISH** to complete the Setup Wizard.

The output queue is ready for use.



Queue Setup Files

The following diagrams show the various types of queue setup files and how they will be used for color matching print jobs with XG INKS.

Fig. 5-2 *Process Color Matching with CMYKOrGr Ink*

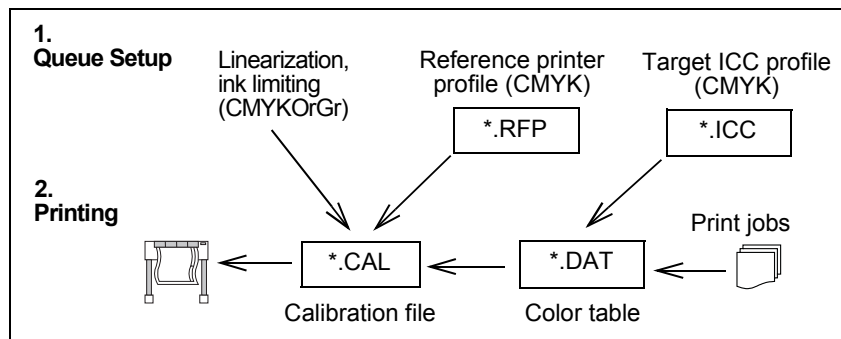
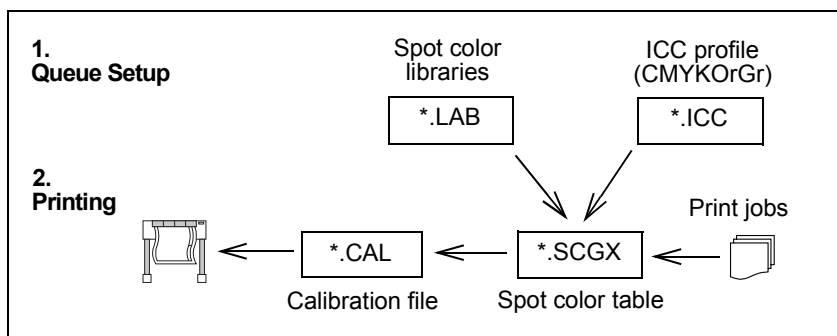


Fig. 5-3 Spot Color Matching with CMYKOrGr Ink





6 Daily Ink Preparation Procedure

Ink pigments tend to settle in the cartridges and ink flow system owing to their weight, especially when the printer has been idle for some time. This may cause variations in ink density.

It is therefore essential to prepare your printer's ink system for optimum performance every day before starting print production. This ensures accurate and repeatable color reproduction throughout the entire print run.



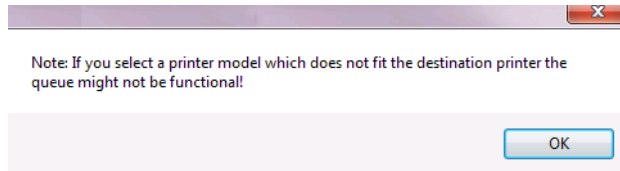
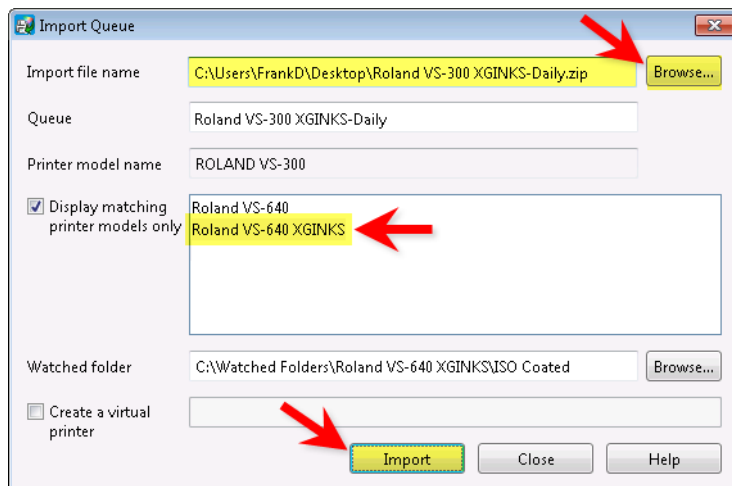
For Roland VS and VS_i printers used with XG INKS we therefore recommend to thoroughly shake all ink cartridges and then print a special file with large areas of solid colors. This file and a suitable output queue can be downloaded from our web site. The details are explained below.

Perform Once

1. Open our website *www.cgs-oris.com* and select PRODUCTS > ORIS FLEX PACK//WEB from the drop-down menu.
2. Scroll down the page and download the following files:
 - All Colors.pdf
 - Roland VS-300i XGINKS-Daily.zip
For VersaCAMM VS 300i, 540i, 640i and similar models
 - Roland VS-300 XGINKS-Daily.zip
For VersaCAMM VS 300, 420, 540, 640 and similar models
3. In ORIS Flex Pack//Web, select UTILITIES > IMPORT QUEUE.
4. In the IMPORT QUEUE dialog, selected the downloaded ZIP file.
5. You can modify the name of the print queue if you want to.
6. Select your Roland printer from the list.

Note: The queue was created for a VS 300(i) printer. It is no problem if you are using a different printer model. The program tells you that you have chosen a non-matching printer (see figure below). However, you can safely ignore this message.

7. Click IMPORT. A new print queue will be created.



Perform Daily

Do the following every morning before starting print production on your Roland VS or VSi printer:

1. Remove all ink cartridges and shake each of them thoroughly.
2. Print one copy of the job All Colors.pdf using the imported queue. We recommend to use ORIS Glossy Paper 235 PE (30" x 45 m).

7 Halftone Proofing

Proofing Methods

ORIS Flex Pack//Web supports two halftone proofing methods (see also page 18-1):

SCREENDOT

This means proofing halftone jobs, usually the screened output files from a RIP. This is supported for TIFF and LEN format. A license for the SCREENDOT method is included in the ORIS Flex Pack//Web license.

SCREENDOT PLUS

This means creating halftone proofs from continuous tone data. The files are screened automatically with a user-defined dot proofing resolution.

The SCREENDOT PLUS method requires an additional software license.

Create Screened Test Charts

The printing method SCREENDOT requires the use of screened 1-bit test charts. Create them from the files in the installation directory ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\.

The following test charts need to be screened if X-Rite i1 iO is used:

- Color 21Step 6clr Linearization.pdf
- Ink Limit Chart 6clr.pdf
- ECI2002 CMYK i1 iO (A3).pdf *)
- MC 6-Color CMYK-OrGr i1 iO.pdf *)

*) These files reside in the ...\\Testcharts\\EyeOne iO\\ subfolder.

Screen these files with the same RIP settings that are used for the jobs. These settings include resolution, screen ruling, screen angle and dot shape.

Do not scale, mirror or rotate the screened files. They must have the same size and geometry as the original halftone files.

If proof certification is performed, screened color bars are additionally required. Create them from the files in the installation directory ...\\Program Files\\CGS\\Common Files\\Extras\\Proofing Bars\\.

The SCREENDOT PLUS method does not require any special test charts or color bars. Use the CT files provided in the installation directory. The program ensures automatically that the proof data and color bar are screened with the same settings.

Create RFP Files for Halftone Proofing

Create special reference printer profiles (RFP files) for the SCREENDOT and SCREENDOT PLUS printing method. When creating RFP files for the SCREENDOT method, use screened linearization and profiling test charts (see above).

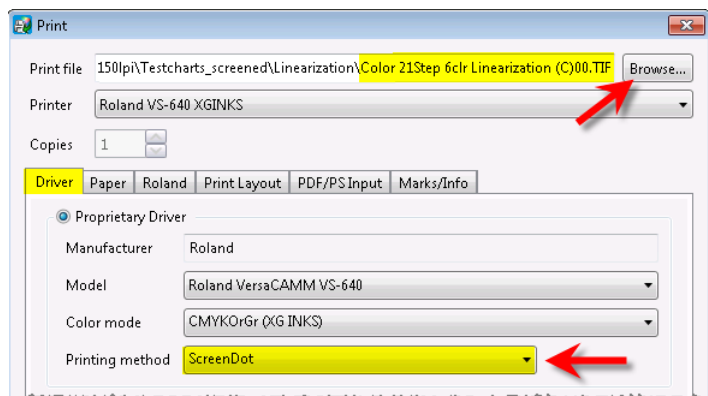
Follow the procedure described for continuous tone printing (see page 5-2), but carefully note the differences explained below.

Printing Linearization Test Chart

DRIVER Tab

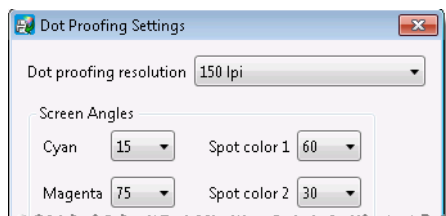
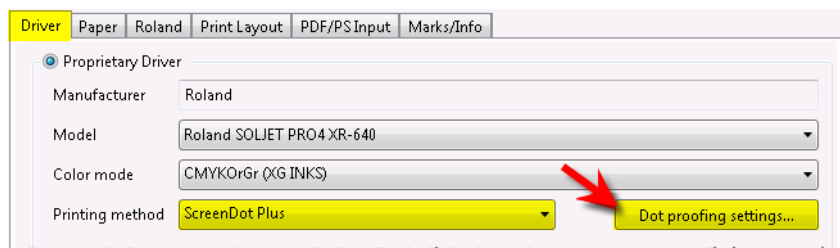
Select the printing method to be used: SCREENDOT or SCREENDOT PLUS.

For the SCREENDOT method, use a screened 1-bit linearization test chart. In the dialog, select any of the separation files, for example Color 21Step 6clr Linearization (C) 00.TIF. The other separations will be loaded automatically.



If the SCREENDOT PLUS method is used, click the DOT PROOFING SETTINGS button and specify the screen ruling and the screen angles.

The screen angle specified for BLACK is also applied to the white separation. The dot shape is automatically set to round Euclidean.



PAPER Tab

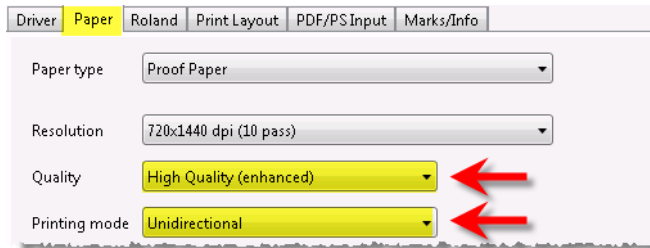
For maximum quality, we recommend to use the highest RESOLUTION possible and to set the PRINTING MODE to UNIDIRECTIONAL.

We recommend to set the QUALITY option as follows:

- HIGH QUALITY (ENHANCED) for screen rulings < 112 lpi (44 lpcm)
- HIGH QUALITY (BEST) for screen rulings > 112 lpi

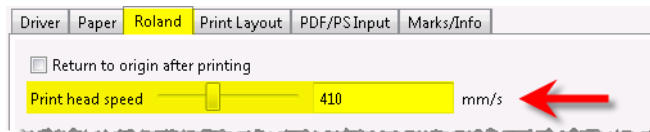
Setting the QUALITY level too low is likely to result in moiré. Setting the QUALITY level too high unnecessarily increases the number of print–measure–calculate iterations required during calibration and color matching.

Do not use the HIGH QUALITY setting. It is likely to produce poor results.



ROLAND Tab

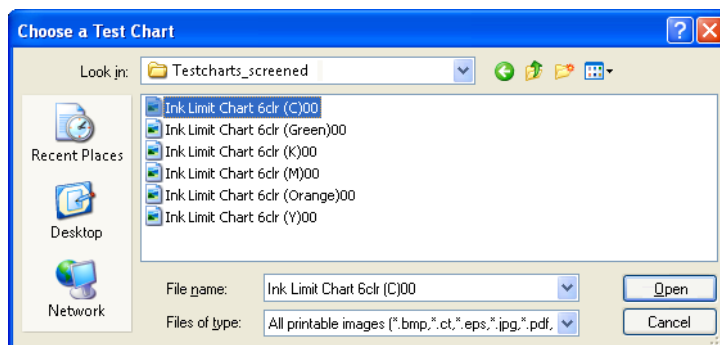
We recommend to set the PRINT HEAD SPEED to half the maximum speed. This is usually the default setting. If higher speed is desired, increase this value and check if print quality is still satisfactory.



Printing Ink Limit Test Chart

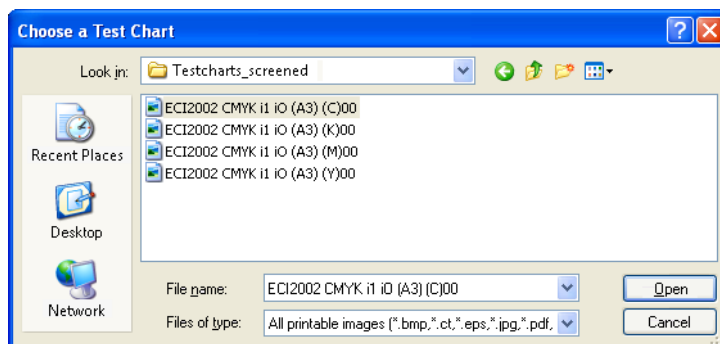
For the SCREENDOT printing method, use a screened 1-bit ink limit test chart. In the dialog, select any of the separation files, for example Ink Limit Chart 6clr (C)00.TIF. The other separations will be loaded automatically.

See also *Create Screened Test Charts* (page 7-1).



Printing Profiling Test Chart

For the SCREENDOT printing method, use a screened 1-bit profiling test chart. In the dialog, select any of the separation files, for example ECI2002 CMYK i1 i0 (A3) (C)00.TIF. The other separations will be loaded automatically.



Create Output Queue for Halftone Proofing

Follow the procedure described for continuous tone printing (see page 5-12), but carefully note the differences explained below.

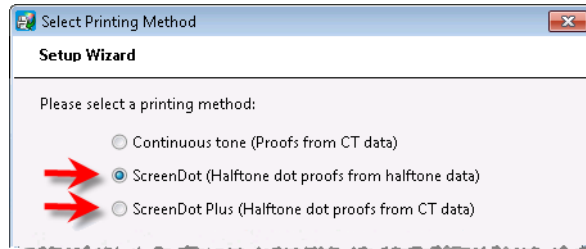
Contone Setup Files: Don't Use Them!

When setting up SCREENDOT and SCREENDOT PLUS output queues, do not select any setup files created for continuous tone output queues. The output queues would not provide correct results.

This applies to queue setup files of any type, including linearization (*.lin), calibration (*.cal), color matching (*.dat) and spot color correction (*.scgx) files.

Printing Method

Select the SCREENDOT or SCREENDOT PLUS printing method, depending on the type of input data (see page 7-1).



Printing Test Charts

Use screened 1-bit test charts for the SCREENDOT method (see page 7-1). Select any of the separation files. The other separations will be loaded automatically.

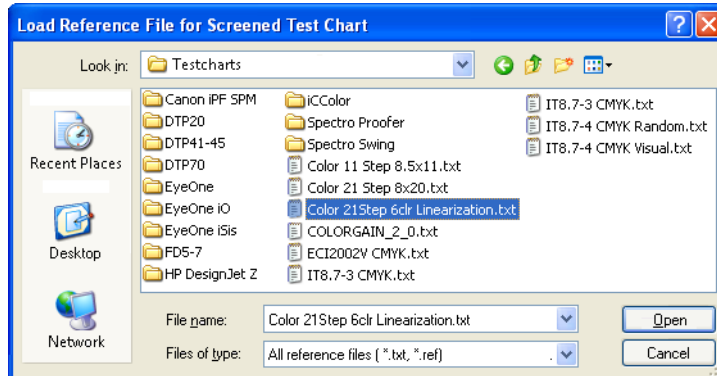
Having selected a test chart, you are requested to select the *reference file*. Reference files define the test chart geometry and the patch colors. Test charts can only be measured if the correct reference file is selected.

For X-Rite i1 iO, use the reference files in the installation folder ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\ and ...\\Testcharts\\EyeOne iO\\. More details are provided below.

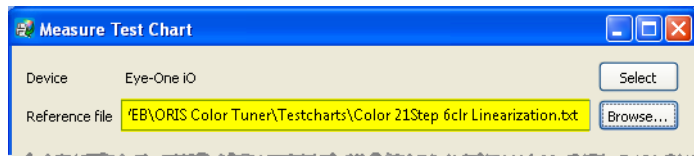
Linearization

Select the following files:

- Screened test chart:
Color 21Step 6clr Linearization (C)00.TIF (example)
- Reference file:
Color 21Step 6clr Linearization.txt in the ...\\Testcharts\\ folder of the program's installation directory.



Make sure the same reference file is selected when starting to measure the linearization test chart.



Calibration and Color Matching

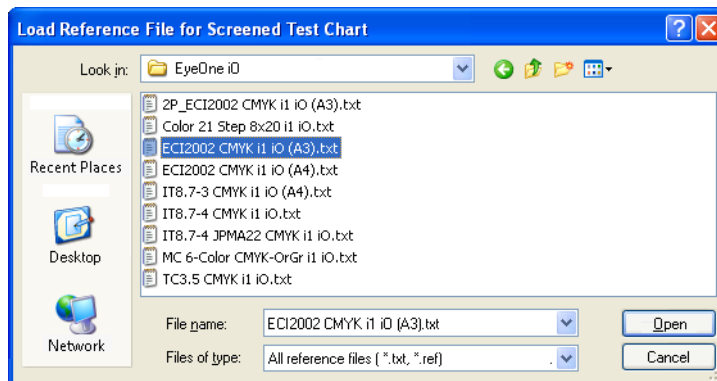
Select the following files:

- Screened test chart:

ECI2002 CMYK i1 iO (A3) (C) 00.TIF (example)

- Reference file:

ECI2002 CMYK i1 iO (A3).txt in the ... \Testcharts\EyeOne iO\ folder of the program's installation directory.



Note: Halftone proofing usually requires more print–measure–calculate iterations compared to the CONTINUOUS TONE proofing method.

Spot Color Correction

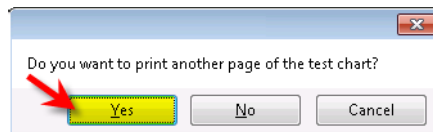
Select the following files when creating a 6-channel ICC profile for spot color matching using the CREATE OG REF. button (see page 5-22):

- Screened test chart

There is a set of 6 files for every page, one file for each color separation. To start printing the test chart, select one of the separation files that belong to the first page. Usually these files have the number **00** in the file name:

MC 6-Color CMYK-OrGr i1 iO (C)00.TIF (example)

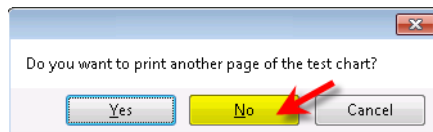
When the first page has finished printing, you are requested to select the next page:



Click YES and select one of the separation files that belong to the second page. Usually these files have the number **01** in the file name:

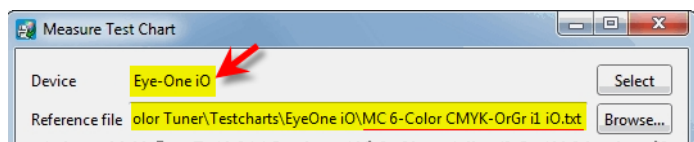
MC 6-Color CMYK-OrGr i1 iO (C)01.TIF (example)

The query dialog reappears when the second page has finished printing. This has been the last page, so select NO.



- Reference file:

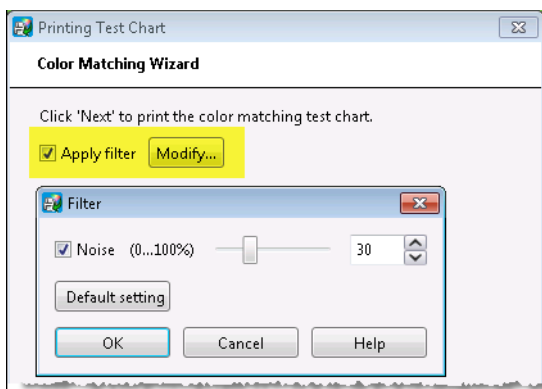
MC 6-Color CMYK-OrGr i1 iO.txt in the ...\\Testcharts\\EyeOne iO\\ folder of the program's installation directory. This file is usually loaded automatically.



Iterative Color Matching: Adding Noise

Inkjet printers feature a smooth, photo-realistic print quality which is often superior to that of the printing process. By adding noise to your printout you can simulate certain imperfections of the printing process, such as missing dots or grainy appearance.

This feature is supported for the SCREENDOT and SCREENDOT PLUS method if Roland DG printers are used. For other printers it is only available with the CONTINUOUS TONE printing method.



File Naming Conventions for Print Jobs

The SCREENDOT printing method requires the use of certain file naming conventions. The individual separation files can only be combined into a print job if the files are named accordingly. ORIS Flex Pack//Web supports various file name patterns of commonly used RIP programs.

Note: The letters `Jobname` in the file name patterns listed below stand for the actual job name. Job names must consist of at least two characters. The spot color names are only examples.

Harlequin RIP

A

— Page 1 —

- Jobname**C**00.tif
- Jobname**M**00.tif
- Jobname**Y**00.tif
- Jobname**K**00.tif
- Jobname**PANTONE 230 C**00.tif

— Page 2 —

- Jobname**C**01.tif
- Jobname**M**01.tif
- Jobname**Y**01.tif
- Jobname**K**01.tif
- Jobname**PANTONE 230 C**01.tif

Alternative names for process colors are supported (see page 7-12).

B

— Page 1 —

- Jobname **(C)** 00.tif
- Jobname **(M)** 00.tif
- Jobname **(Y)** 00.tif
- Jobname **(K)** 00.tif
- Jobname **(PANTONE 230 C)** 00.tif

— Page 2 —

- Jobname **(C)** 01.tif
- Jobname **(M)** 01.tif
- Jobname **(Y)** 01.tif
- Jobname **(K)** 01.tif
- Jobname **(PANTONE 230 C)** 01.tif

Alternative names for process colors are supported (see page 7-12).

C

— Page 1 —

- TIF**F**00.tif
- TIF**F**01.tif
- TIF**F**02.tif
- TIF**F**03.tif

— Page 2 —

- TIF**F**04.tif
- TIF**F**05.tif
- TIF**F**06.tif
- TIF**F**07.tif

The characters **TIF**F**** are literals which stand for themselves. This file naming convention does not support spot color separations.

D

— Page 1 —

- xxxxxx00.tif
- xxxxxx01.tif
- xxxxxx02.tif
- xxxxxx03.tif

— Page 2 —

- xxxxxx04.tif
- xxxxxx05.tif
- xxxxxx06.tif
- xxxxxx07.tif

The letters xxxxxx stand for job names consisting of any characters, but no more than 6. This file naming convention does not support spot colors.

Trueflow RIP

A

— Page 1 —

- Jobname00.**C**
- Jobname00.**M**
- Jobname00.**Y**
- Jobname00.**K**
- Jobname00.**PANTONE 230 C**

— Page 2 —

- Jobname01.**C**
- Jobname01.**M**
- Jobname01.**Y**
- Jobname01.**K**
- Jobname01.**PANTONE 230 C**

Alternative names for process colors are supported (see below).

B

- Jobname_**C**.tif
- Jobname_**M**.tif
- Jobname_**Y**.tif
- Jobname_**K**.tif
- Jobname_**PANTONE 230 C**.tif

C

- Jobname_**Cyan**.tif
- Jobname_**Magenta**.tif
- Jobname_**Yellow**.tif
- Jobname_**Black**.tif
- Jobname_**PANTONE 230 C**.tif

Esko FlexRIP

A

- Jobname_**C**.len
- Jobname_**M**.len
- Jobname_**Y**.len
- Jobname_**K**.len
- Jobname_**204**.len

B

- Jobname_**Cyan**.len
- Jobname_**Magenta**.len
- Jobname_**Yellow**.len
- Jobname_**Black**.len
- Jobname_**204**.len

Prinergy RIP

- Jobname.**C**.tif
- Jobname.**M**.tif
- Jobname.**Y**.tif
- Jobname.**K**.tif
- Jobname.**PANTONE 230 C**.tif

Alternative names for process colors are supported (see below).

StudioRIP

- Jobname **C**.tif
- Jobname **M**.tif
- Jobname **Y**.tif
- Jobname **K**.tif
- Jobname **PANTONE 230 C**.tif

Alternative names for process colors are supported (see below).

ORIS File Name Pattern

— Page 1 —

- Separation-**Cyan**-00.tif
- Separation-**Magenta**-00.tif
- Separation-**Yellow**-00.tif
- Separation-**Black**-00.tif
- Separation-**PANTONE 230 C**-00.tif

— Page 2 —

- Separation-**Cyan**-01.tif
- Separation-**Magenta**-01.tif
- Separation-**Yellow**-01.tif
- Separation-**Black**-01.tif
- Separation-**PANTONE 230 C**-01.tif

The characters *Separation* are literals which stand for themselves. The page number characters *-00* are not necessary for single-page jobs.

If this file naming convention is used, there must not be any other files in the directory. Otherwise the separation files cannot be combined.

Alternative Process Color Names

Many file name patterns support alternatives of the process color name in addition to C, M, Y, K. There are various abbreviations and localized forms which are listed below. These names are *not* case sensitive.

C	M	Y	K
C	M	Y	B
Cyn	Mag	Yel	Blk
Cya	Mag	Yel	Key
Cyan	Magenta	Giallo	Nero
Cyan	Magenta	Gelb	Schwarz
Cyan	Magenta	Yellow	Black

Various Notes

Print Jobs Cannot Be Scaled

It is not possible to modify print jobs in output size. This feature is not supported for the SCREENDOT and SCREENDOT PLUS printing method.

Number of Color Channels

A maximum of 16 color channels is supported for the SCREENDOT and SCREENDOT PLUS method (4 process colors, 12 spot colors).

Printing via Drop Area

Make sure to upload all separation files *in one go*. Separation files that are uploaded separately will not be combined into a job.

Printing via Watched Folders

The separation files will be combined into a job as soon as the waiting time has elapsed. This is the time during which the file contents has to remain unchanged. When the waiting time has elapsed, the separation files will be combined into a job, even if some of the files are missing.

Mapping Unknown Spot Color Names

If a print job contains unknown spot color names which are not defined in the spot color correction file (SCG), you can map these names to other spot colors. This can be done easily using the *Print Job Editor*.

Refer to page 18-8 for more details.

Fine Tuning a Color Match

When proofing halftone data, the effect of the following modifications is usually not as strong as you may expect:

- Global color corrections (gradation changes, *.grd or *.pgr files)
- Selective color value corrections (fine tuning *.cc color tables)

For more details refer to page 24-1 and 25-1.

8 Printing on Clear Film Using White and Metallic Silver Ink

In this example we will create a packaging proof for a potato chips bag on a Roland DG printer equipped with XG INKS. The spot color METAL should be printed with metallic silver ink and SPOT WHITE with white ink.



Two methods of handling such spot colors will be explained:

- Assign the spot colors directly to the printer's metallic silver or white ink channel. To do so, enter the color name into a list (*.osc file).
- Define ink percentage values for the spot colors. You can mix them with other inks. To create a metallic gold effect, for example, mix metallic silver with yellow and magenta. This method requires that you enter the spot color names into the *.scgx file.

It is assumed that you have calibrated and color-matched your Roland printer already. We will only explain the specific output queue settings required for this example. Note that you have to create a separate RFP file with a different setup (paper type, color mode and print sequence).

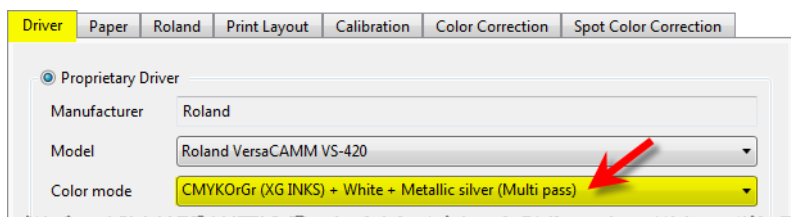
- » RELATED TOPICS:
- ADJUSTING PRINTER HARDWARE (PAGE 4-1)
 - SETTING UP FLEX PACK//WEB FOR PACKAGE PROOFING (PAGE 5-1)
 - HALFTONE PROOFING (PAGE 7-1)

Output Queue Setup

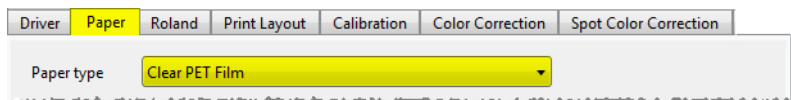
In this example, the spot colors will be assigned directly to the printer's white or metallic silver ink channel, respectively.

1. Select the output queue and click .

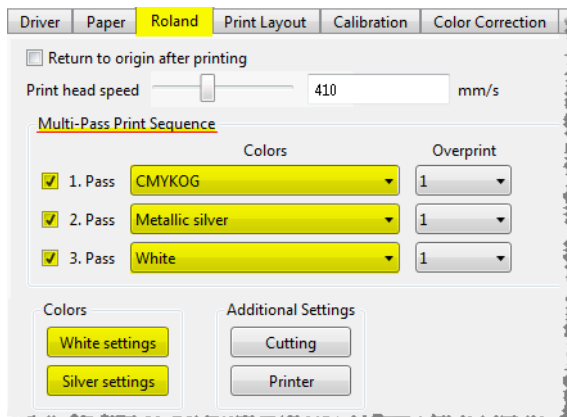
2. Set the COLOR MODE as shown in the image.



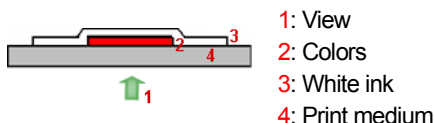
3. Set the PAPER TYPE to CLEAR PET FILM or ORIS CLEAR FILM 0075.



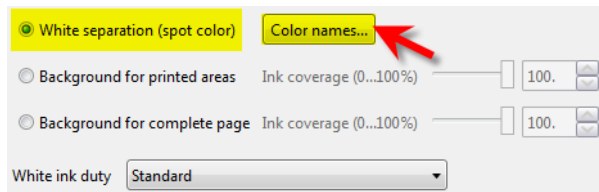
4. Set the sequence of print passes as shown in the image.



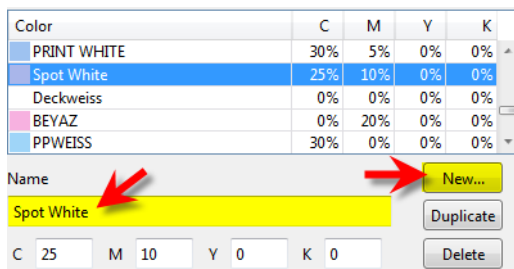
Proofs will be viewed from behind the printed surface, so white must be printed last and output needs to be mirrored.



5. Click WHITE SETTINGS, make sure WHITE SEPARATION (SPOT COLOR) is enabled, then click COLOR NAMES.



6. The color named SPOT WHITE should be printed with white ink. If this color is not listed, click NEW and type the color name into the box.



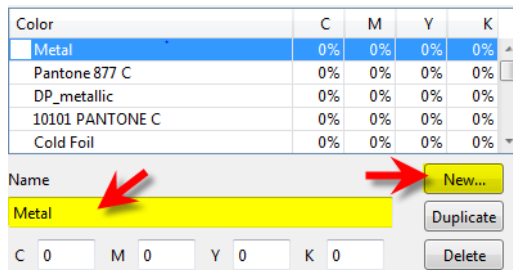
Note:

You can also define CMYK values. They are only used for representing the color in the job preview. Color names are case sensitive.

7. Close the two dialogs by clicking **OK**.
8. Back on the ROLAND tab, click the SILVER SETTINGS button.
9. Set the ink coverage of metallic silver to **-50%**. If ink coverage was not reduced, metallic silver would appear rather dull and grayish.

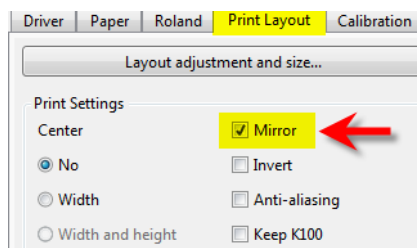


10. Click SILVER INK: COLOR NAMES.
11. The color named METAL should be printed with metallic silver ink. If this color is not listed, click NEW and type the color name into the box.



12. Close the two dialogs by clicking **OK**.

13. Enable the MIRROR option.

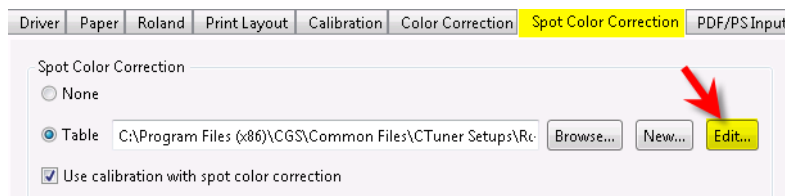


14. Click **OK** to close the dialog.

Creating a Metallic Gold Effect

In this example, the spot color METAL will be mixed with magenta and yellow ink to create a metallic gold effect.

1. Select the output queue and click .
2. Set the color mode, paper type, print pass sequence and MIRROR option as explained before (see above).
3. Select the SPOT COLOR CORRECTION tab and click EDIT.



4. Click **NEW**.

Color	Info	L	a	b	C	M	Y	K	Opacity	Level
PANTONE Yellow C	S	89.0	-1.3	110.9	0.0	0.0	100.0	0.0	0.0	1
PANTONE Yellow 012 C	S	87.6	2.2	109.1	0.0	0.0	100.0	0.0	0.0	1
PANTONE Orange 021 C	S	60.8	65.7	85.1	0.0	72.2	100.0	0.0	0.0	1
PANTONE Warm Red C	S	58.7	70.1	51.2	0.0	93.6	99.9	0.0	0.0	1

-- Import spot color --

Spot Color: **New...** Change... Dot gain

Delete Gradation... Delete dot gain

Overprint Calculate

All Spot Colors

Optimize iteratively Dot gain Save

Optimize Reset Save as...

5. Enter METAL into the COLOR NAME box.
6. Enter the ink percentage values into the DEVICE COLOR boxes.

To create a metallic gold effect, mix 100% metallic silver with magenta and yellow. The appropriate ink percentage values must be found out manually. It is not possible to measure metallic silver ink.

Manual Spot Color Input

Color name: **Metal**

Tonal values (%): 100

Opacity (%): 0. Print order: 1. color over CMYK

Lab Color

L: 50. a: 0. b: 0.

Original Device Color: 1.04 dE 49.06

C62 M55 Y55 K0 Or2 Gr1: 1.04 dE94 49.06

Tolerances

Strict Standard

0. 0.

Device Color

☒ C: 0. ☒ M: 20. ☒ Y: 80. ☒ K: 0. ☒ Or: 0. ☒ Gr: 0. ☒ Wh: 0. ☒ Mt: 100.

L91.3 a-1.5 b26.5

Note:

The ink coverage of metallic silver will be reduced according to the value selected for the SILVER INK DUTY option (see above). In our example, the 100% value will be reduced to 50%.

Silver ink: Color names...

Silver ink duty: ~50%

7. Click **OK** to close the dialog. The new color will be added to the list.

Color	Info	L	a	b	C	M	Y	K	Or	Gr	Wh	Mt	Opacity	Level
PANTONE 8960 C	S	51.2	13.2	43.7	35.6	49.6	77.9	0.0	0.0	0.0	0.0	0.0	0.0	1
PANTONE 8961 C	S	50.5	21.8	49.9	31.7	49.3	78.6	0.0	0.0	0.0	0.0	0.0	0.0	1
PANTONE 8962 C	S	52.5	22.1	61.1	23.0	35.5	91.2	0.0	0.0	0.0	0.0	0.0	0.0	1
Metal	S	50.0	0.0	0.0	0.0	20.0	80.0	0.0	0.0	0.0	0.0	100.0	0.0	1

8. Click **SAVE**, then click **OK** to close the dialog.

9

Printing and Cutting Vinyl Labels

In this example, self-adhesive vinyl labels will be printed on a Roland DG printer equipped with XG INKS and then contour-cut automatically using the integrated cutter. The labels can then be easily removed from the liner.



Our sample print job contains a spot color named CUTCONTOUR which defines the lines to be cut. There is also a spot color named METAL which should be printed with metallic silver ink.

The following is required to make the program use these spot colors in the way we want:

- When designing the page in your layout program, use vector data (often called *paths* or *strokes*) for the cut contour lines. Save the page to PDF, EPS or PostScript format.
- In ORIS Flex Pack//Web, enter the spot color names into special lists (*.osc files). See below for more details.

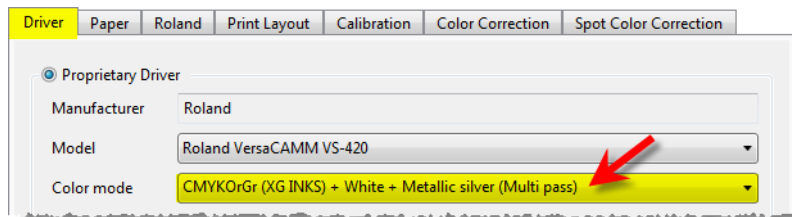
It is assumed that you have calibrated and color-matched your Roland printer already. We will only explain the specific output queue settings required for this example. Note that you have to create a separate RFP file with a different setup (paper type, color mode and print sequence).

Note: Contour cutting is not supported if the SCREENDOT printing method, the Adobe PDF Print Engine or the CENTER option are used.

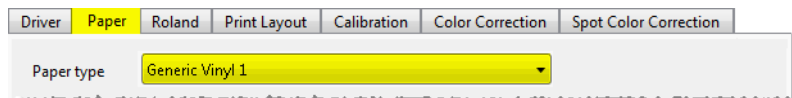
- » RELATED TOPICS:
- ADJUSTING PRINTER HARDWARE (PAGE 4-1)
 - SETTING UP FLEX PACK/WEB FOR PACKAGE PROOFING (PAGE 5-1)
 - HALFTONE PROOFING (PAGE 7-1)

Output Queue Setup

1. Make sure the printer's cutting tool is installed.
2. Select the output queue and click .
3. Set the COLOR MODE as shown in the image.



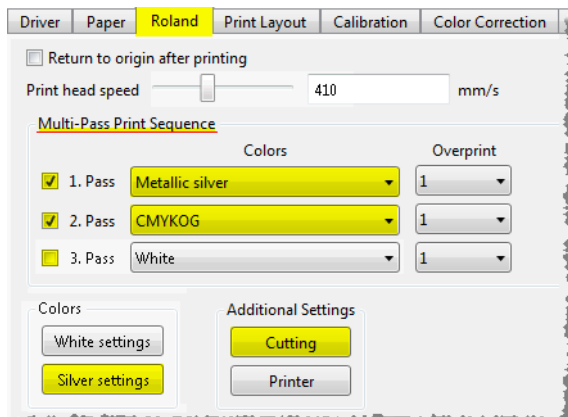
4. Set the PAPER TYPE to GENERIC VINYL 1 or GENERIC VINYL 2.



Note:

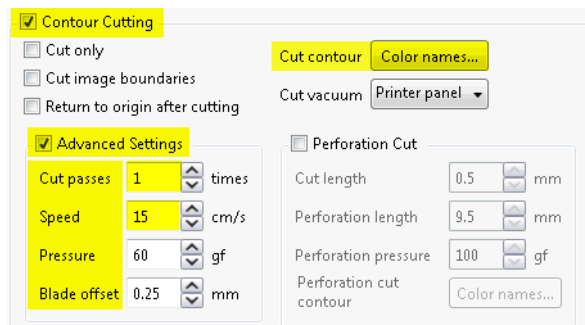
With the GENERIC VINYL 2 setting, the bands printed by the print head are narrower. This allows you to increase the number of print passes, which improves print quality (while reducing printing speed).

5. Set the sequence of print passes as shown in the image.
The print job does not contain a white ink channel. You can therefore disable the third print pass.

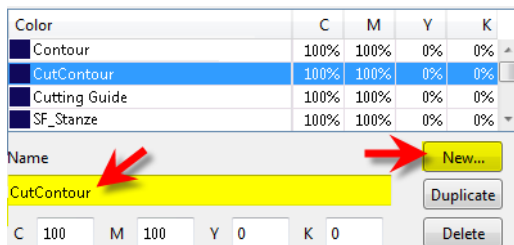


6. Click the CUTTING button.
7. Enable the CONTOUR CUTTING and ADVANCED SETTINGS options.
8. Set the number of cut passes to **1** and the cutting speed to **15** cm/s.

The cutter pressure depends on the condition of the cutter blade. Worn-out or blunt blades require a higher pressure. The blade offset is the distance between the tip and the center of the cutter blade.

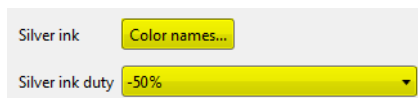


9. Click the CUT CONTOUR: COLOR NAMES button.
10. The color named CUTCONTOUR defines the outline of the labels. If this color is not listed, click NEW and type the color name into the box.



Note: You can also define CMYK values. They are only used for representing the color in the job preview. Color names are case sensitive.

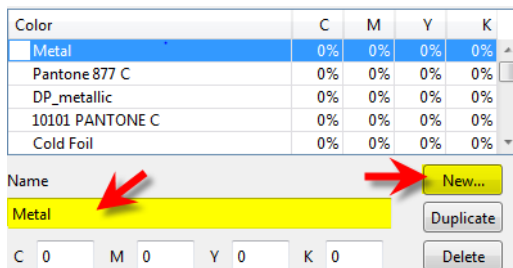
11. Close the two dialogs by clicking **OK**.
12. Back on the ROLAND tab, click the SILVER SETTINGS button.
13. Set the ink coverage of metallic silver to **-50%**. If ink coverage was not reduced, metallic silver would appear rather dull and grayish.



Silver ink: Color names...

Silver ink duty: -50%

14. Click the SILVER INK: COLOR NAMES button.
15. The color named METAL should be printed with metallic silver ink. If this color is not listed, click NEW and type the color name into the box.



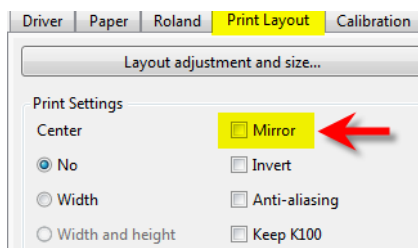
Color	C	M	Y	K
Metal	0%	0%	0%	0%
Pantone 877 C	0%	0%	0%	0%
DP_metallic	0%	0%	0%	0%
10101 PANTONE C	0%	0%	0%	0%
Cold Foil	0%	0%	0%	0%

Name: Metal

Buttons: New..., Duplicate, Delete

CMYK: C 0 M 0 Y 0 K 0

16. Close the two dialogs by clicking **OK**.
17. Proofs will *not* be viewed from behind the printed surface. Therefore make sure the MIRROR option is disabled.



Driver | Paper | Roland | **Print Layout** | Calibration

Layout adjustment and size...

Print Settings

Center: ☒ Mirror

☒ No ☐ Invert

☐ Width ☐ Anti-aliasing

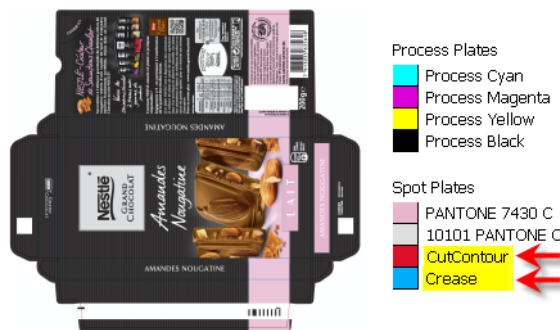
☐ Width and height ☐ Keep K100

18. Click **OK** to close the dialog.

10

Creasing, Printing and Cutting a Cardboard Box

In this example, we will produce a packaging proof on original cardboard stock using a Roland DG printer. It is a chocolate box which will be creased, printed and then cut out using the integrated cutter.



Our sample print job contains two special spot colors. CREASE defines the crease lines and CUTCONTOUR the cut lines. We will produce perforated cut lines to prevent the chocolate box from falling into the printer and getting damaged.

The following is required to make the program use these spot colors in the way we want:

- When designing the page in your layout program, use vector data (often called *paths* or *strokes*) for the crease and cut lines.
- Duplicate the page and make the following changes:

Job 1: Delete the cut contour.

Job 2: Delete all page elements except the cut contour.

Convert both pages to PDF, EPS or PostScript format.

- In ORIS Flex Pack//Web, add the spot color named CREASE to the list of cut contours and CUTCONTOUR to the list of perforation cut contours (both are *.osc files). See below for more details.

Process the two jobs in the following way:

1. Insert the printer's crease tool and process **Job 1** with the CUT ONLY and RETURN TO ORIGIN AFTER CUTTING options enabled. The cardboard will be creased. (It is important to crease the cardboard first, otherwise the crease tool would smear the wet ink.)
2. Reprocess **Job 1** with the CONTOUR CUTTING option disabled and RETURN TO ORIGIN AFTER PRINTING enabled. The ink will be laid down.
3. Insert the cutter tool and process **Job 2** with the CUT ONLY and PERFORATION CUT options enabled. The chocolate box will be perforated.

The details are explained below.

It is assumed that you have calibrated and color-matched your Roland printer already. We will only explain the specific output queue settings required for this example. Note that you have to create a separate RFP file with a different setup (paper type, color mode and print sequence).

Note: Contour cutting is not supported if the SCREENDOT printing method, the Adobe PDF Print Engine or the CENTER option are used.

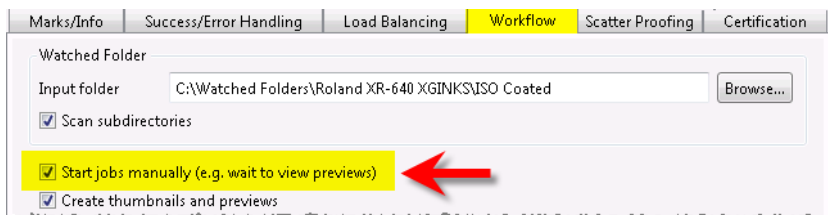
» RELATED TOPICS:

- ADJUSTING PRINTER HARDWARE (PAGE 4-1)
- SETTING UP FLEX PACK//WEB FOR PACKAGE PROOFING (PAGE 5-1)
- HALFTONE PROOFING (PAGE 7-1)

Output Queue Setup

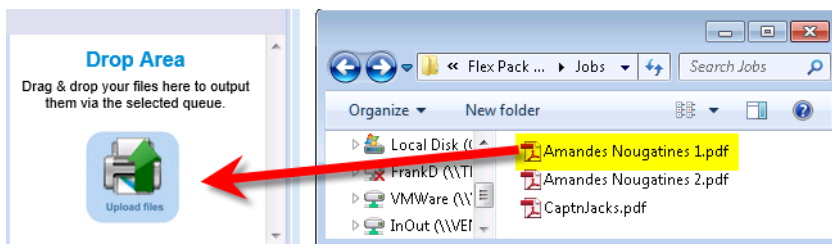
We will add a job to the print queue, change the job setup and then start the job manually. It is therefore important to configure the output queue such that new jobs are put on hold and not processed automatically.

1. Select the output queue and click .
2. Select the WORKFLOW tab.
3. Enable the START JOBS MANUALLY... option.
4. Click **OK** to close the dialog.

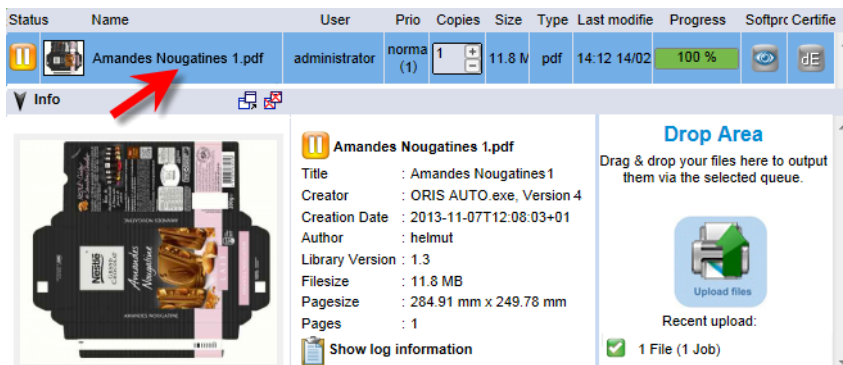


Creasing Job 1

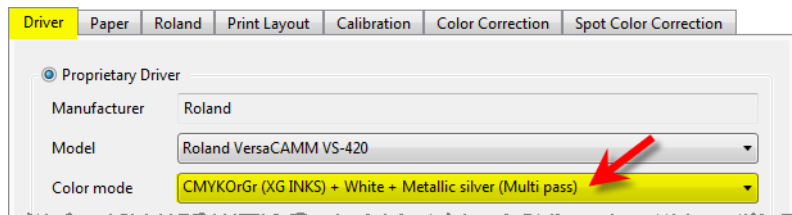
1. Insert the printer's crease tool.
2. Select the output queue, then drag **Job 1** onto the DROP AREA.
This is the job that contains all page elements except the cut contour.



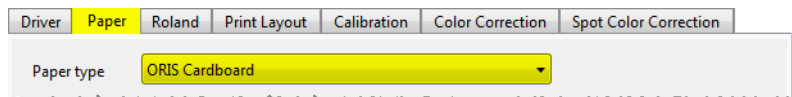
3. Select **Job 1** in the list, then click .



- Set the COLOR MODE as shown in the image.



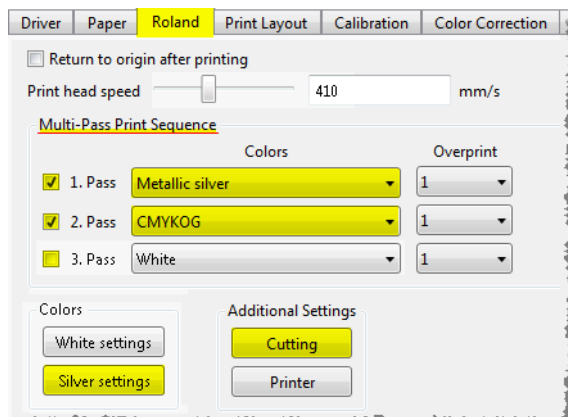
- Set the PAPER TYPE to ORIS CARDBOARD.



- Set the sequence of print passes as shown in the image.

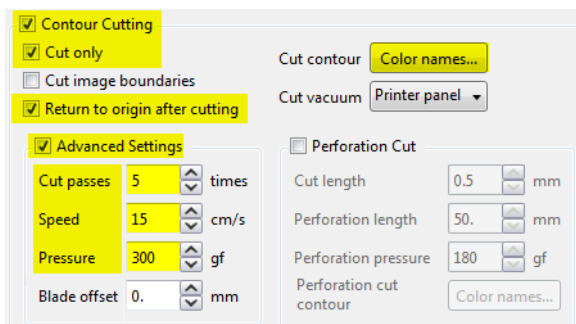
Note:

The print job does not contain a white ink channel. You can therefore disable the third print pass. Settings for metallic silver ink are not covered here. Please refer to the other examples (see page 8-1 and 9-1).



- Click the CUTTING button.
- Enable the options highlighted in the figure below.

Set the number of cut passes to **5**, the cutting speed to **15** cm/s and the pressure to **300** gf.

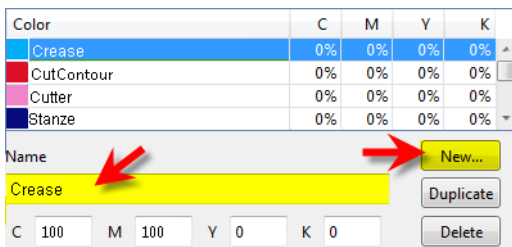


9. Click the CUT CONTOUR: COLOR NAMES button.

10. Enter the name of the spot color that defines the crease lines. To do so, click NEW and type CREASE into the box.

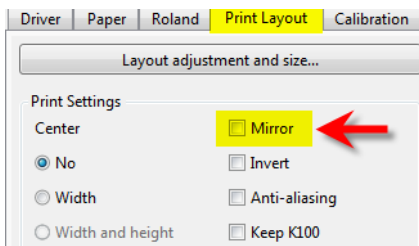
Note: It does not matter if the list also contains a spot color named CUT-CONTOUR. We have deleted the cut contour from **Job 1**.

Note: You can also define CMYK values. They are only used for representing the color in the job preview. Color names are case sensitive.



11. Close the two dialogs by clicking **OK**.

12. Make sure the MIRROR option is disabled.

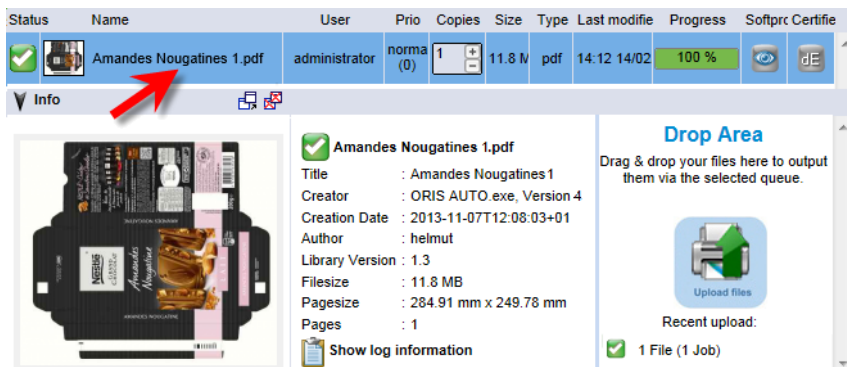


13. Click **OK** to close the SETTINGS dialog.

14. Click  to start the job. The cardboard will be creased.

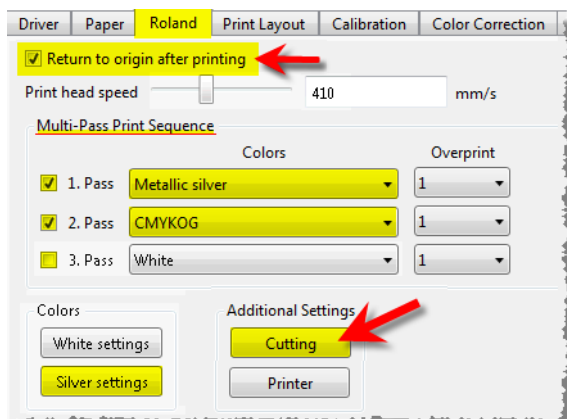
Printing Job 1

1. Select **Job 1** in the list, then click .



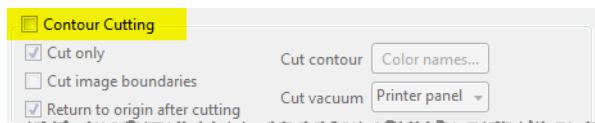
The screenshot shows the ORIS software interface. At the top, there is a table with columns: Status, Name, User, Prio, Copies, Size, Type, Last modifie, Progress, and Softprc Certifie. The first row is highlighted in blue and contains a green checkmark, a small icon, the name 'Amandes Nougatines 1.pdf', the user 'administrator', priority 'norma (0)', 1 copy, size '11.8 N', type 'pdf', last modified '14:12 14/02', progress '100 %', and a 'dE' icon. Below the table, there is an 'Info' section. On the left, there is a preview of the cardboard box layout. On the right, there is a 'Drop Area' with a green arrow icon and the text 'Drag & drop your files here to output them via the selected queue.' Below the 'Drop Area', there is a 'Recent upload:' section showing '1 File (1 Job)'.

2. Enable the RETURN TO ORIGIN AFTER PRINTING option.



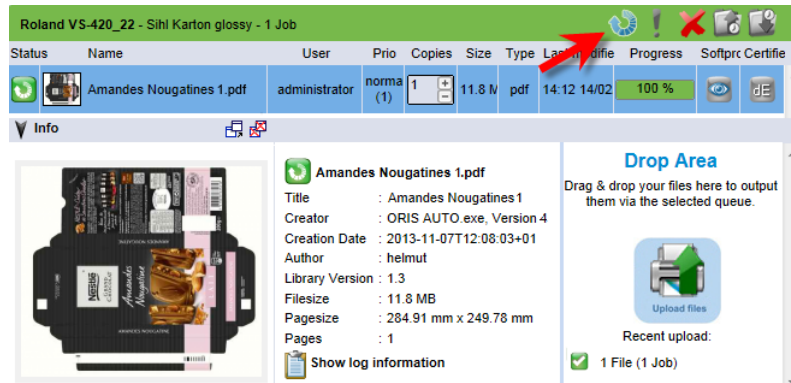
The screenshot shows the 'Print Layout' dialog box. The 'Return to origin after printing' checkbox is checked and highlighted with a red arrow. Below this, there is a 'Print head speed' slider set to 410 mm/s. The 'Multi-Pass Print Sequence' section shows three passes: 1. Pass (Metallic silver), 2. Pass (CMYKOG), and 3. Pass (White). The 'Colors' section has 'White settings' and 'Silver settings' buttons. The 'Additional Settings' section has a 'Cutting' button highlighted with a red arrow and a 'Printer' button.

3. Click the CUTTING button.
4. Disable the CONTOUR CUTTING option.



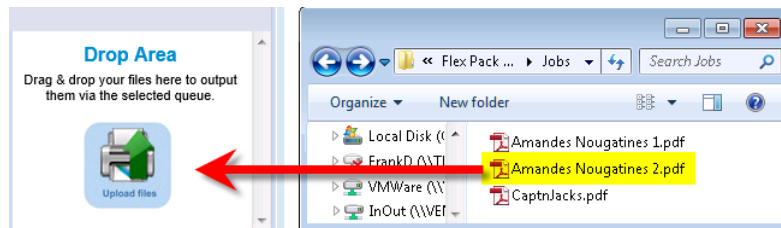
The screenshot shows the 'Contour Cutting' dialog box. The 'Contour Cutting' checkbox is unchecked and highlighted with a red arrow. Below this, there are three checkboxes: 'Cut only' (checked), 'Cut image boundaries' (unchecked), and 'Return to origin after cutting' (checked). To the right, there are two input fields: 'Cut contour' with a 'Color names...' button, and 'Cut vacuum' with a 'Printer panel' dropdown menu.

5. Close all dialogs by clicking **OK**.
6. Click  to reprocess **Job 1**. The ink will be printed on the cardboard.

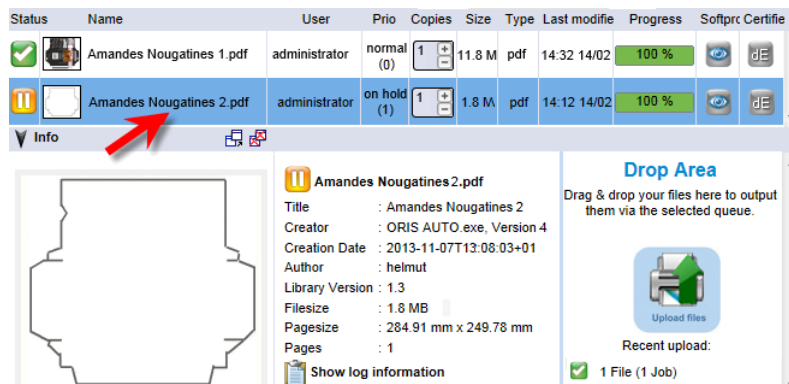


Cutting Job 2

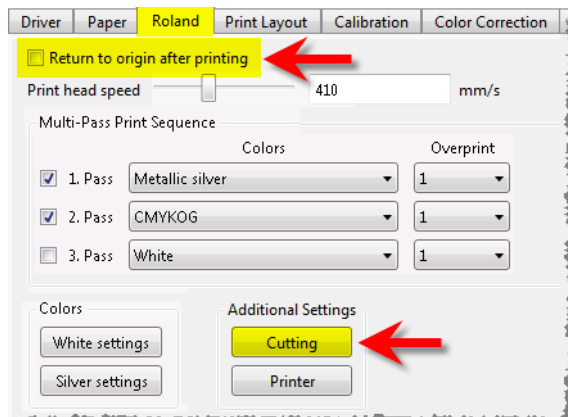
1. Replace the printer's crease tool with the cutter tool.
2. Select the output queue, then drag **Job 2** onto the DROP AREA.
This is the job that contains nothing but the cut contour.



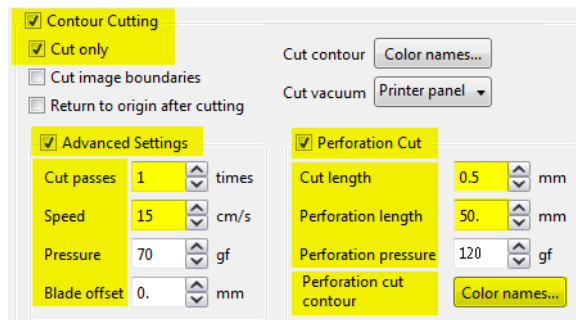
3. Select **Job 2** in the list, then click .



4. Make sure the RETURN TO ORIGIN AFTER PRINTING option is disabled.



5. Click the CUTTING button.
6. Enable the options highlighted in the figure below.



7. Set the number of cut passes to **1** and the cutting speed to **15** cm/s.
8. Define the perforation cut lines as follows:
Line segments at which the cardboard should be cut partially:
 - PERFORATION CUT: CUT LENGTH: Short, e.g. **0.5** mm
 - ADVANCED SETTINGS: PRESSURE: Low, e.g. **70** gf
Line segments at which the cardboard should be cut through entirely:
 - PERFORATION CUT: PERFORATION LENGTH: Long, e.g. **50** mm
 - PERFORATION CUT: PERFORATION PRESSURE: High, e.g. **120** gf
The appropriate cutter pressure values depend on the thickness of the cardboard and the condition of the cutter blade. The blade offset is the distance between the tip and the center of the cutter blade.
9. Click the PERFORATION CUT CONTOUR: COLOR NAMES button.

- 10.** Enter the name of the spot color that defines the perforated cut lines.
To do so, click **NEW** and type **CUTCONTOUR** into the box.

Note:

You can also define CMYK values. They are only used for representing the color in the job preview. Color names are case sensitive.

Color	C	M	Y	K
Contour	100%	100%	0%	0%
CutContour	100%	100%	0%	0%
Cutting Guide	100%	100%	0%	0%
SF_Stanze	100%	100%	0%	0%

Name **New...** **Duplicate** **Delete**

C M Y K

- 11.** Close all dialogs by clicking **OK**.

- 12.** Click  to start the job.

The outline of the chocolate box will be perforated. You can then remove the chocolate box from the cardboard.

11 Cutting Only...

Printing on transfer film with cut marks.

Transfer film to cardboard

Load cardboard on VS printer (same printer)

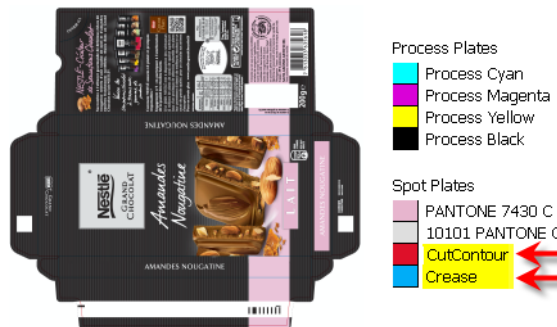
Cut only -- applying cut marks

See video from Yan Wei Phin: <http://youtu.be/uWyJVJp9YpQ>

D:\Dokus_extern\RolandDG\RolandCutOnly.mp4

Explain in detail: Helmut and Marcus

In this example, we will produce a packaging proof on original cardboard stock using a Roland DG printer. It is a chocolate box which will be creased, printed and then cut out using the integrated cutter.



Our sample print job contains two special spot colors. CREASE defines the crease lines and CUTCONTOUR the cut lines. We will produce perforated cut lines to prevent the chocolate box from falling into the printer and getting damaged.

The following is required to make the program use these spot colors in the way we want:

- When designing the page in your layout program, use vector data (often called *paths* or *strokes*) for the crease and cut lines.
- Duplicate the page and make the following changes:
Job 1: Delete the cut contour.
Job 2: Delete all page elements except the cut contour.
Convert both pages to PDF, EPS or PostScript format.
- In ORIS Flex Pack//Web, add the spot color named CREASE to the list of cut contours and CUTCONTOUR to the list of perforation cut contours (both are *.osc files). See below for more details.

Process the two jobs in the following way:

1. Insert the printer's crease tool and process **Job 1** with the CUT ONLY and RETURN TO ORIGIN AFTER CUTTING options enabled. The cardboard will be creased. (It is important to crease the cardboard first, otherwise the crease tool would smear the wet ink.)
2. Reprocess **Job 1** with the CONTOUR CUTTING option disabled and RETURN TO ORIGIN AFTER PRINTING enabled. The ink will be laid down.
3. Insert the cutter tool and process **Job 2** with the CUT ONLY and PERFORATION CUT options enabled. The chocolate box will be perforated.

The details are explained below.

It is assumed that you have calibrated and color-matched your Roland printer already. We will only explain the specific output queue settings required for this example. Note that you have to create a separate RFP file with a different setup (paper type, color mode and print sequence).

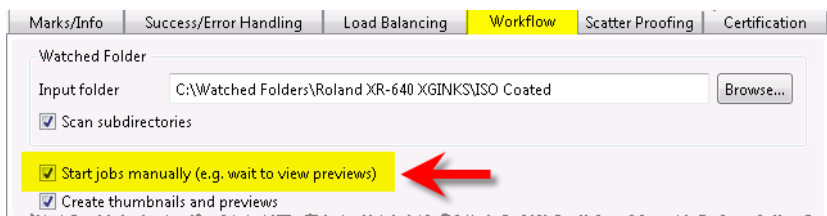
Note: Contour cutting is not supported if the SCREENDOT printing method, the Adobe PDF Print Engine or the CENTER option are used.

- » RELATED TOPICS:
- ADJUSTING PRINTER HARDWARE (PAGE 4-1)
 - SETTING UP FLEX PACK//WEB FOR PACKAGE PROOFING (PAGE 5-1)
 - HALFTONE PROOFING (PAGE 7-1)

Output Queue Setup

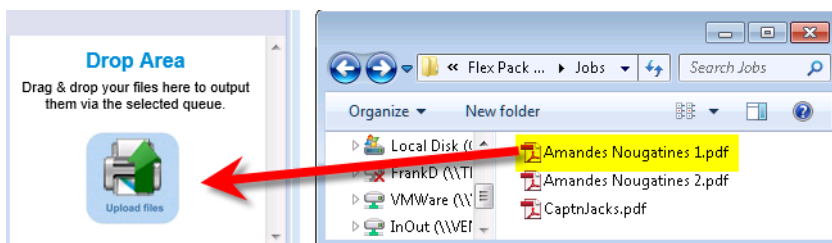
We will add a job to the print queue, change the job setup and then start the job manually. It is therefore important to configure the output queue such that new jobs are put on hold and not processed automatically.

1. Select the output queue and click .
2. Select the WORKFLOW tab.
3. Enable the START JOBS MANUALLY... option.
4. Click **OK** to close the dialog.

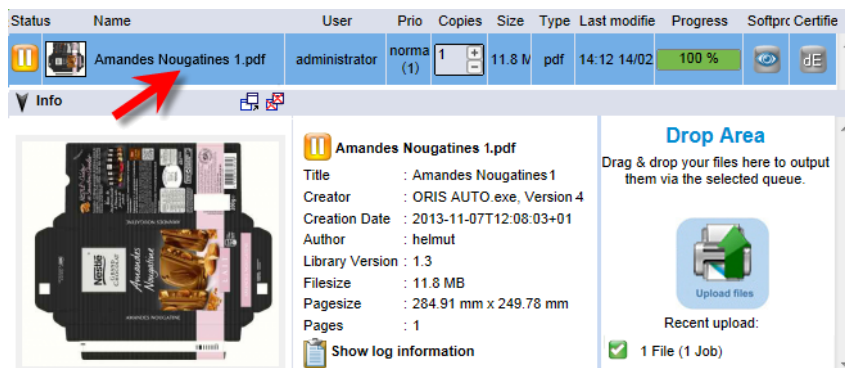


Creasing Job 1

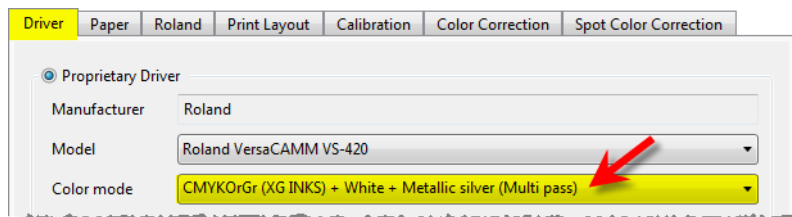
1. Insert the printer's crease tool.
2. Select the output queue, then drag **Job 1** onto the DROP AREA.
This is the job that contains all page elements except the cut contour.



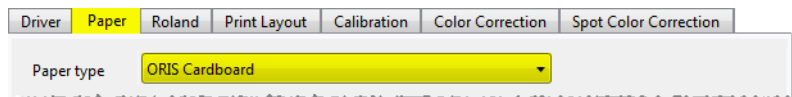
3. Select **Job 1** in the list, then click .



4. Set the COLOR MODE as shown in the image.



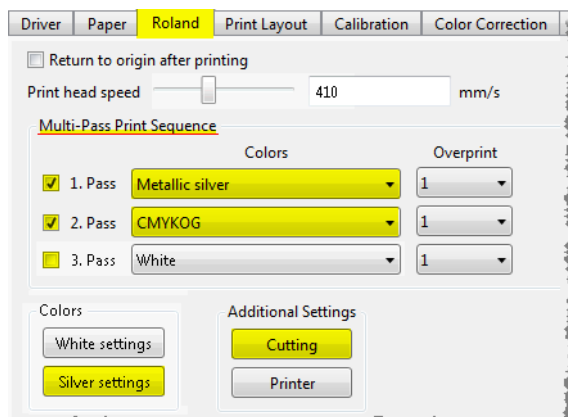
5. Set the PAPER TYPE to ORIS CARDBOARD.



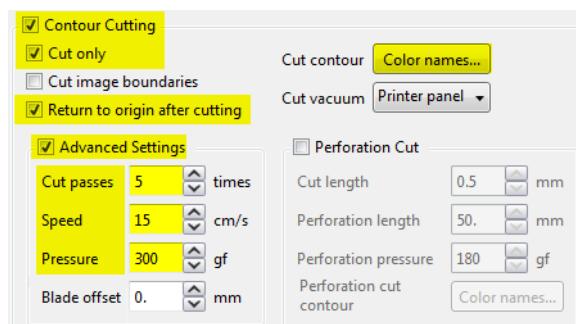
6. Set the sequence of print passes as shown in the image.

Note:

The print job does not contain a white ink channel. You can therefore disable the third print pass. Settings for metallic silver ink are not covered here. Please refer to the other examples (see page 8-1 and 9-1).



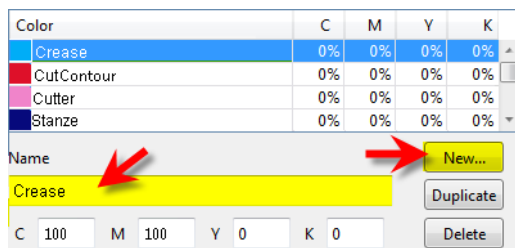
7. Click the CUTTING button.
8. Enable the options highlighted in the figure below.
Set the number of cut passes to **5**, the cutting speed to **15** cm/s and the pressure to **300** gf.



9. Click the CUT CONTOUR: COLOR NAMES button.
10. Enter the name of the spot color that defines the crease lines. To do so, click NEW and type CREASE into the box.

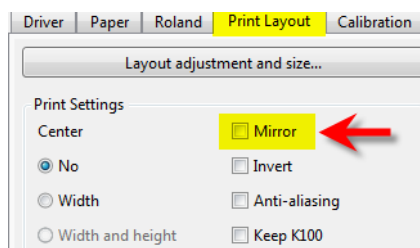
Note: It does not matter if the list also contains a spot color named CUT-CONTOUR. We have deleted the cut contour from **Job 1**.

Note: You can also define CMYK values. They are only used for representing the color in the job preview. Color names are case sensitive.



11. Close the two dialogs by clicking **OK**.

12. Make sure the MIRROR option is disabled.

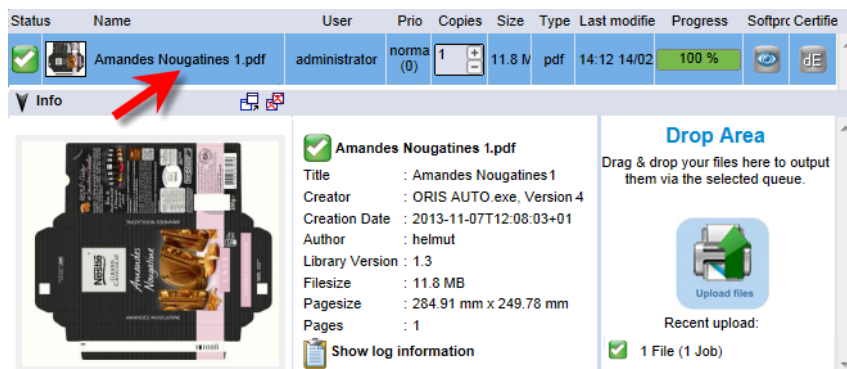


13. Click **OK** to close the SETTINGS dialog.

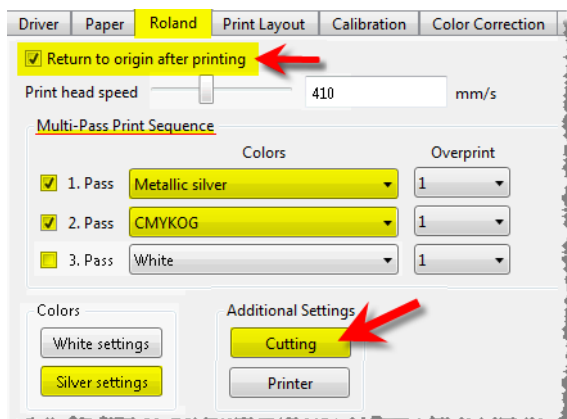
14. Click  to start the job. The cardboard will be created.

Printing Job 1

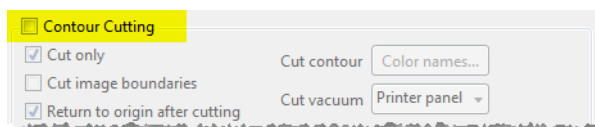
1. Select **Job 1** in the list, then click .



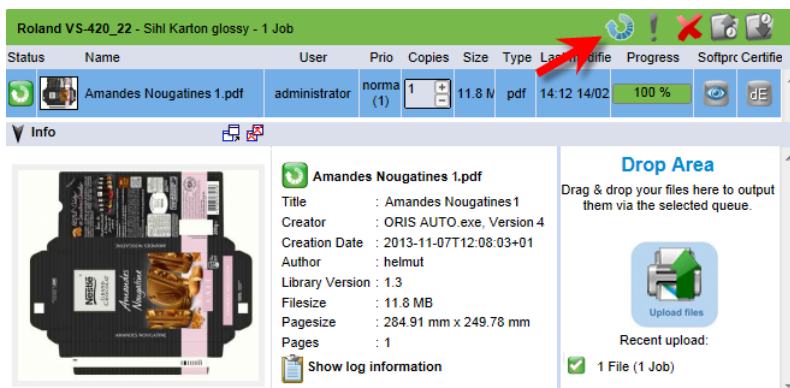
2. Enable the RETURN TO ORIGIN AFTER PRINTING option.



3. Click the CUTTING button.
4. Disable the CONTOUR CUTTING option.



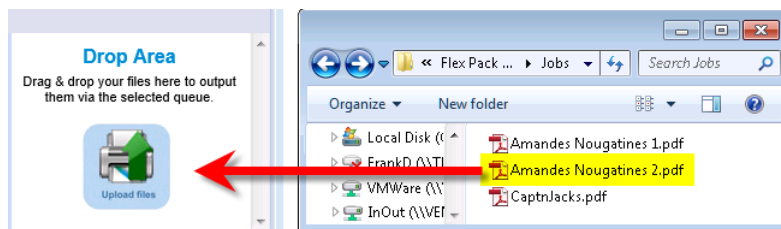
5. Close all dialogs by clicking **OK**.
6. Click  to reprocess **Job 1**. The ink will be printed on the cardboard.



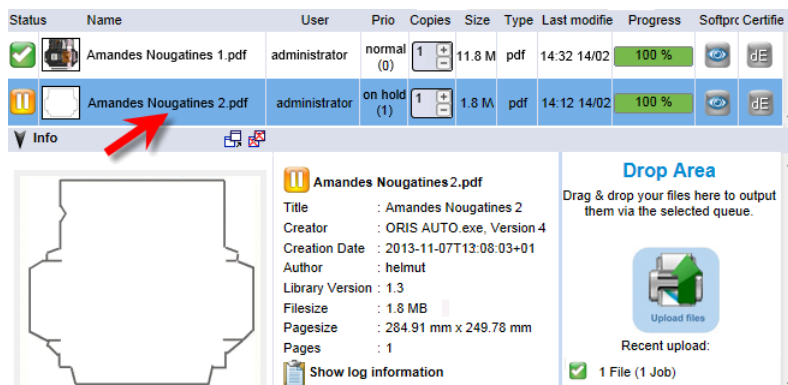
Cutting Job 2

1. Replace the printer's crease tool with the cutter tool.
2. Select the output queue, then drag **Job 2** onto the DROP AREA.

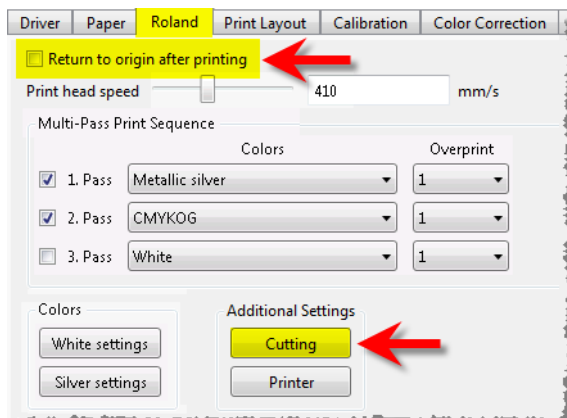
This is the job that contains nothing but the cut contour.



3. Select **Job 2** in the list, then click .

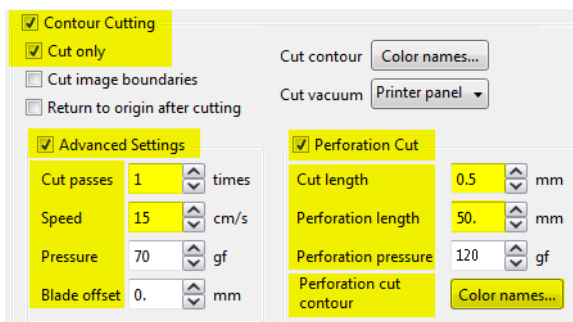


4. Make sure the **RETURN TO ORIGIN AFTER PRINTING** option is disabled.



5. Click the **CUTTING** button.

6. Enable the options highlighted in the figure below.



7. Set the number of cut passes to **1** and the cutting speed to **15** cm/s.

8. Define the perforation cut lines as follows:

Line segments at which the cardboard should be cut partially:

- PERFORATION CUT: CUT LENGTH: Short, e.g. **0.5** mm
- ADVANCED SETTINGS: PRESSURE: Low, e.g. **70** gf

Line segments at which the cardboard should be cut through entirely:

- PERFORATION CUT: PERFORATION LENGTH: Long, e.g. **50** mm
- PERFORATION CUT: PERFORATION PRESSURE: High, e.g. **120** gf

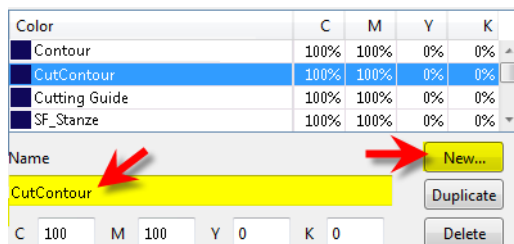
The appropriate cutter pressure values depend on the thickness of the cardboard and the condition of the cutter blade. The blade offset is the distance between the tip and the center of the cutter blade.

9. Click the PERFORATION CUT CONTOUR: COLOR NAMES button.

10. Enter the name of the spot color that defines the perforated cut lines.
To do so, click NEW and type CUTCONTOUR into the box.

Note:

You can also define CMYK values. They are only used for representing the color in the job preview. Color names are case sensitive.



Color	C	M	Y	K
Contour	100%	100%	0%	0%
CutContour	100%	100%	0%	0%
Cutting Guide	100%	100%	0%	0%
SF_Stanze	100%	100%	0%	0%

Name: **CutContour**

C: 100 M: 100 Y: 0 K: 0

Buttons: New..., Duplicate, Delete

11. Close all dialogs by clicking **OK**.

12. Click  to start the job.

The outline of the chocolate box will be perforated. You can then remove the chocolate box from the cardboard.

12 Miscellaneous

Printing White Ink or Varnish Only

Using Roland DG printers it is possible to print with white ink only, i.e. without any CMYK or clear ink (varnish). Likewise, you can print with clear ink (varnish) without any CMYK or white. Setting this is not difficult, but it may not be obvious immediately. Proceed as follows:

1. Select the output queue and click .
2. Select the DRIVER tab.
3. Select a ...(MULTI PASS) color mode that includes white ink and varnish.
4. Select the ROLAND tab.
5. Under MULTI-PASS PRINT SEQUENCE, select the following:

White only

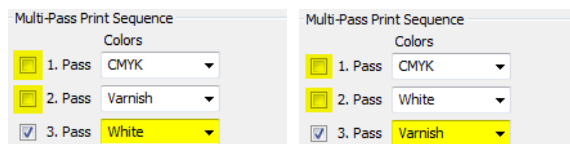
1. CMYK
2. Varnish
3. White

Varnish only

1. CMYK
2. White
3. Varnish

6. Disable the first two print passes.

Fig. 12-1 Printing Only White (left) or Clear Ink (right)





MORE

13

Setting up Contract Proofer

ORIS Flex Pack//Web can be easily set up for color-matched output using the *Setup Wizard* . It will guide you step by step through the setup process. All settings can be corrected  (see page 13-7).

The setup process involves various tasks and requires some understanding of the program and subject matter. We therefore recommend you familiarize yourself with some important terms and concepts before starting the wizard. Refer to page 1-12 for more details.

You should also read about *Printer Calibration* (page 14-1).

Adjusting Printer

Before setting up your printer, make sure it works correctly. Use the software tools provided by the printer manufacturer to check and readjust the printer.

Most printer drivers include the following tools:

- *Nozzle Check* – checks whether print head nozzles are clogged
- *Head Cleaning* – cleans clogged nozzles

This tool can also be started using the UTILITIES | PRINT HEAD CLEANING command in ORIS Flex Pack//Web.

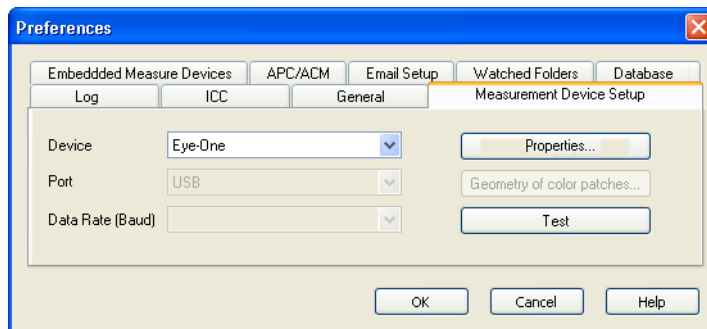
- *Print Head Alignment* – detects and corrects misaligned print heads

HP DesignJet printers should be calibrated internally using the embedded measurement device. The calibration process can be started on the printer's control panel or using the *HP Color Center* software. This tool is available in the software package delivered with the printer.

Setting Program Preferences

Before setting up an output queue you should set your preferences for ORIS Flex Pack//Web. Select FILE | PREFERENCES to do so. Click the HELP button if you need information about the options on the different tabs. Some of the important options are explained below.

Fig. 13-1 'Measurement Device Setup' Tab (Preferences)



Queue Setup Files

The queue setup process creates various files such as calibration files (*.cal) and color tables (*.dat). These files are saved under ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\, by default. There are sub-folders for printers and output queues.

You can choose another save location using the QUEUE SETUP FILES option on the GENERAL tab of the PREFERENCES dialog.

Measurement Device

The options on the MEASUREMENT DEVICE SETUP tab of the PREFERENCES dialog apply to the external measurement device connected to your computer. Select the device and specify its properties, e.g. the RESPONSE STATUS to be used for measuring color density.

Set the RESPONSE STATUS in accordance with the *reference printer profile* (RFP file) that will be used for iterative printer calibration.

Embedded Measurement Devices

The options on the EMBEDDED MEASURE DEVICES tab apply to spectrophotometers embedded in printers. Specify the ink drying time and the RESPONSE STATUS for measuring color density.

Set the RESPONSE STATUS in accordance with the reference printer profile that will be used for iterative printer calibration (see page 14-3).

Email Notification

ORIS Flex Pack//Web can automatically send e-mail notifications. You can select the events you would like to be notified on, e.g. errors, warnings, or the start and end of job output.

To use this feature, specify the details for the outgoing SMTP server. Use the options on the EMAIL SETUP tab of the PREFERENCES dialog.

See also *EMAIL NOTIFICATION* (page 13-10).

Creating Files for Halftone Dot Proofing

If you are going to proof halftone data (SCREENDOT), create your own test charts and color bars. Screen these files with the same RIP settings that were used for the jobs. You also need special reference printer profiles (RFP files) created with these screened test charts.

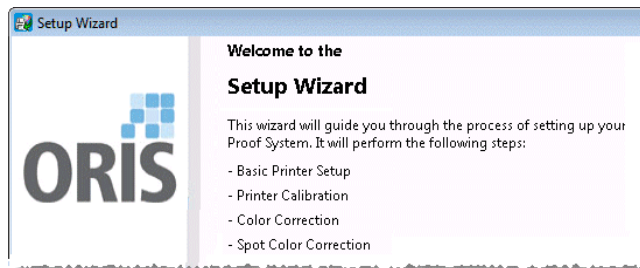
Special RFP files are also required for creating halftone proofs from CT data (SCREENDOT PLUS). Refer to page 18-2 for more details.

- » RELATED TOPICS:
 - SCREENDOT AND SCREENDOT PLUS (PAGE 1-13)
 - RFP FILES (PAGE 14-3)
 - HALFTONE PROOFING (PAGE 18-1)

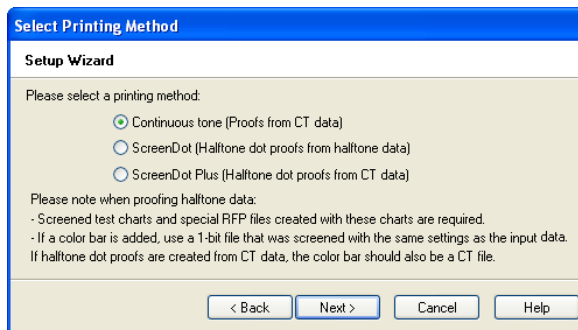
Creating Output Queues

Create an output queue using the Setup Wizard (see page 1-12).

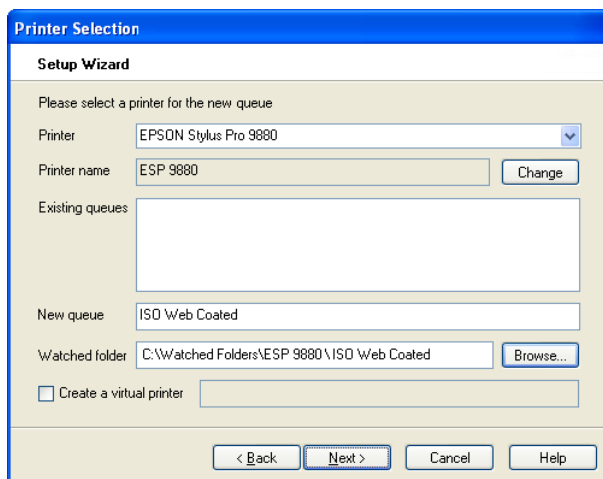
1. Click on  to start the wizard.



2. Select the printing method: Proofing continuous tone data, proofing halftone data or creating halftone proofs from CT data (see page 1-13).

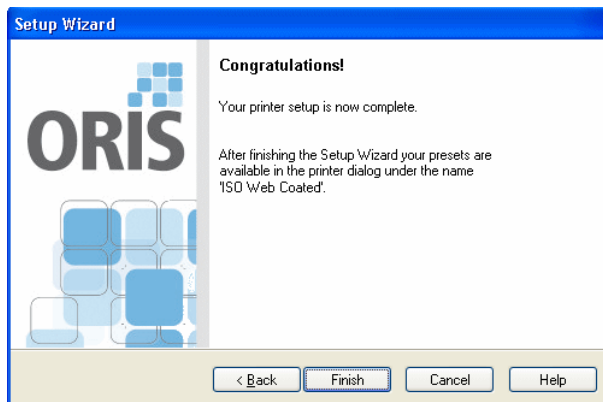


3. In the next dialog, make the following settings:
 - **PRINTER:** Select your proof printer here.
 - **PRINTER NAME:** This is the name under which the printer will be listed in the program. Click on **CHANGE** if you want to modify it.
 - **NEW QUEUE:** Enter a name for the new output queue. All settings made with this wizard will be assigned to this queue.
 - **WATCHED FOLDER:** The folder selected here will become a watched folder. Files added to this folder will be printed automatically using the settings of the output queue (see also page 15-1). You can edit the path name or select a different folder using the **BROWSE** button. The selected folder must be empty.
 - **CREATE A VIRTUAL PRINTER:** Enable this option only if you want to print color-matched documents directly from a DTP application.



4. The wizard will guide you through the setup process. This process includes calibration, color matching and spot color correction.

Follow the instructions on the screen. The dialogs are not shown here. If you need help with the dialog options, click the HELP button.



5. After completing the Setup Wizard, click FINISH to close it.

The new printer and output queue will be displayed on the left-hand side of the main window. Otherwise press F5 to update the screen.

» RELATED TOPICS:

- PRINTER CALIBRATION (PAGE 14-1)
- OUTPUT VIA WATCHED FOLDERS (PAGE 15-1)
- OUTPUT FROM OTHER APPLICATIONS (PAGE 15-6)

Applying Existing Color Tables

If the Setup Wizard is used, color tables (ORIS_DAT files) are created and assigned automatically to the output queue. You can also use color tables that exist already. These color tables can be assigned to existing queues or selected when creating new queues with the Setup Wizard.

This is required in the following cases:

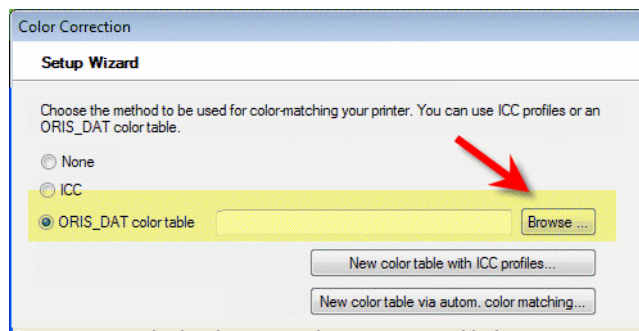
- A group of identical printer models is matched to the same target.
See also *Aligning Printers for Load Balancing or Remote Proofing* (page 14-7).
- Iterative color matching was not done via the Setup Wizard, but via the COLOR | COLOR MATCHING | ... menu.

- Predefined color tables for proofing on inkjet devices are used.

ORIS Flex Pack//Web has been certified by SWOP, FOGRA and ECI for simulating standard printing conditions on various Canon, Epson and HP printers using different inks and proofing papers. Various color tables can be downloaded from <http://www.cgs-oris.com>.

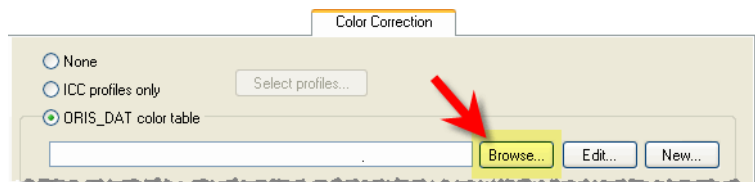
Assigning Color Table to New Queue

1. Click  to start the Setup Wizard.
2. Follow the instructions on the screen. Always click NEXT to proceed with the next step. Enter a name for the new output queue.
3. Having reached the COLOR CORRECTION dialog, select the option ORIS_DAT COLOR TABLE.
4. Click on BROWSE and select the *.dat file.



Assigning Color Table to Existing Queue

1. Select the output queue (see page 16-1).
2. Click on .
3. Select the COLOR CORRECTION tab.
4. Select the ORIS_DAT COLOR TABLE option.
5. Click on BROWSE and select the *.dat file.



Modifying Output Queues

You can correct the settings specified with the Setup Wizard and also specify additional options that are not available there. The settings can be applied to the queue or to a single job in the queue.

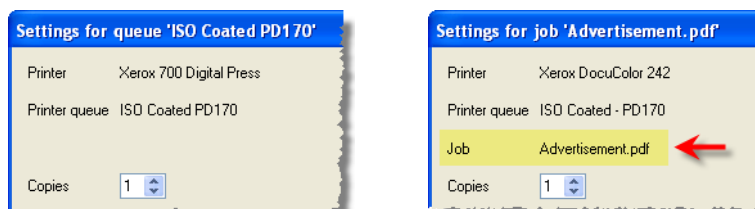
Below is an overview and a short introduction to some of the additional options. Please click the HELP button in the dialog for more information.

How to Modify Job or Queue Settings

1. Select the output queue (see page 16-1). Or select the job (see page 16-8) if the modifications should apply to this single job only.
2. Click on  to open a dialog.
The title bar indicates the name of the queue or job that will be modified (see Fig. 13-2).
3. Make the changes on the different dialog tabs.
Click the HELP button if you need help with the options and settings. Some of the additional options are explained below.
4. Click **OK** to close the dialog and to apply the changes.

Changes to an output queue do not apply to jobs that reside in this queue already, even if you reprocess them. The modified settings will only be applied to jobs added to the queue subsequently.

Fig. 13-2 *Modifying a Queue (Left) and a Job (Right)*



Overview of Additional Options

This is an overview of the options available for output to printers in addition to those specified with the Setup Wizard. The options are located on various tabs of the **SETTINGS** dialog.

Option	Dialog tab	More details
Iterative linearization, calibration and recalibration	CALIBRATION	page 14-1
Adobe PDF Print Engine off/on Preflight check options Advanced PDF/PS options	PS/PDF INPUT	See online help file
Adding information text and logo	MARKS/INFO	
Moving or deleting jobs after processing them	SUCCESS/ERROR HANDLING	page 13-9
Output to additional queues	LOAD BALANCING	page 13-9
Changing watched folder Turning off preview images Soft proofing E-mail notification	WORKFLOW	page 13-10
Printing multiple jobs together to save paper	SCATTER PROOFING	page 20-1

Option	Dialog tab	More details
Mirror, invert, center Offsets for 2-sided printing Printing single separations Adding noise Image sharpening Image interpolation Simulation of misregistration	PRINT LAYOUT	See online help file
Proof certification with color bar	CERTIFICATION	page 21-1

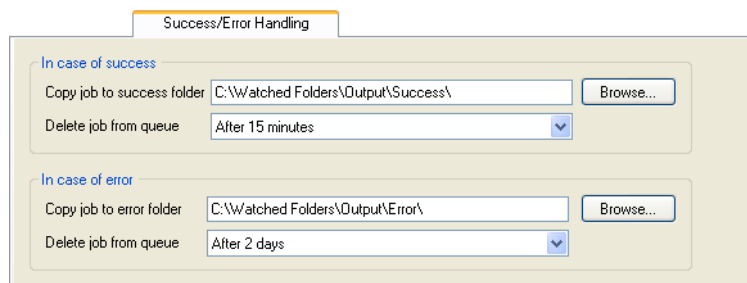
Error and Success Handling

You can specify the following actions for jobs that have been output successfully and for jobs that have failed:

- Copy the job to a specific folder (immediately)
- Delete the job from the output queue after a specified time interval

These options can be selected on the SUCCESS/ERROR HANDLING tab of the SETTINGS dialog.

Fig. 13-3 Specifying Success and Error Handling

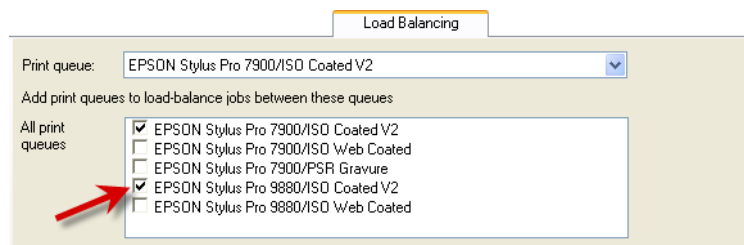


Load Balancing

This function allows you to equally distribute print jobs to multiple output queues. A job will always be sent to the output queue that contains the smallest number of jobs waiting to be printed.

In the SETTINGS dialog, click on the LOAD BALANCING tab. Select the output queues that should be used in addition to the selected queue.

Fig. 13-4 Selecting Output Queues for Load Balancing



Soft Proofing, Email, Watched Folder, Previews

In the SETTINGS dialog, click on the WORKFLOW tab. Make the following specifications here:

- WATCHED FOLDER

Here you can change the folder that will be monitored by the queue. Files in this folder will be output automatically. Files in subfolders are only output if SCAN SUBDIRECTORIES is enabled.

- START JOBS MANUALLY...

Enable this option if jobs added to this output queue should be put on hold automatically. This makes sure you can view a job's preview image before the job is processed. Jobs with this setting are not processed until you start them (see page 16-11).

- CREATE THUMBNAILS AND PREVIEWS

Preview and thumbnail images are only generated if this option is enabled. You may want to disable this option to speed up processing.

- SOFTPROOF ENABLED

To create color-matched low-res PDF/X-3 files for soft proofing, enable this option, select an ICC OUTPUT PROFILE and also enable SOFT-PROOF REQUIRED. The ICC profile defines the color space to be simulated on the screen. Refer to page 19-1 for more details.

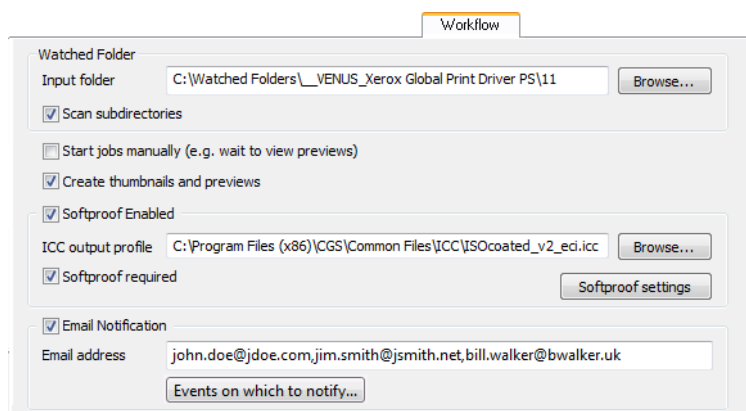
Note: Remote users working with the ORIS Flex Pack//Web Client are only allowed to create soft proofs if an ICC output profile is selected here.

- EMAIL NOTIFICATION

Enable this option if e-mail notifications should be sent automatically. Enter the recipients' e-mail addresses and select the events you would like to be notified on.

Note: You can only enable this option if you have specified the details for the outgoing SMTP server (see page 13-3).

Fig. 13-5 *Softproof, Email, Watched Folder and Preview Settings*



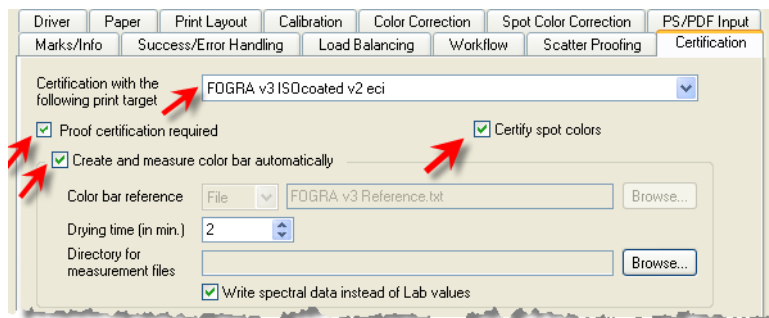
Proof Certification

ORIS Certified/Web allows you to verify whether your proof colors are within the tolerance limits. A 30-day fully functional demo version of this program has been installed. Add a color bar to your jobs and measured it. The certification result is indicated in ORIS Flex Pack//Web.

Use the CERTIFICATION tab of the SETTINGS dialog to set up proof certification. Refer to page 21-1 for more details.

The certification process runs fully automatically if printers with an embedded spectrophotometer are used. Fig. 13-6 shows how to set up automatic proof certification for CT data with Epson or Canon printers.

Fig. 13-6 *Setting up Automatic Proof Certification*

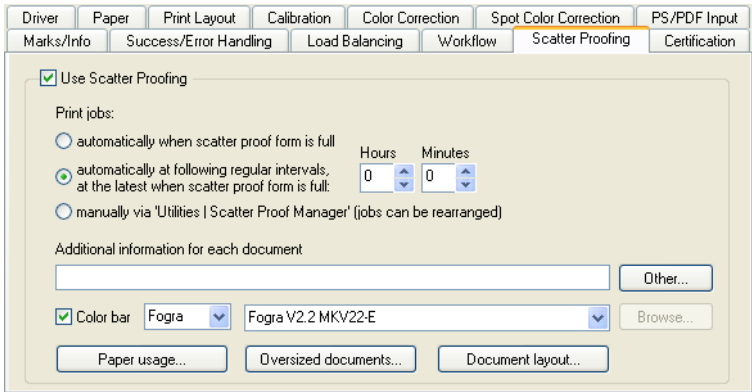


Scatter Proofing

The scatter proofing function allows you to print multiple jobs on the same sheet to save paper. In the SETTINGS dialog, click on the SCATTER PROOFING tab and then on the USE SCATTER PROOFING option.

Refer to page 20-1 for more details.

Fig. 13-7 Scatter Proof Settings



The image shows a software dialog box titled "Scatter Proof Settings". At the top, there is a horizontal tab bar with the following tabs: "Driver", "Paper", "Print Layout", "Calibration", "Color Correction", "Spot Color Correction", "PS/PDF Input", "Marks/Info", "Success/Error Handling", "Load Balancing", "Workflow", "Scatter Proofing" (which is currently selected and highlighted with an orange underline), and "Certification".

Inside the dialog box, the "Use Scatter Proofing" checkbox is checked. Below this, under the heading "Print jobs:", there are three radio button options:

- ☐ automatically when scatter proof form is full
- ☒ automatically at following regular intervals, at the latest when scatter proof form is full: (This option is selected and has associated "Hours" and "Minutes" spinners, both currently set to 0.)
- ☐ manually via 'Utilities | Scatter Proof Manager' (jobs can be rearranged)

Below the radio buttons, under the heading "Additional information for each document", there is a text input field and an "Other..." button. Below that, the "Color bar" checkbox is checked, followed by a dropdown menu set to "Fogra" and another dropdown menu set to "Fogra V2.2 MKV22-E". To the right of these is a "Browse..." button. At the bottom of the dialog, there are three buttons: "Paper usage...", "Oversized documents...", and "Document layout...".

14 Printer Calibration

Calibrating means setting the printer's color reproduction characteristics to a defined state. You should always *calibrate* a printer before characterizing it, i.e. before starting the profiling or color-matching process.

Calibration ensures accurate, predictable and repeatable results over time. It prolongs the validity of the color tables and ICC profiles used for the color simulation.

If calibration is not taken seriously, the *characterization* process – which can be extremely time-consuming – will need to be repeated frequently.

Important Terms and Concepts

Linearization

Linearizing a printer means setting it to a linear base state so that a 50% value is rendered as 50%, a 60% value as 60%, etc.

Linearization should always be the first step of the calibration process. Linearization improves the quality of the calibration and color matching process. The algorithms for calculating color tables and ICC profiles work best if the color system is linear.

The linearization process creates a gradation curve for each of the four process colors. The curves also define the density limit for solid colors, i.e. the maximum density of C100, M100, Y100 and K100. The linearization data is stored in a linearization file (*.lin).

If Roland printers with XG INKS are used, linearization applies to all 6 ink channels (not only to CMYK), provided that the COLOR MODE is set to CMYKORGR. 6-channel linearization data is stored in a calibration file (*.cal), not in a *.lin file.

You can also linearize the metallic silver and white ink channel when using printers that support these types of ink. This can only be done manually using gradation curves.

Standard Linearization

If *iterative printer calibration* is used, you can apply standard linearization curves in some cases. This speeds up the calibration process (express calibration), while usually providing sufficiently good results.

Standard linearization curves are an optional component of *reference printer profiles* (RFP files).

Fig. 14-1 Creating Linearization Data (CMYK Inks)

Density values - F:\ORIS_Files\ColorTuner\DEN\2.den

Color %	Target C	Meas. C	Target M	Meas. M	Target Y	Meas. Y	Target K	Meas. K
80.00	0.67	1.11	0.65	1.11	0.63	1.11	0.58	1.11
85.00	0.79	1.26	0.76	1.26	0.74	1.26	0.66	1.26
90.00	0.94	1.44	0.90	1.44	0.87	1.44	0.77	1.44
95.00	1.19	1.68	1.12	1.68	1.06	1.68	0.90	1.68
100.00	1.80	2.00	1.56	2.00	1.40	2.00	1.10	2.00

Color %	Target C	Meas. C	Target M	Meas. M	Target Y	Meas. Y	Target K	Meas. K
0.	0.	0.	0.	0.	0.	0.	0.	0.

Fig. 14-2 Creating Linearization Data (CMYK+Orange+Green)

Set the maximum target densities	RFP	Measurement
Cyan	2.33	2.41
Magenta	1.75	1.87
Yellow	1.74	1.88
Black	2.23	2.41
Orange	1.75	1.85
Green	1.51	1.58

Iterative Printer Calibration

ORIS Flex Pack//Web's iterative printer calibration function is an easy-to-use calibration tool that produces extremely accurate results, i.e. low delta E values.

This tool calibrates a linearized printer to a standard. This standard is defined by a *reference printer profile* (RFP file).

The calibration process is iterative because it consists of several rounds of printing and measuring a test chart. This produces and progressively optimizes a calibration file (*.cal).

The linearization file (*.lin) will be incorporated into the CAL file.

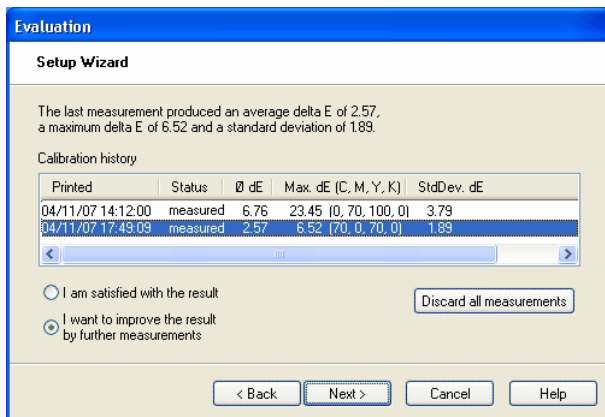
See also *Advantages of Iterative Calibration* (page 14-6).

Automatic and Scheduled Calibration

Printers equipped with an embedded measurement device (e.g. Epson SpectroProofer) can be calibrated fully automatically without any user intervention. The calibration process can be started automatically at regular intervals (scheduled recalibration).

Refer to page 14-41 for more details.

Fig. 14-3 Setup Wizard – Evaluating Optimized Calibration



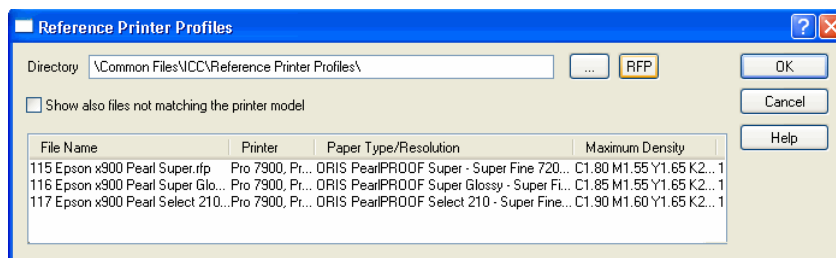
RFP Files

A *reference printer profile* (RFP file, *.rfp) is a characterization file that defines the colorimetric properties of a particular printer model used with a specific combination of ink, paper type, print resolution and printing method (e.g. ScreenDot).

RFP files also define the maximum solid densities and the maximum ink coverage (ink limits). These values are applied automatically during calibration. RFP files may also include standard linearization curves that can be used to speed up the calibration process (express calibration).

Predefined RFP files for printing CT data on most of the supported printers are included in the software package. ORIS Flex Pack//Web also allows you to create your own RFP files (see page 23-1).

Fig. 14-4 Selecting a Reference Printer Profile

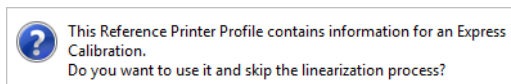


Express Calibration

Express calibration means omitting the linearization process and applying standard linearization curves instead. This speeds up the iterative printer calibration process.

Many of the predefined reference printer profiles (RFP files) include standard linearization curves. They usually provide sufficiently good results. When creating your own RFP files, you can embed linearization curves, provided that you are using Roland printers with XG INKS (CMYK+orange+green).

When selecting an RFP file containing linearization data, you are asked whether the linearization process should be omitted.



Recalibration

A printer's color reproduction characteristics are likely to change over time (color drift). This is caused by various factors including fluctuations in ambient climate conditions (temperature, humidity), change of consumables (ink, paper), or general aging processes (print head wear).

You should therefore recalibrate your printer regularly. This resets the printer to its original state and restores the validity of the color table or ICC profiles.

We recommend to repeat both the linearization and iterative printer calibration process. Both can be done easily using the *Recalibration Wizard*. Refer to page 14-36 for more details.

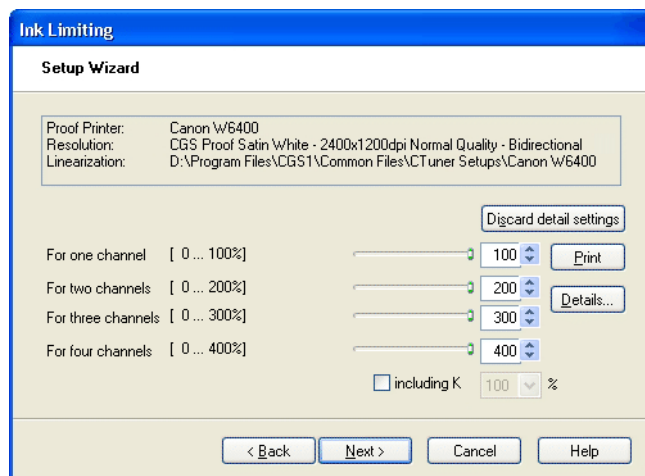
Ink Limiting

The program allows you to reduce ink coverage. This may be required when printing on less absorbent paper. Such paper may remain wet in dark areas where 3 or 4 colors are printed on top of each other. Detailed settings can be made for all possible color combinations.

The ink limit settings are stored in the calibration file (*.cal). If iterative printer calibration is used, you can apply the default ink limits stored in certain RFP files.

If Roland printers with XG INKS are used, ink limiting applies to all 6 ink channels (not only to CMYK), provided that the COLOR MODE is set to CMYKORGR.

Fig. 14-5 Setup Wizard – Ink Limiting



Advantages of Iterative Calibration

The following are some typical scenarios where iterative printer calibration comes into play. We will point out how you will benefit from this tool.

One Printer, One Target

The way a printer reproduces color changes over time (color drift) owing to fluctuations in temperature or humidity. The effort required for getting the colors back to the target varies considerably depending on the color management strategy you have used.

A: Recommended

1. Linearization
2. Ink limiting
3. Iterative calibration to RFP file
4. Iterative color matching

B: Not recommended

1. Linearization
2. Ink limiting
3. –
4. Iterative color matching

Advantage of Approach A

When the printer has drifted, you only need to *recalibrate* it. This procedure consists of linearization and calibration. It is done quickly, because the calibration test chart needs to be printed and measured only once.

After recalibration the color matching table (ORIS_DAT file) is valid again and your colors will be matched accurately as before.

Drawback of Approach B

When the printer has drifted, you have to repeat the linearization and iterative color matching process (i.e. recreate the ORIS_DAT color table). This can be extremely time consuming, because the color matching process usually consists of 3–5 iterations. This means printing and measuring the ECI2002 test chart up to 5 times.

In addition, if you have fine-tuned the ORIS_DAT file using the COLOR | SELECTIVE COLOR CORRECTION function, your work is lost and needs to be repeated. This can be very time consuming, too.

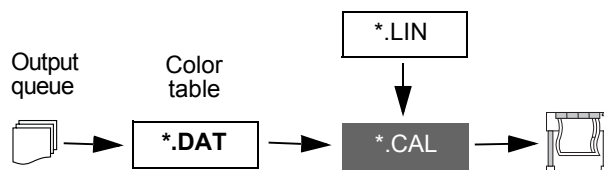
Files Created By Calibration and Color Matching

Linearization	LIN file
Ink limiting	CAL file (includes linearization)
Iterative calibration (with RFP file)	
Iterative color matching	ORIS_DAT file
Selective color corrections (fine tuning)	Optimized ORIS_DAT file

Annotations

- If an RFP file is used, you can often apply standard linearization curves instead of performing the linearization process (= express calibration).
- A 6-channel linearization process (CMYKOrGr) does not create any LIN files. The linearization data is stored in the CAL file.
- If an RFP file is used, the ink limits and density limits stored in the RFP file are applied automatically.

Fig. 14-6 How Calibration and Color Matching Files are Applied



- » RELATED TOPICS:
- RECALIBRATING (PAGE 14-36)
 - FINE TUNING (PAGE 25-1)

Multiple Printers, One Target

Aligning Printers for Load Balancing or Remote Proofing

To implement *load balancing* or *remote proofing* concepts, a group of identical printer models, all used with the same ink, paper type, resolution, solid densities and ink limits, has to be matched to the same target. Each printer should be calibrated iteratively prior to being color matched.

Example

ISO Coated V2 conditions should be simulated on three proof printers that are used to load-balance the proof jobs.

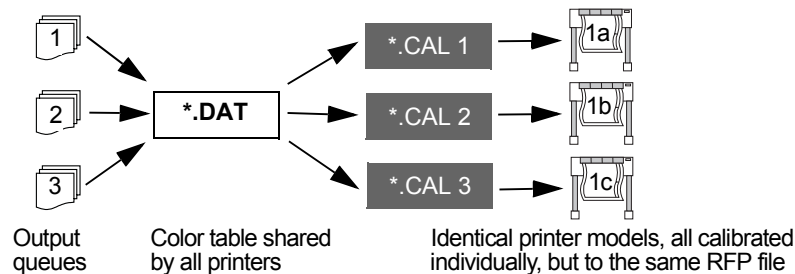
Strategy

1. Create three output queues, one for each printer.
2. Calibrate each printer to the RFP file that characterizes this printer. These are 3 iterative calibration processes resulting in 3 CAL files.
3. Iteratively color-match one of the printers to the ICC profile defining ISO Coated V2 conditions. This creates an ORIS_DAT file.
4. Select this ORIS_DAT file for the output queues of the other printers.
See also *Applying Existing Color Tables* (page 13-6).

Advantage

See *One Printer, One Target* (page 14-6).

Fig. 14-7 Sharing a Color Table for Load Balancing



One Printer, Multiple Targets

Iterative printer calibration is strongly recommended when matching a printer to multiple targets. You will save a lot of time.

Example

Three output queues are set up for the same proof printer – one for simulating ISO Coated V2 conditions, another for ISO Web Coated and yet another for PSRgravureMF.

Strategy

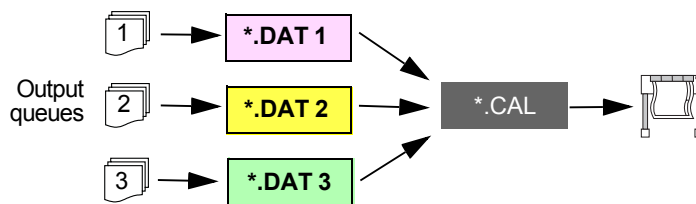
1. Create three output queues, one for each color simulation.
2. Iteratively calibrate the printer to the RFP file in one of the output queues. Select the resulting CAL file for the other output queues.
The three output queues share the same calibration file (*.cal).
3. Color-match the RFP file to each of the three targets. In other words, create a separate ORIS_DAT color table for each output queue.

Advantage

You only need to *recalibrate* the printer if it drifts over time. This needs to be done for one output queue only, as all queues share the same CAL file.

Without the use of iterative calibration you would have to repeat the color matching process for each output queue. This means recreating three ORIS_DAT color tables, which can be extremely time consuming.

Fig. 14-8 Simulating Multiple Targets



Multiple Printers, Multiple Targets

Iterative printer calibration is a real time saver if multiple printers need to be matched to multiple targets.

This typically applies to *load balancing* or *remote proofing* concepts where the same printer model – used with the same ink, paper type, resolution, solid densities and ink limits – is used several times (see also page 14-7).

Example

There are three identical proof printers. Each one needs to be matched to ISO Coated V2, ISO Web Coated and PSRgravureMF conditions.

Strategy

1. Create 9 output queues, one for each combination of printer and target printing conditions.
2. Calibrate each printer to the RFP file that characterizes this printer. These are 3 iterative calibration processes resulting in 3 CAL files.

In our example, this applies to output queue 1, 4 and 7 (see Fig. 14-9).

3. Color-match one of the printers to each of the 3 targets. These are 3 iterative color matching processes resulting in 3 ORIS_DAT files.

In our example, this applies to output queue 1, 2 and 3.

4. For the other output queues (5, 6, 8 and 9 in our example), select the appropriate combination of CAL and ORIS_DAT file. No calibration or color matching process is required.

Advantage

As little as 6 iterative processes are required:

- 3 matches from each proof printer to the RFP file (calibration)
- 3 matches from the RFP file to each target (color matching).

If iterative calibration is not used, each proof printer has to be matched to each target, resulting in as many as $3 \times 3 = 9$ iterative processes.

This means that you will have to recreate 9 ORIS_DAT color tables (see Fig. 14-10) when the printer's color reproduction characteristics change – instead of just recalibrating 3 printers (see Fig. 14-9).

The more targets to be simulated, the greater the time saving achieved with iterative printer calibration. The number of iterative processes required can be calculated as follows:

$m + n$	With iterative printer calibration
$m * n$	Without iterative printer calibration
where	m = number of printers
	n = number of targets

Fig. 14-9 *Simulating 3 Targets on 3 Printers (With Calibration)*

This is the recommended method. Only three color tables are required.

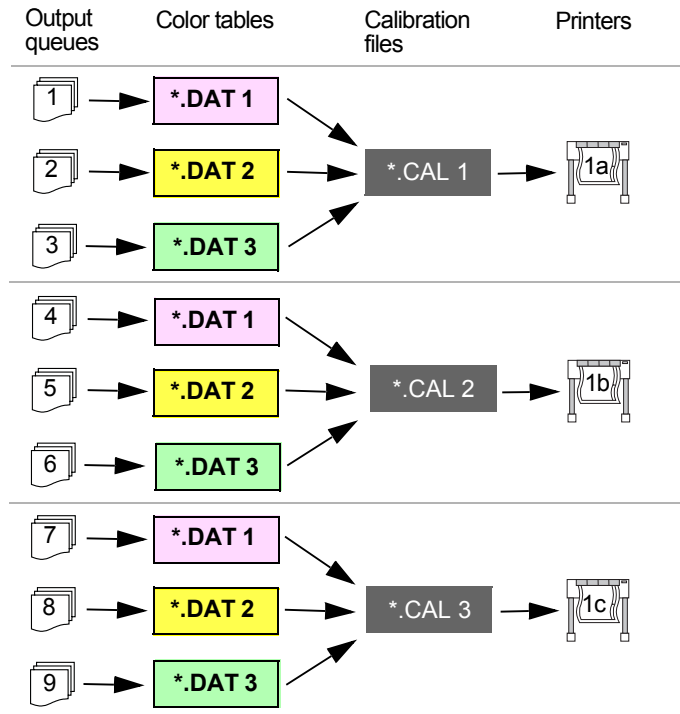
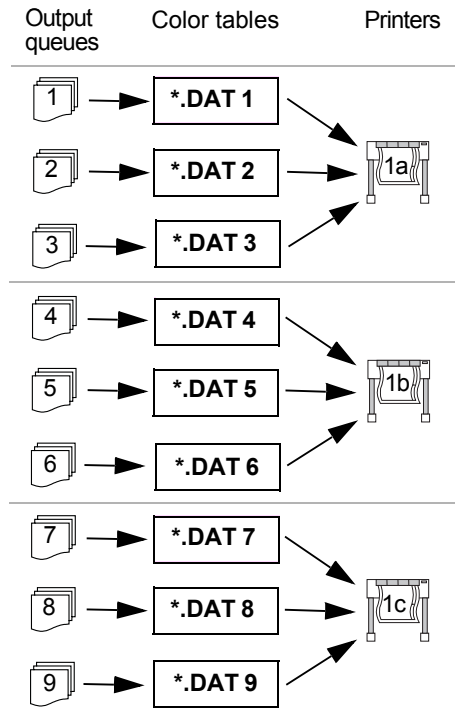


Fig. 14-10 *Simulating 3 Targets on 3 Printers (Without Calibration)*

We do not recommend this method. 9 different color tables are required.



Adjusting Printer

Before starting to calibrate, make sure your printer works correctly. Use the software tools provided by the printer manufacturer to check and readjust the printer.

Most printer drivers include the following tools:

- *Nozzle Check* – checks whether print head nozzles are clogged
- *Head Cleaning* – cleans clogged nozzles

This tool can also be started using the UTILITIES | PRINT HEAD CLEANING command in ORIS Flex Pack//Web.

- *Print Head Alignment* – detects and corrects misaligned print heads

HP DesignJet printers should be calibrated internally using the embedded measurement device. The calibration process can be started on the printer's control panel or using the *HP Color Center* software. This tool is available in the software package delivered with the printer.

Linearizing and Calibrating Iteratively

The following explains step by step how to calibrate your printer iteratively. This is the recommended procedure (see page 14-6). The following steps are performed:

- Linearization
Optional: Use linearization data from RFP file (express calibration).
- Reducing ink coverage (ink limiting)
Default values from the RFP file are applied automatically.
- Iterative printer calibration
Progressively reducing the color deviations by repeatedly printing and measuring a test chart.

Creating RFP Files

Reference printer profiles (*.rfp) are required for the iterative printer calibration process. They characterize the colorimetric properties of a particular printer used with a particular set of parameters.

Predefined RFP files for printing CT data on most of the supported printers are included in the software package.

Usually RFP files are stored in the installation directory ...\\Program Files\\CGS\\Common Files\\ICC\\Reference Printer Profiles\\. If there is no suitable RFP file available for your printer, you need to create one.

Refer to page 23-1 for details on creating RFP files using a wizard.

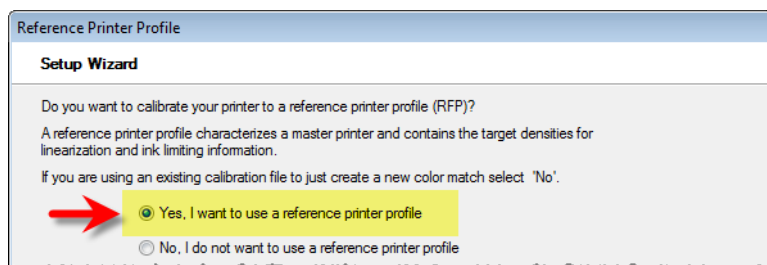
Calibrating When Creating New Output Queues

The following assumes that you are setting up a new output queue for your printer. Refer to page 14-18 if the output queue exists already.

Refer to page 14-40 for details on automatic calibration with embedded measurement devices (e.g. Epson SpectroProofer).

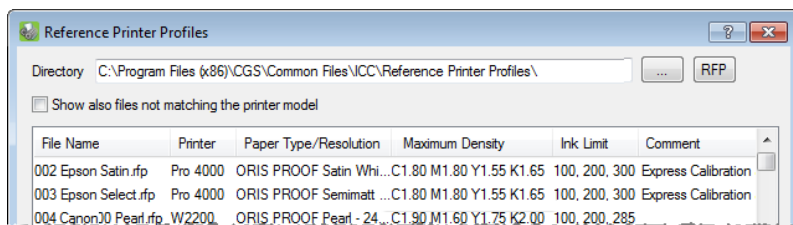
Step 1: Start Function

1. Click  to start the Setup Wizard. Follow the instructions on the screen. Always click NEXT to proceed with the next step.
2. Select your printer and enter a name for the new output queue.
3. Select YES, I WANT TO USE A REFERENCE PRINTER PROFILE.



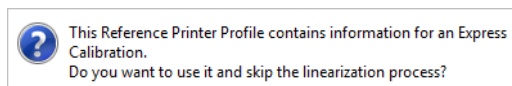
Step 2: Select Reference Printer Profile

1. Select an RFP file for your printer.



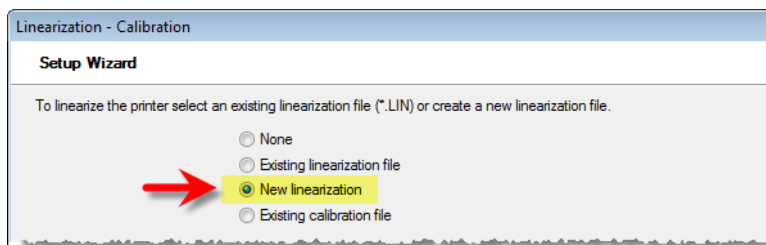
2. The RFP file may include standard linearization curves. If so, you are asked whether you want to apply this data and omit the linearization process. See also *Express Calibration* (page 14-4).

If you select YES, the process continues with **Step 5** (page 14-17).

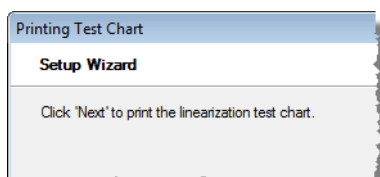


Step 3: Linearize

1. Select NEW LINEARIZATION.

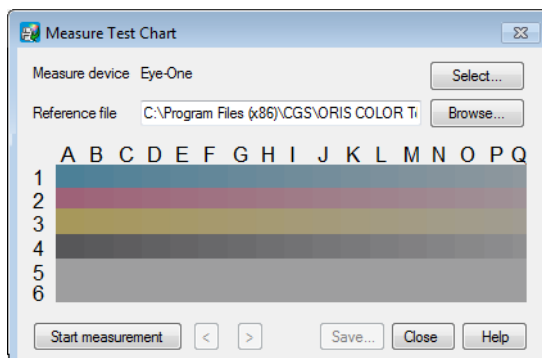


2. Select your measurement device and print the linearization test chart.



6-channel Linearization – Roland Printers, XG INKS (CMYKOrGr)

3. Measure the colors.



4. The maximum target densities for solid primary colors are displayed. The values have automatically been reduced to those defined in the RFP file. It is usually advisable to leave the default settings. Experienced users may want to click on DETAILS to fine-tune the linearization process and to check for possible measurement errors.

Set the maximum target densities	RFP	Measurement	
Cyan	2.33	2.41	2.33
Magenta	1.75	1.87	1.75
Yellow	1.74	1.88	1.74
Black	2.23	2.41	2.23
Orange	1.75	1.85	1.75
Green	1.51	1.58	1.51

4-channel Linearization – Other Printers or Ink Sets

- The LINEARIZATION BY DENSITIES dialog opens. Click the MEASURE PRINTED COLOR PATCHES button.

Color %	Target C	Meas. C	Target M	Meas. M	Target Y	Meas. Y	Target K	Meas. K
0.	0.	0.	0.	0.	0.	0.	0.	0.

- Click OK, NEXT to start measuring the density values of the linearization test chart. Click **OK** when the measuring process has completed.

iCColor

Measuring "Color 21 Step iCColor"

Please insert chart into the measuring device.
Measuring...

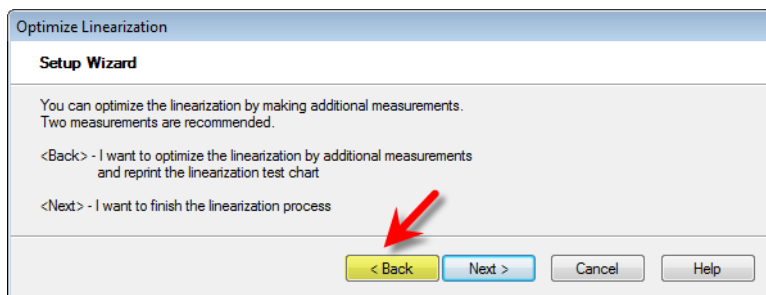
- The target densities for solid colors (displayed under USER DEFINED) are set automatically to those defined in the RFP file.

Max. density

☐ From measurements
 ☒ User defined

C 2.	M 2.	Y 2.	K 2.
C 1.78	M 1.78	Y 1.18	K 1.38

- Inspect the density values. You will need to optimize the linearization if the actual and target values deviate by more than 0.02 units.
- Click **OK** to close the LINEARIZATION BY DENSITIES dialog.
The program creates a linearization file (*.lin) in the path ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\LIN\\.
- Click **BACK** if you need to optimize the linearization file. Print and measure the test chart again as described above.

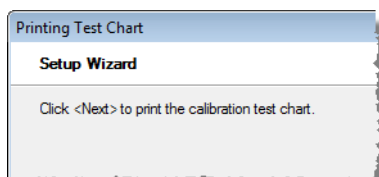


Step 4: Ink Limiting

Ink limiting is done automatically without any user interaction, because the values stored in the reference printer profile (RFP file) are applied.

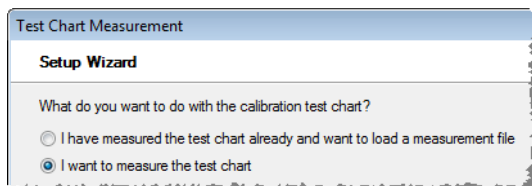
Step 5: Calibrate Iteratively

1. Select the measurement device. This is only required if you have omitted the linearization process (express calibration).
2. Print the calibration test chart.

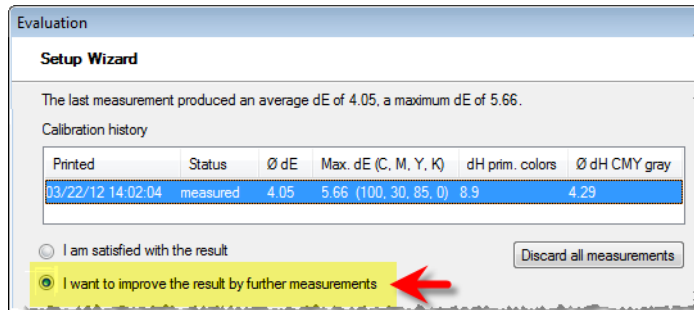


This dialog also allows you to linearize the metallic silver and white ink channel when using printers that support these types of ink.

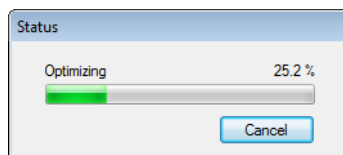
3. Measure the colors.



4. Look at the color deviations indicated in the dialog. Usually the program automatically selects I WANT TO IMPROVE THE RESULT... if the calibration needs to be optimized.



5. Wait until the calibration file has been optimized.



6. Print and measure the test chart again, then evaluate the result.

Repeat these steps until the color deviations are small enough. The program automatically enables I AM SATISFIED WITH THE RESULT when this has been achieved.

A calibration file (*.cal) is created in the directory ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\PCF\\.

7. You can proceed with the color-matching process now.

Calibrating When Modifying Output Queues

The following assumes that an output queue exists already for your printer. Refer to page 14-13 if you want to create a new output queue.

Step 1: Start Function

1. Select the output queue, then click .
2. Select the CALIBRATION tab.
3. Select the TABLE option.

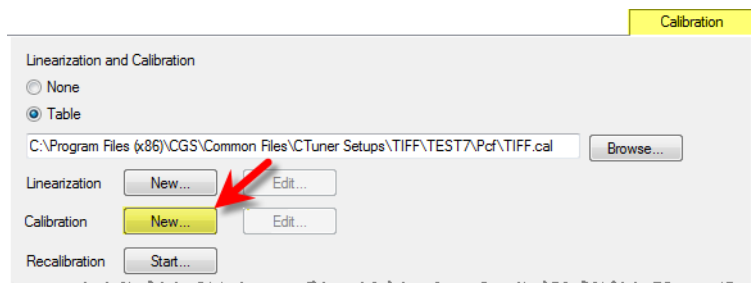
Note: You can also click  to open the CALIBRATION tab when the output queue is selected.

Note: You should not calibrate the printer for individual print *jobs* if scatter proofing is enabled. This will cause unpredictable results. The calibration

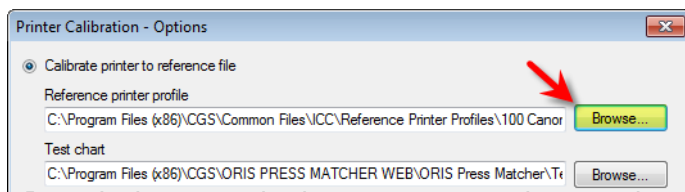
file created for one of these jobs will be applied to all jobs on the scatter proof form. Calibrate the entire print *queue* if scatter proofing is used.

Step 2: Get Maximum Densities from RFP File

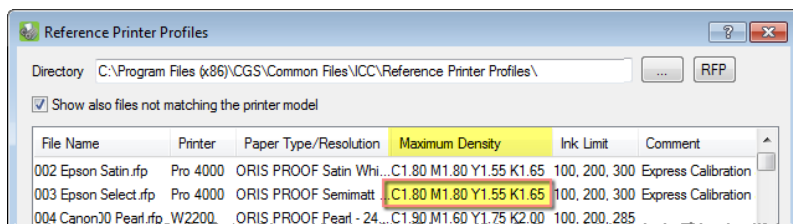
1. Click the NEW button next to CALIBRATION.



2. Click BROWSE and select an RFP file for your printer.



3. Note down the MAXIMUM DENSITY values. You will need these values for the linearization process.



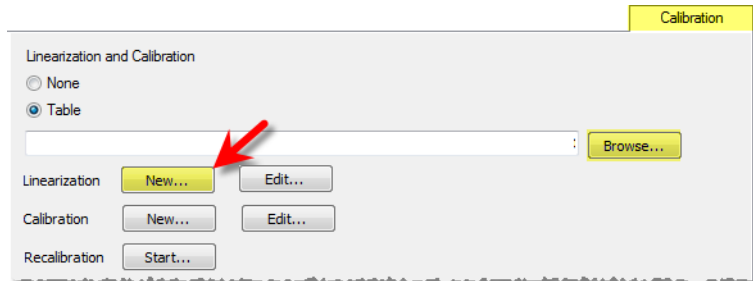
4. Select CANCEL to close the dialog.

Step 3: Linearize

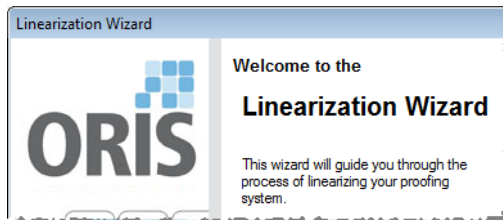
6-channel Linearization – Roland Printers, XG INKS (CMYKOrGr)

1. Click the NEW button next to LINEARIZATION.

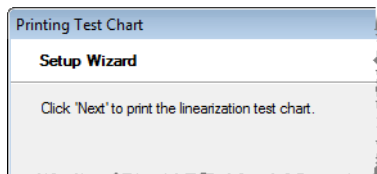
Click BROWSE to select the calibration file (*.cal) if the printer has been calibrated already. This may be the case when the printer is used for simulating multiple targets (see page 14-8).

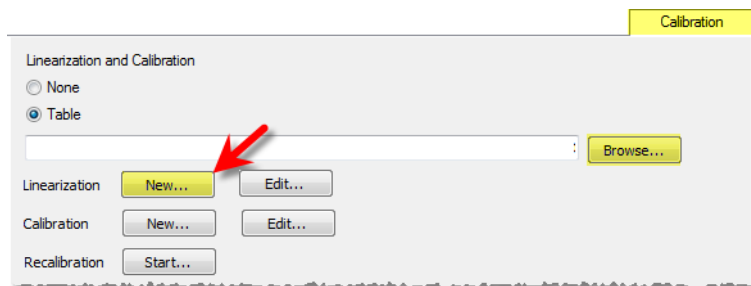


2. The Linearization Wizard appears.

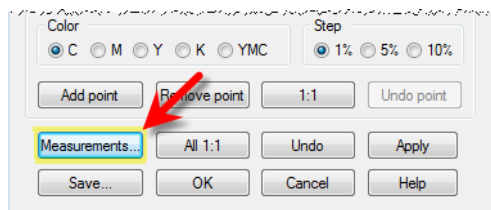


3. Select your measurement device and print the linearization test chart.

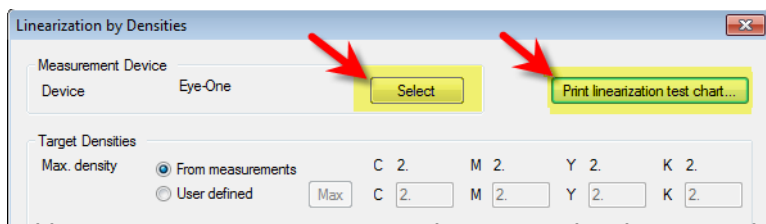




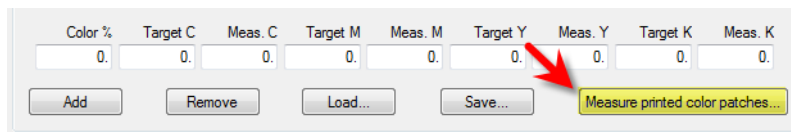
2. The LINEARIZATION dialog appears. Click the MEASUREMENTS button.



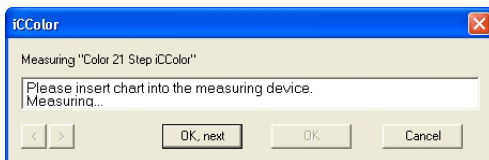
3. The LINEARIZATION BY DENSITIES dialog opens. Click the PRINT LINEARIZATION TEST CHART button to print a test chart.



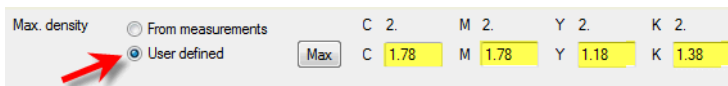
4. Click SELECT and choose the measurement device.
5. Click the MEASURE PRINTED COLOR PATCHES button.



6. Click OK, NEXT to start measuring the density values of the linearization test chart. Click **OK** when the measuring process has completed.



7. Select **USER DEFINED** and enter the maximum target densities you have noted down (the values from the RFP file).

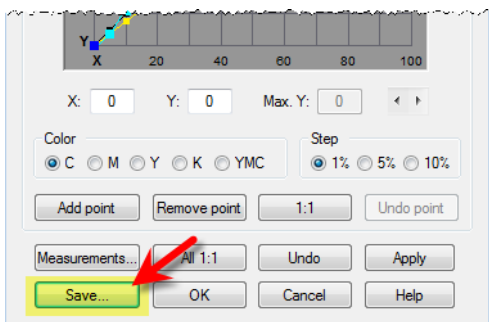


8. Inspect the density values. You will need to optimize the linearization if the actual and target values deviate by more than 0.02 units.
9. Click **OK** to close the **LINEARIZATION BY DENSITIES** dialog.

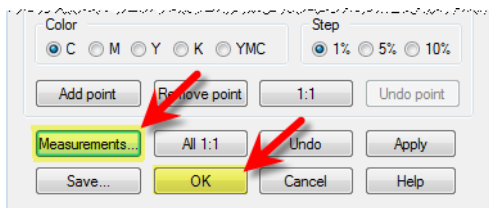
Gradation curves are created and appear in the **LINEARIZATION** dialog.

10. Click **SAVE** to save the gradation curves as a linearization file.

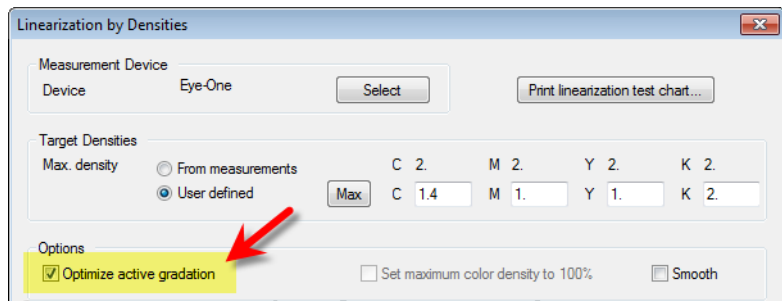
Enter a file name (*.lin) and make sure to use the path ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\LIN\\.



11. If you need to optimize the linearization file, relick the **MEASUREMENTS** button. Otherwise click **OK** to close the dialog.



12. To optimize the linearization file, enable the option **OPTIMIZE ACTIVE GRADATION**. Then print and measure the test chart as described above. When finished, click **OK** to close the dialog.



13. Click SAVE to save the optimized linearization file.

14. Click OK to close the LINEARIZATION dialog.

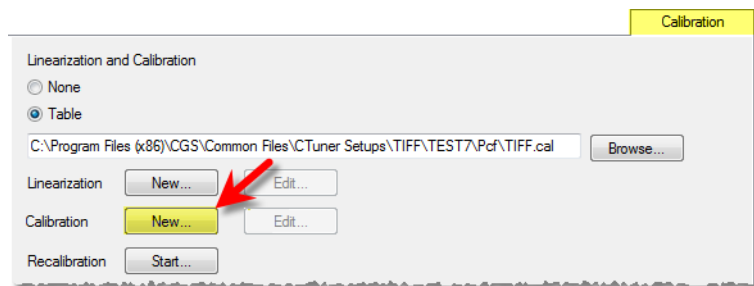
Step 4: Ink Limiting

Ink limiting is done automatically without any user interaction, because the values stored in the reference printer profile (RFP file) are applied.

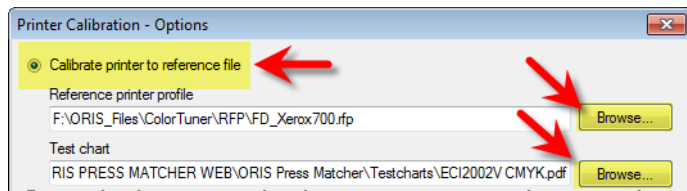
These default values can be modified later, if required.

Step 5: Select RFP File and Test Chart

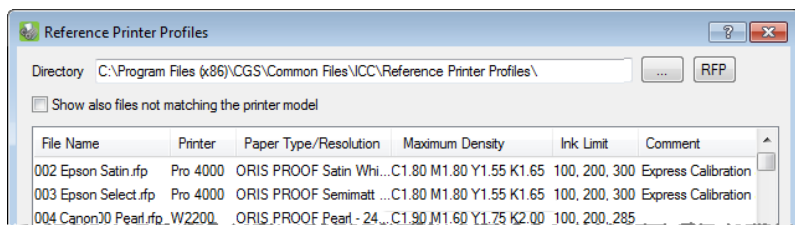
1. Click the NEW button next to CALIBRATION.



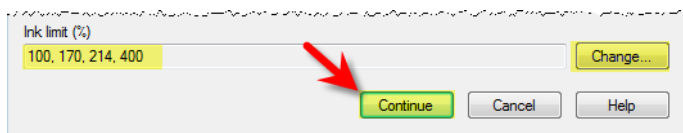
2. Select CALIBRATE PRINTER TO REFERENCE FILE.



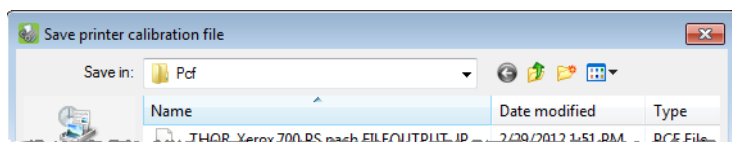
3. Click BROWSE and select an RFP file for your printer.



4. Click BROWSE and select a test chart. We recommend ECI2002.
5. The ink limits are automatically set to the values stored in the RFP file. Click CHANGE if you would like to modify these settings.
6. Click CONTINUE to start the calibration wizard.

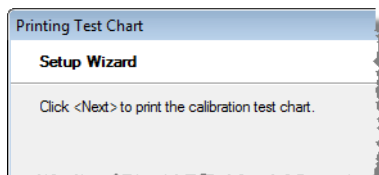


7. You are requested to save the settings to a *printer calibration file*. The default name is <printer> to <reference file>.pcf. We recommend to save this file under ... \Program Files\CGS\Common Files\CTuner Setups\<printer>\<queue>\PCF\.



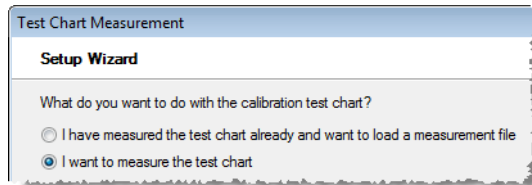
Step 6: Calibrate Iteratively

1. Print the calibration test chart.

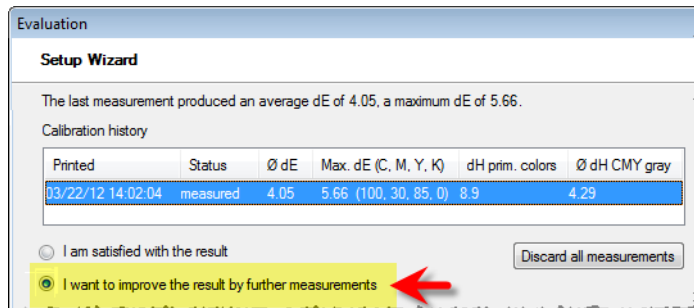


This dialog also allows you to linearize the metallic silver and white ink channel when using printers that support these types of ink.

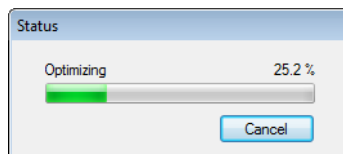
2. Measure the colors.



3. Look at the color deviations indicated in the dialog. Usually the program automatically selects I WANT TO IMPROVE THE RESULT... if the calibration needs to be optimized.



4. Wait until the calibration file has been optimized.



5. Print and measure the test chart again, then evaluate the result.
Repeat these steps until the color deviations are small enough. The program automatically enables I AM SATISFIED WITH THE RESULT when this has been achieved.

A calibration file (*.cal) is created in the directory ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\PCF\\.

6. You can proceed with the color-matching process now.

Linearizing and Setting Ink Limits

The following explains step by step how to calibrate your printer without performing the iterative printer calibration process. This method is faster, but usually not recommended (see page 14-6). The following steps are performed:

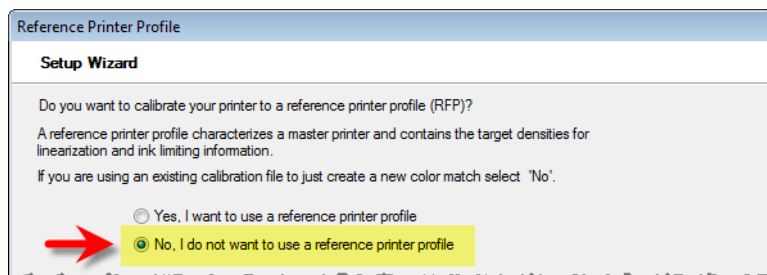
- Linearization (can be optimized iteratively)
- Reducing ink coverage (ink limiting)

Linearizing When Creating New Output Queues

The following assumes that you are setting up a new output queue for your printer. Refer to page 14-30 if the output queue exists already.

Step 1: Start Function

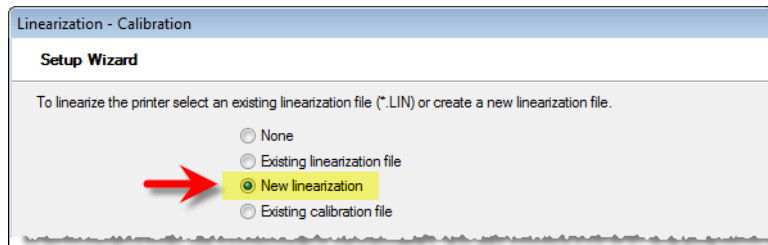
1. Click  to start the Setup Wizard. Follow the instructions on the screen. Always click NEXT to proceed with the next step.
2. Select your printer and enter a name for the new output queue.
3. Choose not to use an RFP file.



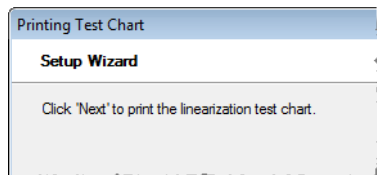
Step 2: Linearize

6-channel Linearization – Roland Printers, XG INKS (CMYKOrGr)

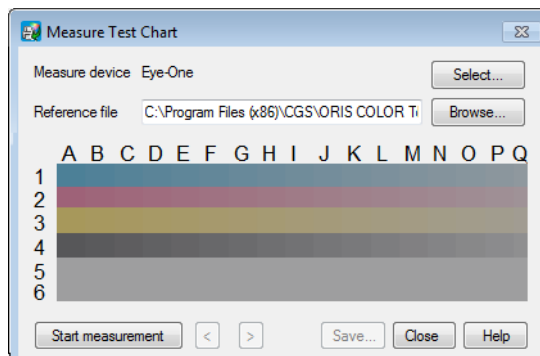
1. Select NEW LINEARIZATION.



2. Select your measurement device and print the linearization test chart.



3. Measure the colors.

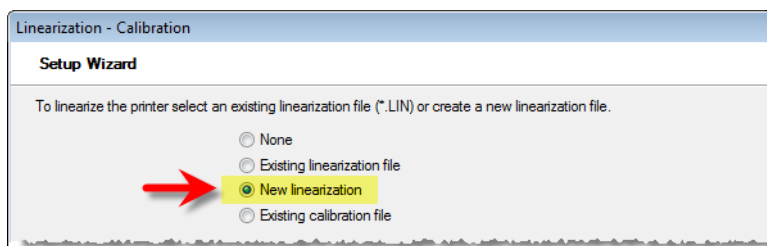


4. Reduce the maximum target densities to be used for solid primary colors. Make sure these values are at least 0.15–0.20 units higher than those achieved in the printing process to be simulated.
Experienced users may want to click on DETAILS to fine-tune the linearization process and to check for possible measurement errors.

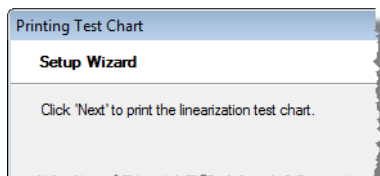
Set the maximum target densities	RFP	Measurement	
Cyan	2.	2.41	2.23
Magenta	2.	1.87	1.25
Yellow	2.	1.88	1.51
Black	2.	2.41	2.11
Orange	2.	1.85	1.71
Green	2.	1.58	1.51
		Use	Use
		Details...	

4-channel Linearization – Other Printers or Ink Sets

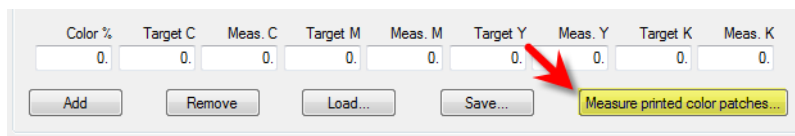
1. Select NEW LINEARIZATION.



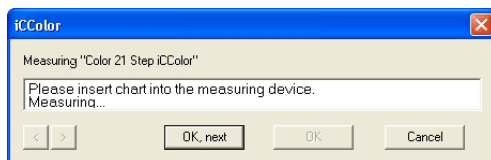
2. Select your measurement device and print the linearization test chart.



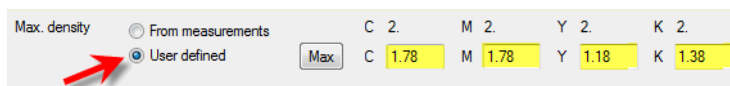
3. The LINEARIZATION BY DENSITIES dialog opens. Click the MEASURE PRINTED COLOR PATCHES button.



4. Click OK, NEXT to start measuring the density values of the linearization test chart. Click **OK** when the measuring process has completed.

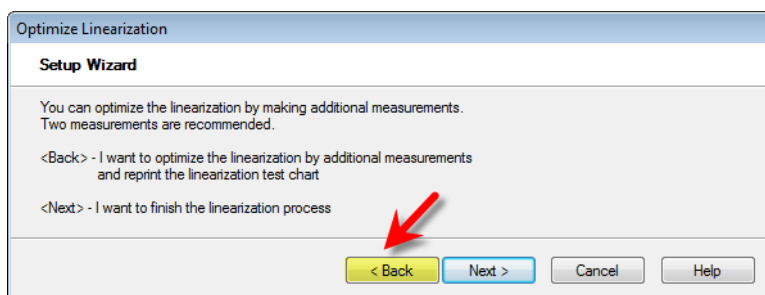


5. Select USER DEFINED.
6. Reduce the maximum target densities to be used for solid primary colors. Make sure these values are at least 0.15–0.20 units higher than those achieved in the printing process to be simulated.



Max. density	C 2.	M 2.	Y 2.	K 2.
☒ User defined	1.78	1.78	1.18	1.38

7. Inspect the density values. You will need to optimize the linearization if the actual and target values deviate by more than 0.02 units.
8. Click **OK** to close the LINEARIZATION BY DENSITIES dialog.
The program creates a linearization file (*.lin) in the path ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\LIN\\.
9. Click **BACK** if you need to optimize the linearization file. Print and measure the test chart again as described above.



Optimize Linearization

Setup Wizard

You can optimize the linearization by making additional measurements. Two measurements are recommended.

<Back> - I want to optimize the linearization by additional measurements and reprint the linearization test chart

<Next> - I want to finish the linearization process

< Back Next > Cancel Help

Step 3: Ink Limiting

Click **NEXT** to proceed with ink limiting (see page 14-35).

Linearizing When Modifying Output Queues

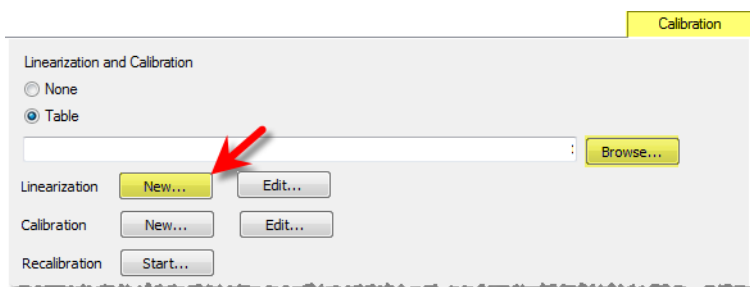
The following assumes that an output queue exists already for your printer. Refer to page 14-27 if you want to create a new output queue.

Step 1: Linearization

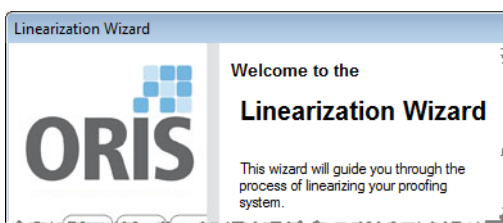
6-channel Linearization – Roland Printers, XG INKS (CMYKOrGr)

1. Select the output queue, then click .
2. Select the **CALIBRATION** tab.
3. Select the **TABLE** option.

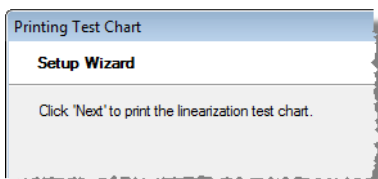
4. Click the NEW button next to LINEARIZATION.



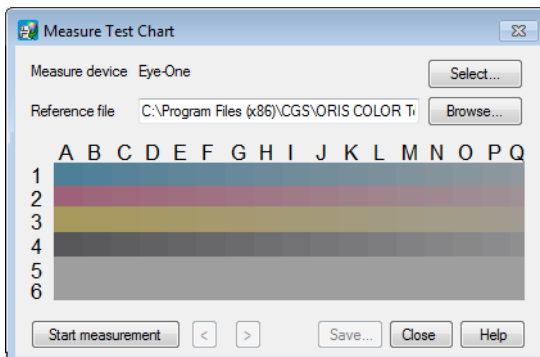
5. The Linearization Wizard appears.



6. Select your measurement device and print the linearization test chart.



7. Measure the colors.

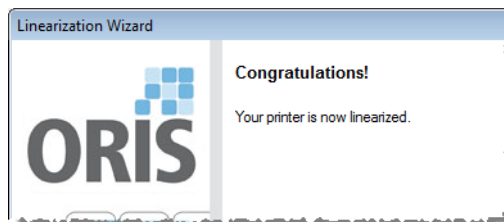


8. Reduce the maximum target densities to be used for solid primary colors. Make sure these values are at least 0.15–0.20 units higher than those achieved in the printing process to be simulated.

Experienced users may want to click on DETAILS to fine-tune the linearization process and to check for possible measurement errors.

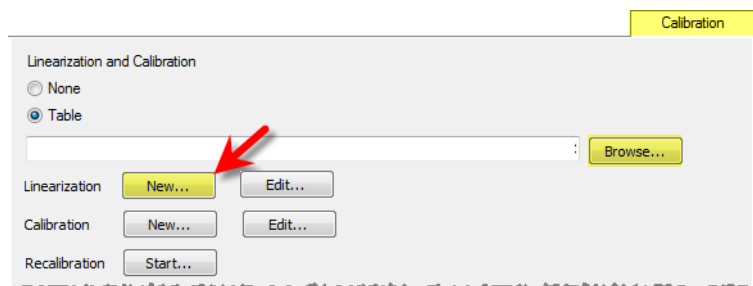
Set the maximum target densities	RFP	Measurement	
Cyan	2.	2.41	2.23
Magenta	2.	1.87	1.25
Yellow	2.	1.88	1.51
Black	2.	2.41	2.11
Orange	2.	1.85	1.71
Green	2.	1.58	1.51
			Use Use Details...

9. The Linearization Wizard completes.

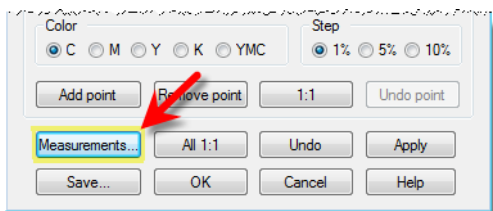


4-channel Linearization – Other Printers or Ink Sets

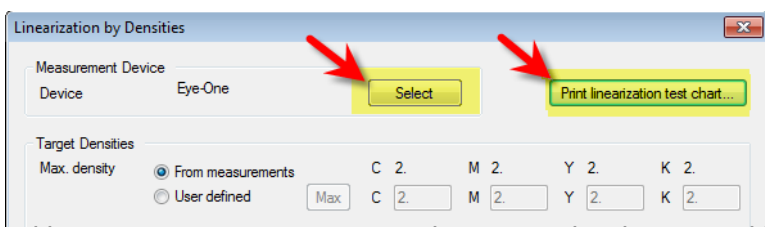
1. Select the output queue, then click .
2. Select the CALIBRATION tab.
3. Select the TABLE option.
4. Click the NEW button next to LINEARIZATION.



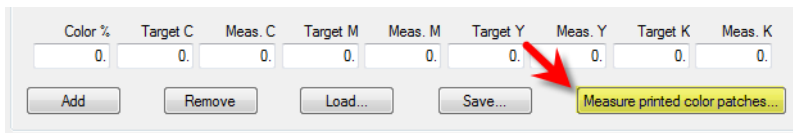
5. The LINEARIZATION dialog appears. Click the MEASUREMENTS button.



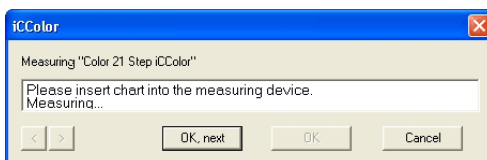
6. The LINEARIZATION BY DENSITIES dialog opens. Click the PRINT LINEARIZATION TEST CHART button to print a test chart.



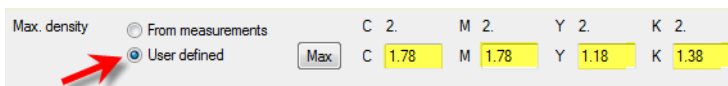
7. Click SELECT and choose the measurement device.
8. Click the MEASURE PRINTED COLOR PATCHES button.



9. Click OK, NEXT to start measuring the density values of the linearization test chart. Click OK when the measuring process has completed.



10. Select USER DEFINED.
11. Reduce the maximum target densities to be used for solid primary colors. Make sure these values are at least 0.15–0.20 units higher than those achieved in the printing process to be simulated.



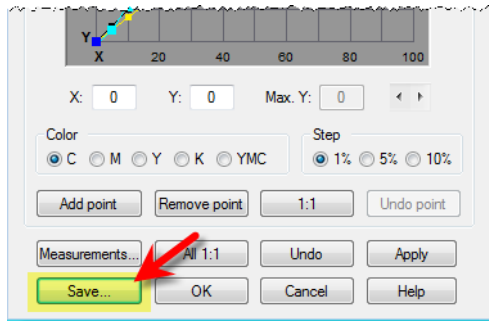
12. Inspect the density values. You will need to optimize the linearization if the actual and target values deviate by more than 0.02 units.

13. Click **OK** to close the LINEARIZATION BY DENSITIES dialog.

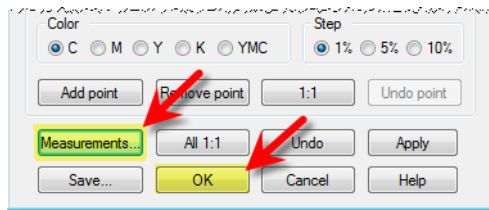
Gradation curves are created and appear in the LINEARIZATION dialog.

14. Click **SAVE** to save the gradation curves as a linearization file.

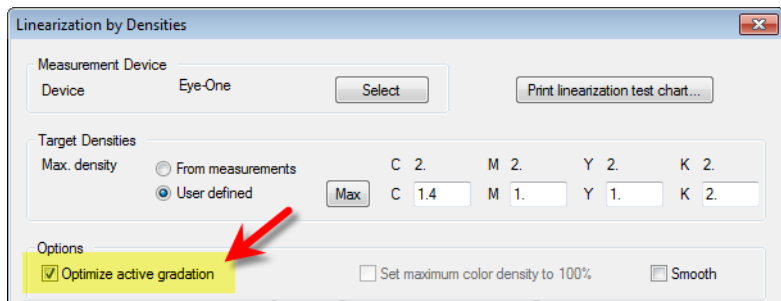
Enter a file name (*.lin) and make sure to use the path ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\LIN\\.



15. If you need to optimize the linearization file, relick the MEASUREMENTS button. Otherwise click **OK** to close the dialog.



16. To optimize the linearization file, enable the option OPTIMIZE ACTIVE GRADATION. Then print and measure the test chart as described above. When finished, click **OK** to close the dialog.

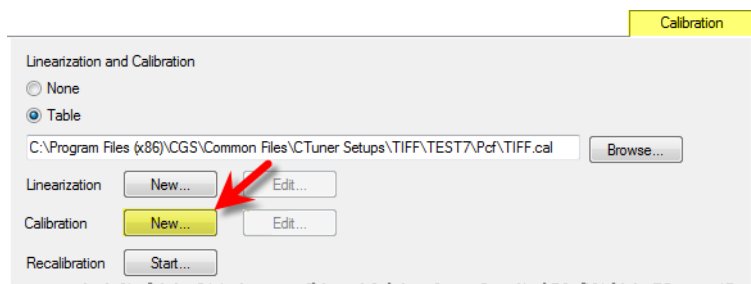


17. Click **SAVE** to save the optimized linearization file.

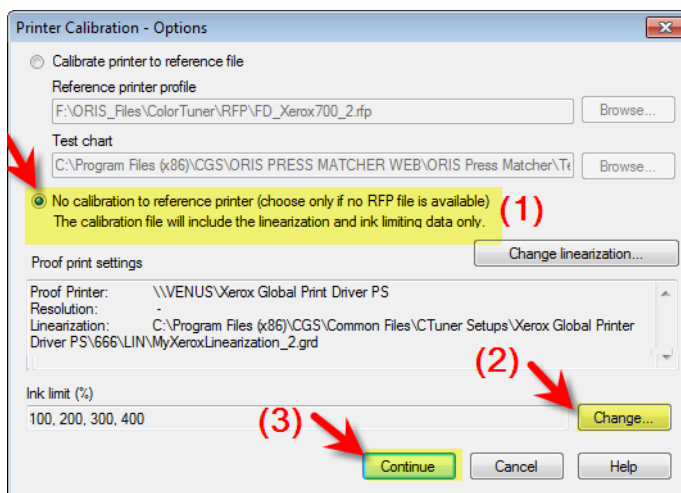
18. Click **OK** to close the LINEARIZATION dialog.

Step 2: Ink Limiting

1. Click the NEW button next to CALIBRATION.

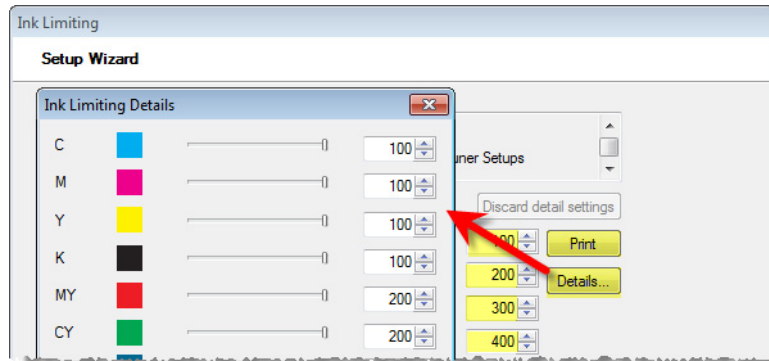


2. Select NO CALIBRATION TO REFERENCE PRINTER.
3. Click the CHANGE button next to INK LIMIT.
4. Perform the steps described under *How to Set Ink Limits* (see below). Click CONTINUE when you have completed the ink limiting process.
5. Now you can proceed with the color matching process.



How to Set Ink Limits

1. Click the PRINT button to output the ink limit test chart.
2. Reduce the ink limits if the paper remains wet in dark areas where several inks are printed on top of each other.
Click DETAILS if you want to specify separate ink limits for particular combinations of ink channels.



3. Reprint the test chart and modify the ink limits again. Repeat this process as often as required.

This will create a calibration file (*.cal) that includes the linearization and ink limiting data only. This file resides in the path ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\PCF\\.

Recalibrating

The Recalibration Wizard resets the printer to its original state when its color reproduction characteristics have changed. This restores the validity of the color table or ICC profiles defining the color simulation.

You should recalibrate your printer regularly. We recommend to repeat both the linearization and iterative calibration process.

If a printer with an embedded measurement device (e.g. Epson Spectro-Proofer) is used, the relinearization and recalibration process run fully automatically without any user interaction. You can also schedule the processes to run automatically at regular intervals.

Jobs are printed directly to the printer and not via the Windows print spooler, if an embedded measurement device is used.

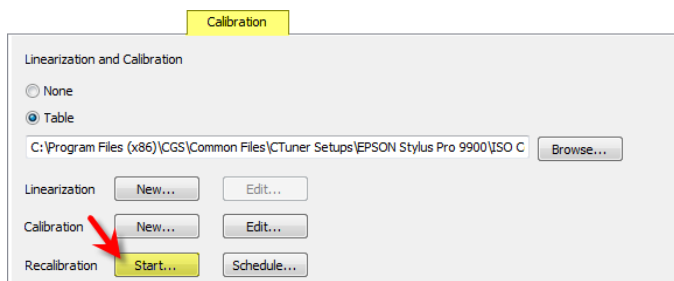
See also page 1-18.

Manual Recalibration

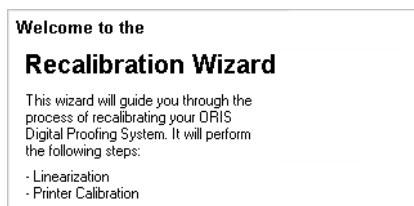
Step 1: Start Recalibration Wizard

1. Select the output queue (see page 16-1).
2. Click on  or select FILE | SETTINGS.

3. Select the CALIBRATION tab.
4. Click the START button next to RECALIBRATION.



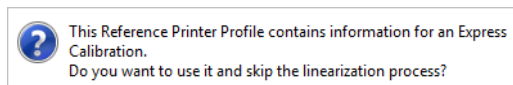
5. The wizard's welcome screen appears. You will be guided step by step through the linearization and calibration process.
- In each wizard screen, click NEXT to proceed with the next step. Click the HELP button if you need more information.



Step 2: Linearization

The Recalibration Wizard will guide you through the following steps:

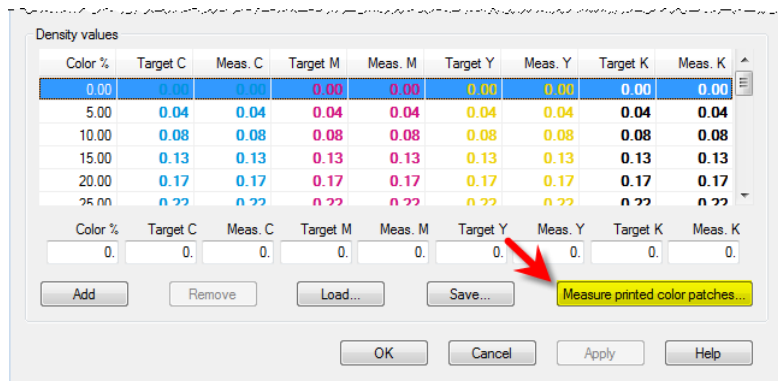
1. If the printer had been express-calibrated (using standard linearization data), you are asked whether you want to omit the linearization process. If you answer YES, proceed with **Step 3** (page 14-39).



2. Select the measurement device connected to your computer.
We recommend to use the same measurement device that was used when the printer was linearized and calibrated for the first time.
3. Print the linearization test chart.
4. Measure the density values. The details are explained below.
5. Optimize the linearization file, if required. The density measurements should not deviate from the target values by more than 0.02 units.

Note: The procedure is slightly different when using Roland printers with XG INKS (CMYK+orange+green). Refer to page 14-15 for more details.

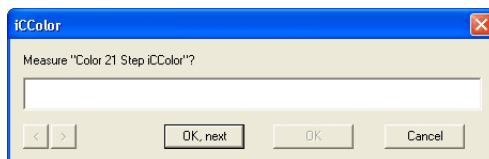
Fig. 14-11 'Linearization by Densities' Dialog



Linearization via Densitometric Measurements

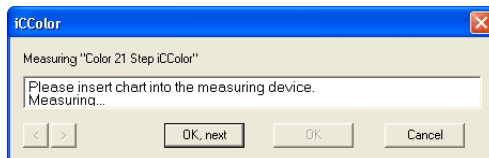
The Recalibration Wizard opens the LINEARIZATION BY DENSITIES dialog (see Fig. 14-11). Use it to create a linearization file by measuring density.

1. Click the MEASURE PRINTED COLOR PATCHES button.

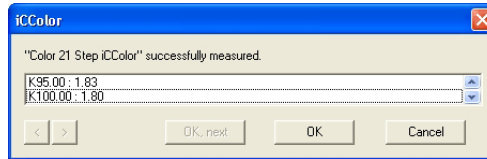


2. Click OK, NEXT to start the measuring process and follow the instructions on the screen. The measurements are transmitted directly from the spectrophotometer to ORIS Flex Pack/Web.

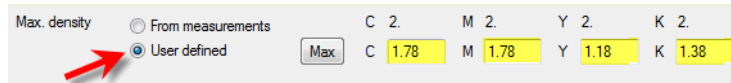
Note: If no measurement device is connected, you can enter the values into the box that appears at the top right. Click OK, NEXT to select the next CMYK value. Click < or > to step through all CMYK values.



3. Select **OK** to close the dialog when the measuring process has completed. You are back in the LINEARIZATION BY DENSITIES dialog.



4. The solid densities are automatically reduced to those defined by the *reference printer profile* (RFP file). These values are displayed under USER DEFINED.



5. Click **OK** to close the LINEARIZATION BY DENSITIES dialog. A linearization file (*.lin) will be created.

We recommend to save the file under ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\LIN\\. The default file name is <queue>_<printer>.lin.

Step 3: Iterative Printer Calibration

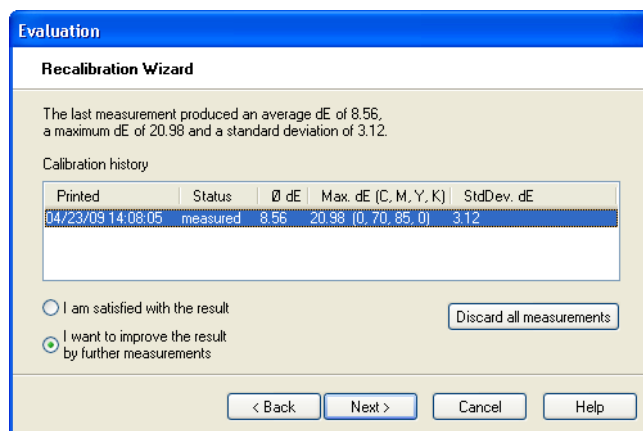
The Recalibration Wizard will guide you through the following steps:

1. Print the calibration test chart.
2. Measure the printed test chart.

Save the measurement file under ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\Measurement\\. This is usually the default save location when using a measurement device connected to the computer.

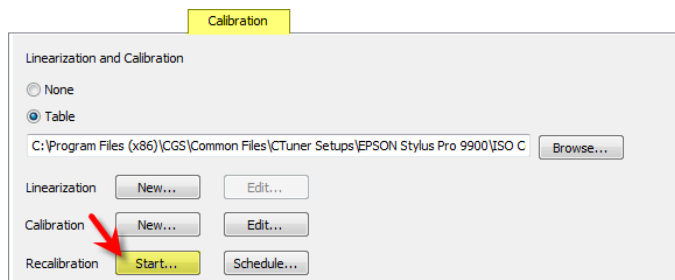
3. Optimize the calibration file, if required.
4. Repeat these steps until the color deviations are small enough. The program automatically enables I AM SATISFIED WITH THE RESULT when this has been achieved.

Fig. 14-12 Recalibration Wizard – Evaluation



Automatic Recalibration with Embedded Spectrophotometer

1. Select the output queue (see page 16-1).
2. Click on  or select FILE | SETTINGS.
3. Select the CALIBRATION tab.
4. Click the START button next to RECALIBRATION.



5. The wizard's welcome screen appears. You will be guided step by step through the linearization and calibration process.
- In each wizard screen, click NEXT to proceed with the next step. Click the HELP button if you need more information.

Welcome to the

Recalibration Wizard

This wizard will guide you through the process of recalibrating your ORIS Digital Proofing System. It will perform the following steps:

- Linearization
- Printer Calibration

6. Specify the stop criteria. This is the degree to which the calibration file should be optimized, i.e. the average delta E.

Maximum number of iterations:	5
Average dE better than:	1.
Maximum dE better than:	5.

7. Click NEXT to start the calibration process.

The process will run fully automatically and consists of several steps. Each step consists of printing a test chart, measuring it with the embedded device and optimizing the calibration file (*.cal).

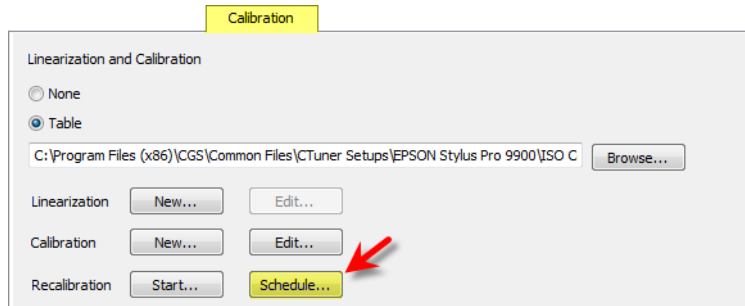
Measurements						
Printed	Status	Δ dE	Max. dE (C, M, Y, K)	StdDev. dE	Δ dE worst 1	
04/11/07 14:12:00	calculated	3.58	7.967 (0, 70, 100, 0)	1.545	6.064	
04/11/07 17:49:09	measured	0.98	4.181 (70, 0, 70, 0)	0.572	2.186	

8. The process completes when the FINISH button appears.

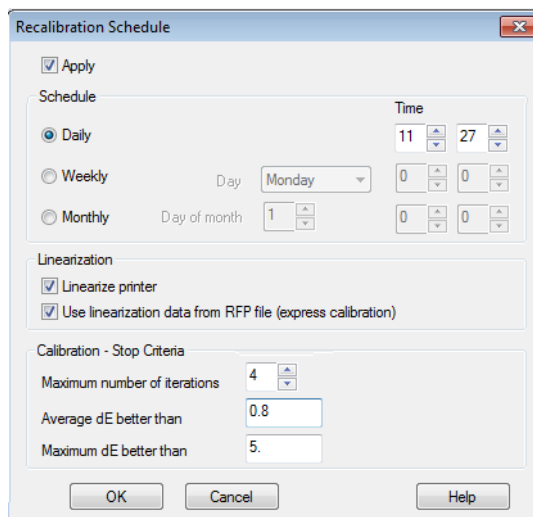
Scheduled Automatic Recalibration

How to set up a printer with an embedded measurement device to relinearize and then recalibrate itself automatically at regular intervals:

1. Select the output queue (see page 16-1).
2. Click . Or click  and select the CALIBRATION tab.
3. Click the SCHEDULE button next to RECALIBRATION.



4. Click on APPLY at the top of the dialog.
5. Specify the calibration interval and the starting time.
6. Decide whether the printer should be linearized prior to being calibrated (recommended).
7. Specify the STOP CRITERIA (number of iterations, delta E).



8. Click **OK**.

A recalibration schedule will be disabled automatically when you export and then import an output queue that has this feature enabled.

The automatic recalibration process will be omitted if the computer is down or switched off at the scheduled time. The missed recalibration process will not start automatically when the computer is running again.

Calibration Status

Output queues are locked automatically during the calibration process, i.e. they do not process any incoming files. This is done to prevent output from a queue that is in an undefined state.

In the list of output queues, a yellow vertical bar indicates the locked state and a yellow background color the running calibration process.

Printers	Jobs
 Roland VS-540 (1)	(8)
ISO Coated V2 (0/5)	
ISO Coated (2)	(7/10)

(1)
Printer is being calibrated.

(2)
Queue is being calibrated.
Queue is locked.

» RELATED TOPICS:

- QUEUE STATUS INFORMATION (PAGE 16-3)
- STATUS 'CALIBRATING' AND 'LOCKED' (PAGE 16-5)

15 Processing and Printing Jobs

To process or print jobs, send the jobs to an output queue using one of the following methods. Make sure the output queue is active (started).

» RELATED TOPICS:

- STARTING AND STOPPING OUTPUT QUEUES (PAGE 16-5)
- JOB STATUS (PAGE 16-10)
- CONTROLLING JOB PROCESSING (PAGE 16-11)
- HALFTONE PROOFING (PAGE 18-1)
- PRINTING MULTI-FILE GRAYSCALE JOBS (PAGE 26-6)

Output via Watched Folders

The Setup Wizard  creates a *watched folder* for every queue. This folder is monitored by the output queue. Jobs added to a watched folder are output automatically using the settings of the related output queue. The jobs are then deleted automatically from the watched folder.

Share the watched folder on the network.

Note: Watched folders ignore hidden files and file names beginning with a dot.
See also *Printing Halftone Data via Watched Folders* (page 18-6).

Settings for Watched Folders

Subdirectory Scanning

By default, the subdirectories of a watched folder are also scanned for files to be processed. If this is not what you want, click  and disable the SCAN SUBDIRECTORIES option on the WORKFLOW tab.

Note: The directory structure will be flattened in the output queue.

Waiting Time

Files added to a watched folder should remain unchanged for a moment before they are processed by ORIS Flex Pack//Web. This makes sure they are not processed while still being modified by another application.

The default waiting time is 30 seconds. A shorter waiting time may be feasible, depending on your workflow. If you are sure files are not created directly in any watched folder, you can set the waiting time to **5** seconds, for example.

To do so, select FILE | PREFERENCES, then click on the WATCHED FOLDERS tab.

Remote Access

Jobs printed via virtual PS printers (see page 15-6) and watched folders may not be visible to certain users. If this occurs, select FILE | USER ACCOUNTS, click on the user name and enable the option THIS USER CAN SEE... THE JOBS OF ALL OTHER USERS (see also page 17-1).

Macintosh Folders

Setting up watched folders on a Macintosh computer requires a good understanding of file and folder sharing between Macintosh and Windows. This setup should be done by an experienced network specialist.

Printing Multi-File Formats

Watched folders also allow you to print jobs that consist of more than one file, such as TIFF/IT, Scitex Handshake or DCS documents.

All files must be added to the watched folder within the specified waiting time. Otherwise the files will not be combined into one document, but printed as separate jobs. If you cannot ensure this, we recommend to add the page description file (*.fp, *.pg, *.assg, *.eps) first.

The same is true for the Fuji FinalProof format. The TIFF files are combined correctly if they get into the watched folder within the waiting time. Otherwise TIFF files arriving before the SOJ file or after the EOJ file may not become part of the job. To be on the safe side, you should add Fuji FinalProof files in the following order:

1. SOJ file
2. TIF files
3. EOJ file

Changing Save Location

Watched folders reside in a subdirectory of ...\\Watched Folders\\<printer>, if not specified otherwise during queue setup. They have the same name as the related output queue.

How to change the save location of a watched folder after queue setup:

1. Select the output queue (see page 16-1).
2. Click the  button.
3. Select the WORKFLOW tab.
4. Click BROWSE (next to WATCHED FOLDER) and select another folder.

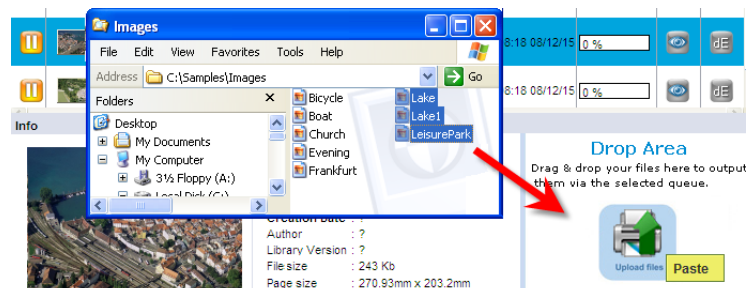
If a virtual PostScript printer is associated with this output queue, the destination directory of this printer will be adjusted accordingly.

Output via Drop Area

Files dragged onto ORIS Flex Pack//Web's DROP AREA will be output automatically using the settings defined for the selected output queue. Alternatively, you can add files using 'copy and paste'.

You can also drag *folders* onto the DROP AREA. They are processed recursively, i.e. the jobs in all subfolders are output. Shortcuts to files or folders (*.lnk) are not resolved.

Fig. 15-1 Dragging Files onto the Drop Area



How to Use the Drop Area

1. In ORIS Flex Pack//Web, select the output queue (see page 16-1).
2. In Windows Explorer, select the files or folders to be processed.

All files of a multi-file document (e.g. TIFF/IT) must be selected and dragged to the DROP AREA in one go.

3. Keep the mouse button pressed and drag these elements onto the DROP AREA (see Fig. 15-1).

Alternative:

1. In Windows Explorer, press CTRL+C or right-click and select COPY from the context menu.
2. Right-click the DROP AREA and select PASTE from the context menu. Or click on the DROP AREA and press CTRL+V.

The DROP AREA provides information about the last upload operation for the current output queue:

- Number of files uploaded via the DROP AREA
- Number of jobs created from the uploaded files

Important Notes

File Size Restriction

You cannot upload more than 2047 MB of files at a time via the DROP AREA. Use watched folders if you need to upload more files at a time.

Identical File Names in Subdirectories

Files with identical names in a directory tree overwrite each other when uploaded via the DROP AREA.

Multi-File Jobs in Subdirectories

Directory trees with jobs consisting of multiple files (color separations) can only be processed correctly, if the job names are unique across the individual directories. Processing fails if there are two or more jobs with identical names in the directory tree.

Halftone dot proofing (SCREENDOT)

Make sure to upload all separation files *in one go*. Separation files that are uploaded separately will not be combined into a single job.

Single-File Output via Dialog

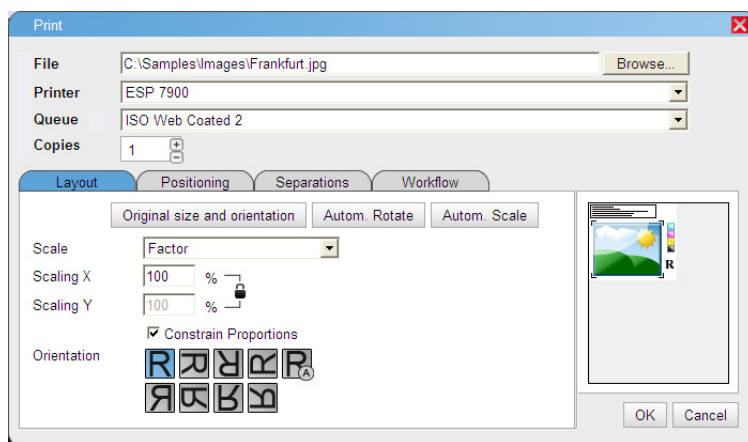
There is also a dialog which allows you to output a single file only. You can select an output queue and override some of its settings, e.g. scaling options. You can make additional settings such as certification requests.

1. Click on  to open the dialog.
2. Browse for the file to be processed. You can only select a single file. Documents with extremely long file names cannot be selected.
3. Select the printer, then select the output queue.
4. If required, change the queue settings or make additional settings.
5. Click **OK** to print the file.

Files exceeding 2047 MB in size cannot be output with this dialog.
Use watched folders for such files.

This dialog cannot be used for printing halftone data. 1-bit files are not combined into a job. They are printed separately in greyscales.

Fig. 15-2 Single Job Output via Dialog



Reprocessing Jobs

To print or output a job again:

1. Make sure the output queue and the job are active (have been started). Refer to page 16-5 and 16-11 for more details.
2. Select the job (see page 16-8).
3. Click on the  button.

The job will be output with the same settings as before, even if you have modified the settings of the job or output queue. To apply the modified settings, re-add the job to the output queue.

Output from Other Applications

Color-matched output can be created directly from any Windows or Macintosh application. This requires a virtual PostScript printer which must be shared on the network.

Virtual PostScript printers can be created as follows:

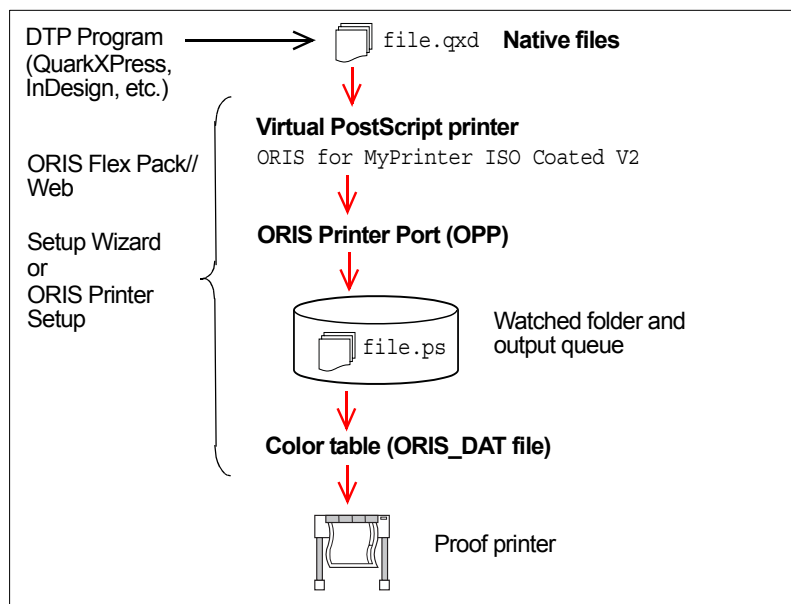
- Using the Setup Wizard (see page 13-4).
- Using the ORIS Printer Setup program (see below)

If documents are output on a virtual printer in DTP applications such as QuarkXPress or InDesign, the PostScript data is sent to a so-called ORIS Printer Port. This port writes the data to a user-defined directory. If this is a watched folder, the data is automatically RIPPed, color-matched and output as defined by the related output queue (see Fig. 15-3).

If images with spot colors are used, we recommend to select PostScript *Level 3* when printing the documents in the DTP application. This creates a more compact PostScript code than *Level 2* and thus avoids long output times in ORIS Flex Pack//Web.

- » RELATED TOPICS:
- CREATING OUTPUT QUEUES (PAGE 13-4)
 - OUTPUT VIA WATCHED FOLDERS (PAGE 15-1)

Fig. 15-3 Color-Matched Printing From DTP Applications



Creating Additional Virtual Printers

Use the ORIS Printer Setup program to create additional virtual PostScript printers. Select **START | ALL PROGRAMS | CGS | ORIS PRINTER SETUP** to start this program (see Fig. 15-4).

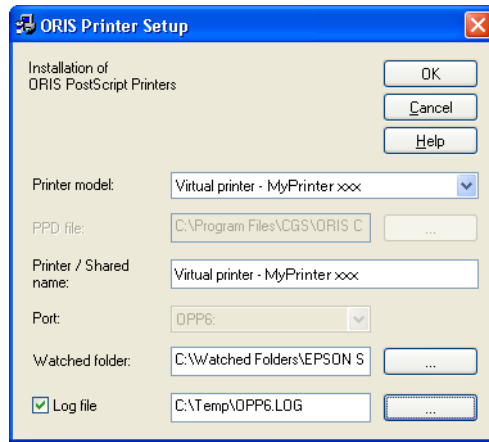
Set the options as explained below. Click on **HELP** for more details.

- **PRINTER MODEL**
Select the printer for which a virtual PS printer should be created.
The related PostScript Printer Description file (PPD) is assigned automatically. To assign another PPD file to the virtual printer, choose **SELECT PPD** and select the file using the **PPD FILE** option.
- **PRINTER/SHARED NAME**
Enter a name for the new virtual PostScript printer. It will be available under this name in other application programs.
- **WATCHED FOLDER**
Select a watched folder that was created using the Setup Wizard (see page 13-4). PostScript files sent by the ORIS Printer Port will be color-matched and output as defined by the related output queue.

Note:

You cannot create any watched folders here. The selected folder will only be monitored if the output queue has been set up accordingly.

Fig. 15-4 'ORIS Printer Setup' Dialog

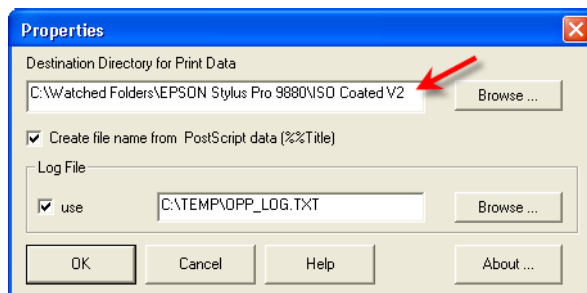


Redirecting Virtual Printers to Other Queues

The output of a virtual PostScript printer can be redirected to the output queue of another watched folder. Do this as follows:

1. Open the list of printers. You can rename the virtual printer here.
 - Windows 7: START | DEVICES AND PRINTERS
 - Windows Vista: START | CONTROL PANEL | HARDWARE AND SOUND | PRINTERS
 - Windows XP and Server 2008: START | PRINTERS AND FAXES
 - Windows 2003: START | SETTINGS | PRINTERS
2. Right-click on the virtual printer and select **PROPERTIES** from the context menu.
3. A dialog appears. Select the **PORTS** tab.
4. Click on **CONFIGURE PORT**. The dialog shown in Fig. 15-5 appears.
5. Click on **BROWSE** next to **DESTINATION DIRECTORY FOR PRINT DATA** and select the watched folder of another output queue. The ORIS Printer Port will send the PostScript data to this folder now.
6. Close all dialogs using **OK**.

Fig. 15-5 'Properties' Dialog



Job Output from Macintosh

Do the following if you want to output jobs from a Macintosh using one of ORIS Flex Pack//Web's virtual PostScript printers:

- Share the virtual PostScript printer on the network.
- Copy the printer's PPD file to the Macintosh.

PPD files for the supported printers are available under ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\PPD\\.

On the Macintosh, PPD files usually reside under .../Library/Printer/PPDs.

- Create a new Macintosh print queue for the virtual printer.
The following explains how to do this under Mac OS 10.6.

Making Virtual Printers Available on a Mac

The following explains how to make a virtual PostScript printer available on a Macintosh using Mac OS 10.6 (Snow Leopard).

1. Open SYSTEM PREFERENCES and click on PRINT & FAX (see Fig. 15-6).
2. In the PRINT & FAX dialog, click the + button to add a new print queue (see Fig. 15-7).
3. In the ADD PRINTER dialog, click the WINDOWS button and select the network domain and computer. The shared printers are listed on the right (see Fig. 15-8).
4. When selecting the computer you may be asked to enter the user name and password.

Prefix the user name with the domain or computer name, e.g.

domain1\jdoe. Save the password to your *keychain* (see Fig. 15-9).

5. Click the virtual printer, then open the PRINT USING list. Select OTHER from the menu, then browse for the printer's PPD file (see Fig. 15-8).
6. Click the ADD button. In the PRINT & FAX dialog, a new print queue appears for the virtual PostScript printer (see Fig. 15-10).
7. When printing the first job, you are asked to enter the user name and password again (see Fig. 15-9). We recommend to save the password to your *keychain*. Otherwise you have to enter it for every job.

Fig. 15-6 Mac OS 10.6: System Preferences

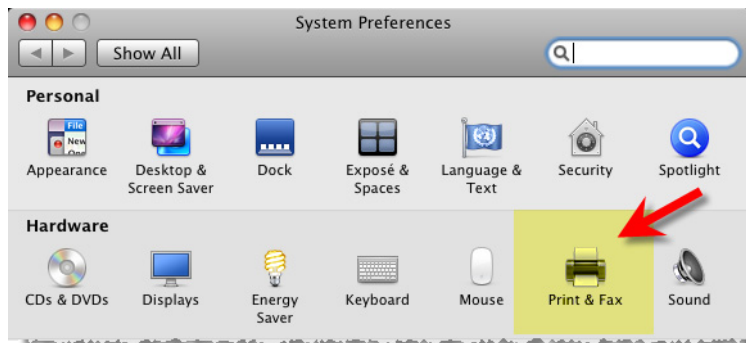


Fig. 15-7 Mac OS 10.6: Adding a Print Queue

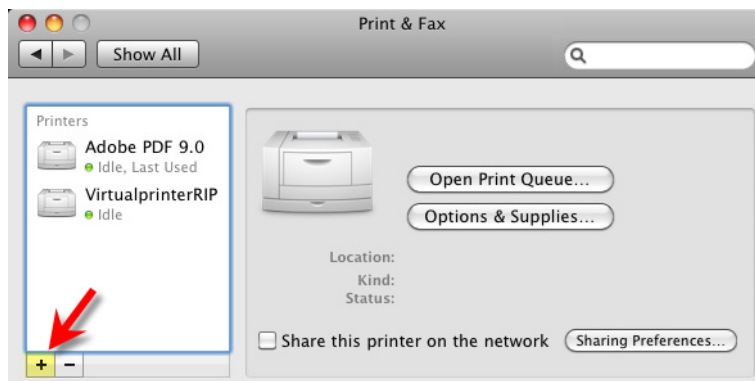


Fig. 15-8 Mac OS 10.6: Selecting a Printer

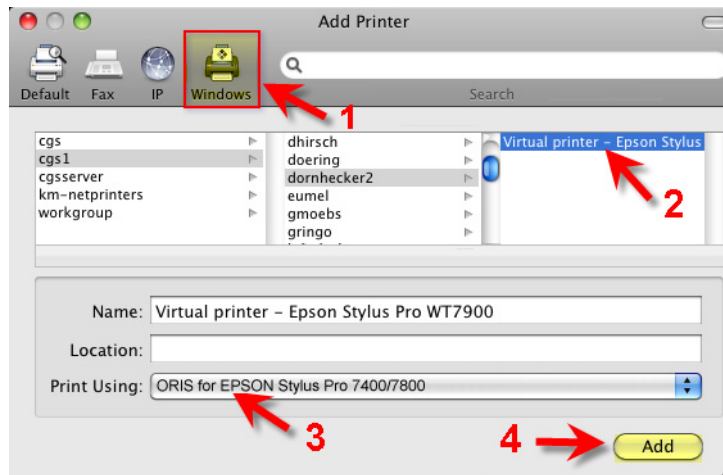


Fig. 15-9 Mac OS 10.6: Entering User Name and Password

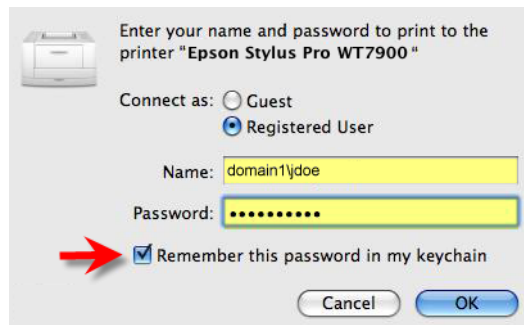
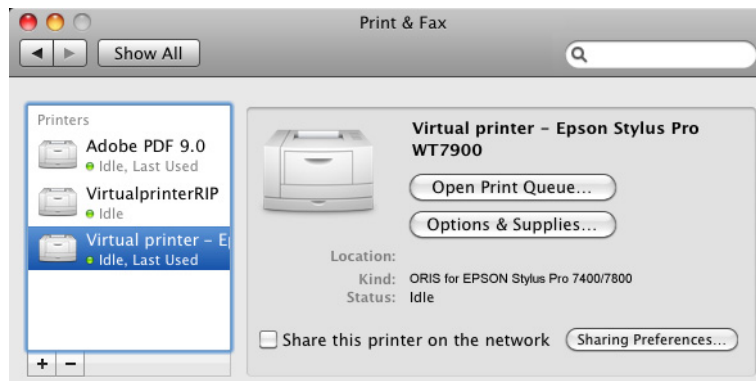


Fig. 15-10 Mac OS 10.6: New Print Queue



Troubleshooting

If ORIS Flex Pack//Web does not start processing a job () , this may have several reasons. To track down the problem, check the following:

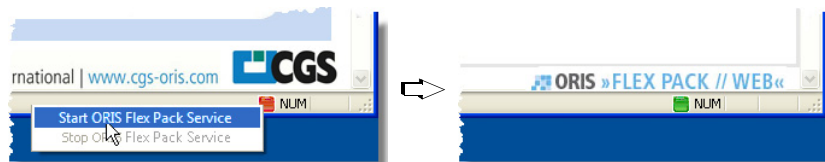
Problem	Solution
Output queue has been stopped  .	Select the output queue, then click  .
Job has been put on hold  .	Select the job, then click  .
Job is waiting  .	Click  to increase the job priority.
Soft proof needs to be verified  .	Click on the icon to open the file in Acrobat.
ORIS Flex Pack/Web service is not running.	Click the  icon, then select START ORIS FLEX PACK SERVICE (see Fig. 15-11).

The status of the ORIS Flex Pack/Web service is indicated in the bottom right corner of the main window. Jobs are only processed if the service is running . Starting this service requires administrative rights.

» RELATED TOPICS:

- STARTING AND STOPPING OUTPUT QUEUES (PAGE 16-5)
- CONTROLLING JOB PROCESSING (PAGE 16-11)
- VERIFYING SOFT PROOFS IN ADOBE ACROBAT (PAGE 19-9)

Fig. 15-11 Starting the ORIS Flex Pack/Web Service



16 Controlling Jobs and Queues

Managing Output Queues

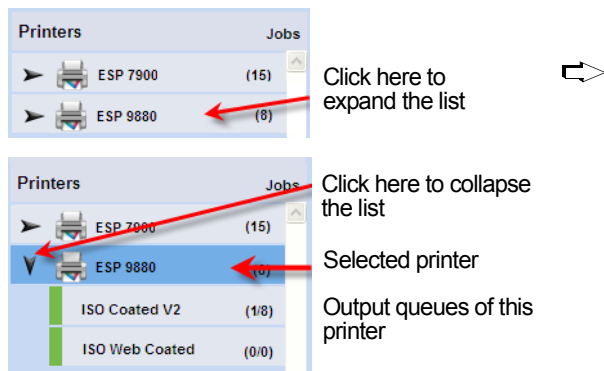
Selecting Output Queues

Output queues are listed on the left of the main window under the names of the respective printers.

1. Click on the printer name.

This expands the list of output queues that exist for this printer. The jobs residing in all of these output queues are listed on the right. The total number of jobs is indicated to the right of the printer name.

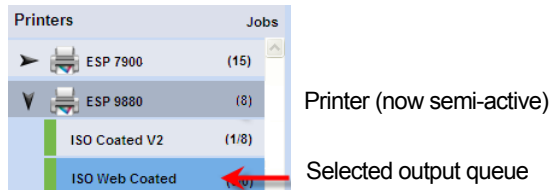
Click on the arrow on the left if you want to collapse the list of queues.



2. Click on the output queue to select it.

Now only the jobs in the selected output queue are listed on the right.

The selected output queue is highlighted with a dark blue background color. The related printer remains highlighted, but the background color changes to gray. This is referred to as a 'semi-active' state.



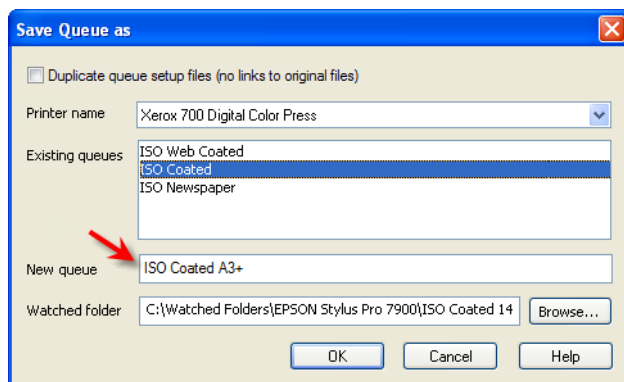
Renaming or Duplicating Output Queues

You can easily choose a different name for an output queue or create a duplicate with slightly different settings for the same printer.

You can also assign a duplicate of the output queue to another printer. Both printers must be of the same printer model.

Proceed as follows:

1. Select the output queue to be duplicated.
2. Select FILE | DUPLICATE QUEUE.
3. Leave DUPLICATE QUEUE SETUP FILES disabled if the duplicated queue should use the same setup files (*.cal, *.dat, *.scgx, *.icc, etc.) as the original queue. Changes to these files will apply to both queues. Use this setting when creating variants of a print queue with just minor changes such as different paper sizes, for example. If a printer needs to be recalibrated, this has to be done for just one queue. The changes automatically propagate to the other queues, as all of them share the same *.cal file.
4. The selected output queue is highlighted in the list named EXISTING QUEUES. If this is not the queue to be duplicated, select another.
5. If you want to assign the queue to another printer, select the printer from the list named PRINTER NAME.
6. Enter a name into the input box named NEW QUEUE. This is not required if you are assigning the new output queue to another printer.
7. A watched folder will be created automatically. If you want, modify its name in the WATCHED FOLDER input box.
8. Click OK.



» RELATED TOPICS:

- HOW TO MODIFY JOB OR QUEUE SETTINGS (PAGE 13-7)
- OUTPUT VIA WATCHED FOLDERS (PAGE 15-1)

Exporting and Importing Queues

Output queues can be saved to a ZIP archive file using the UTILITIES | EXPORT QUEUE command. The ZIP file can be imported as a new output queue using the UTILITIES | IMPORT QUEUE command.

This allows you to make backup copies and to transfer output queues to another computer or to CGS Support for problem analysis.

Queue Status Information

Number of Files

The number of files already printed and the total number of files in the output queue are indicated to the right of the queue name. Example:



8 files in this output queue
1 file has been printed

Status 'Started' or 'Stopped'

Whether a queue is active or inactive is indicated by the color of a vertical bar displayed to the left of the queue name:

Active (started) – green

The jobs in the output queue are processed (🟢).

Jobs with a low priority may have to wait (🟡).

Printers	Jobs	ESP 9880 - ISO Web Coated
ESP 9880 (8)		Status Name User
ISO Coated V2 (0/5)		🟡 Frankfurt.jpg system
ISO Web Coated (7/10)		

Inactive (stopped) – red

The jobs in the output queue are *not* processed.

A job that is currently being processed (🟢) will continue to be processed, even if you stop the job or the output queue.

Printers	Jobs	ESP 9880 - ISO Web Coated
ESP 9880 (8)		Status Name User
ISO Coated V2 (0/5)		🟡 Frankfurt.jpg system
ISO Web Coated (7/10)		

A job may not be processed even if the output queue has been started. This may have the following reasons:

- The job has been put on hold by clicking on 🟡.
- The job has been put on hold automatically. This can be specified for all jobs of a queue (🔧, WORKFLOW tab, START JOBS MANUALLY...).
- A soft-proof PDF file has been created, but not yet approved (🟢).
- The queue is being locked because a calibration process is running (see below).

» RELATED TOPICS:

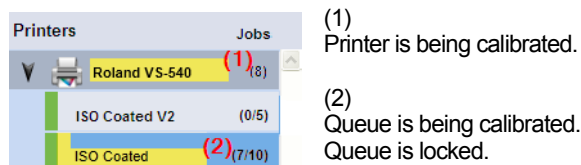
- START JOBS MANUALLY... (PAGE 13-10)
- TROUBLESHOOTING (PAGE 15-12)
- CONTROLLING JOB PROCESSING (PAGE 16-11)
- SOFT PROOFING (PAGE 19-1)
- STATUS 'CALIBRATING' AND 'LOCKED' (PAGE 16-5)

Status ‘Calibrating’ and ‘Locked’

While a printer is being calibrated, the printer name is highlighted with a yellow background color to indicate the running calibration process. The name of the related queue (if any) is highlighted in the same way.

While a printer is being calibrated, the program locks the output queue for which calibration was started or, in certain cases, all of the output queues created for this printer. A locked queue is put on hold temporarily and does not process any incoming files. This is done to prevent output from a queue that is in an undefined state.

The locked state is indicated by a vertical yellow bar to the left of the printer and/or queue name.



A queue is unlocked automatically as soon as the calibration process has completed. In some cases, however, it may be necessary to unlock a queue manually. To do so, select the printer and choose the command UTILITIES | RELEASE LOCKED QUEUE(S).

See also *Printer Calibration* (page 14-1).

Starting and Stopping Output Queues

To start or stop a single queue:

1. Select the output queue (see page 16-1).
2. Click the following buttons:



To stop all queues of a printer:

1. Select the printer. Or select an output queue of this printer.
2. Click the following button:



To start an output queue for a single job:

If an output queue is inactive, you can start it just for a single job. This is the job with the highest priority. The queue will then stop automatically.

1. Select the output queue.
2. Click the  button.

The job with the highest priority will be processed now ( => ). If there are no waiting jobs in the output queue, this applies to the job that will be added next.

Note: If the job has been put on hold , you first have to start it . In addition, you may first have to verify and approve the soft-proof PDF file.
See also *Troubleshooting* (page 15-12).

Deleting Output Queues

1. Delete all jobs from the output queue.
2. Select the output queue (see page 16-1).
3. Click the  button or select FILE | DELETE.

Output queues can only be deleted if they are empty (no jobs).
You can only select and delete a single output queue.

Deleting Printers

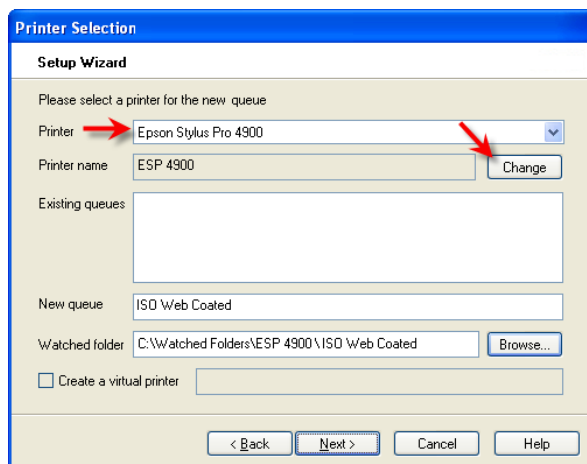
1. Delete all queues assigned to the printer.
2. Select the printer (see page 16-1).
3. Click the  button or select FILE | DELETE.

A printer can only be deleted if it does not contain any queues. You can only select and delete a single printer.

Renaming Printers

How to change the name of the printer displayed in ORIS Flex Pack// Web:

1. Click  to start the Setup Wizard.
2. Click NEXT repeatedly until you reach the dialog shown below.
3. Select the printer to be renamed.
4. Click on CHANGE, modify the name, then click **OK**.
5. Select CANCEL to exit the Setup Wizard.



Highlighting Output Queues

The output queues listed on the left can be marked so that they stand out against all other queues. This makes it easier to find the queues you are using at a given moment, for example.

You can choose a color for the queue name (i.e. a text color) and a color for the background of this name. The jobs listed on the right can be colored in the same way, if you want to.

Note: This functionality is not available for the ORIS Flex Pack//Web Client (browser application).

Fig. 16-1 Highlighting Output Queues



How to Highlight Output Queues

1. Right-click the output queue to be marked.
2. Select  from the context menu.
3. Click on the first color box and select a background color.
4. Click anywhere outside the color picker. This closes the color picker. Do not click **OK**. This would close the dialog.

5. Click on the second color box and select a text color.
6. The BACK TO DEFAULT option allows you to restore the default colors.
7. To apply the selected colors to the jobs listed on the right, use the list named COLORIZE JOB LIST and select ALWAYS or IN MIXED LISTS.

The latter applies the colors only if a printer is selected. This allows you to easily distinguish jobs belonging to different output queues. Select No if the colors should not be applied to the job list.

Picking a color selects the hue and saturation only. The program automatically chooses a dark tone for the background color and a light tone for the text color. If required, adjust the lightness using the slider. Instead of using the color picker, you can enter the hexadecimal HTML color code into the color box. Example: **#FF00FF** (magenta).

Managing Jobs

Selecting Jobs

Selecting a Single Job

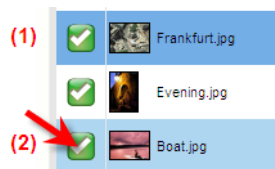
Click on a job in the job list. You may click on any column (STATUS, NAME, USER, PRIO, etc.). A dark blue background that stretches across the complete line indicates that this is the *active* job now.

A preview image and file information appear underneath the job list (see Fig. 16-3).

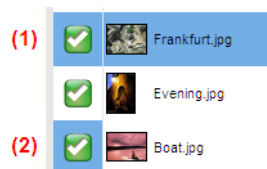
Selecting Multiple Jobs

Select the jobs by clicking on the *first* column (STATUS) of the job list.

A dark blue background *in this column only* indicates the jobs that are now selected in addition to the active job.



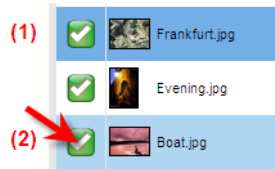
- (1) Active job
(2) Click here



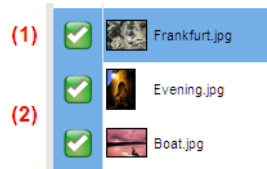
- (1) Active job
(2) Job selected additionally

Selecting Range of Jobs

SHIFT-click to select all jobs from the active job through the job you have clicked. We recommend to click on the STATUS column.



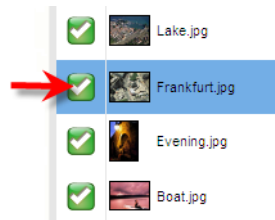
- (1) Active job
(2) SHIFT-click here



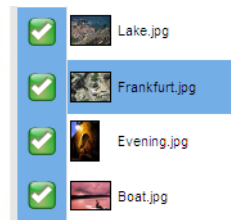
- (1) Active job
(2) Jobs selected additionally

Selecting All Jobs in Queue

SHIFT-click the *active* job. This is the job with the dark blue background stretching across the complete line of the job list. We recommend to click on the STATUS column.



SHIFT-click active job



All jobs are selected now

Deselecting Jobs

If multiple jobs are selected, you can deselect some or all of them.

- Single job: Reclick the STATUS column of this job.
- All jobs: Select a job by clicking any of its columns except STATUS.

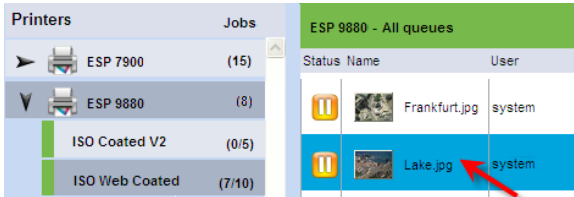
Inverting Selection

CTRL-SHIFT- or ALT-SHIFT-click the *active* job. This deselects all selected jobs and selects all jobs that were not selected. We recommend to click on the STATUS column.

The active job is the job with the dark blue background stretching across the complete line of the job list. If you click another job, the selection will only be inverted within the job range (all jobs from clicked to active job).

Selecting from Multiple Queues

If the jobs of multiple output queues are listed and you click on a job, the output queue that holds this job is highlighted on the left. The queue is indicated as 'semi-active' which is shown by a gray background color.



Output queue
(now semi-active)

Selected job

Job Status

The job status is indicated in the first column of the job list:

Status	Name	User	Prio	Copy	Size	Type	Last modified	Progress	Softproof	Certified
	Frankfurt.jpg	system	normal (0)	1	279 Kb	jpeg	08:18 08/12/15	0 %		

A job can be in one of the following states:

	On hold (stopped) The job was stopped () or the queue was set to automatically stop all jobs ( , WORKFLOW tab, START JOBS MANUALLY...). Click  to start the job.
	Waiting to be processed The job will be processed if the queue is active. The job may have to wait until other jobs with a higher priority have been processed. If a soft-proof PDF file has been created () , the PDF file must first be verified and approved. See also page 19-1.
	Currently being processed The job will be output automatically.
	Currently being canceled ( was clicked)
	Output successfully The job can be certified if this has been requested ().

	Output with warnings Click  to open the log. It provides details about the warnings.
	Output failed Click  to open the log. It provides details about the errors.

Scatter Proofing Status

If scatter proofing is enabled, jobs are collected on a temporary page know as the *scatter proof form*. The jobs are usually printed automatically when this page is full. Such jobs can be in one of the following states:

	On hold (stopped)
	Waiting to be added to scatter proof form
	Currently being added to scatter proof form
	Currently being canceled
	Successfully added to scatter proof form, but not printed yet
	Printed successfully (i.e. scatter proof form was printed)
	Added to scatter proof form or printed, but with warnings
	Error – not added to scatter proof form or not printed

» RELATED TOPICS:

- SOFT PROOF PROCESSING STATUS (PAGE 19-8)
- CERTIFICATION STATUS AND RESULTS (PAGE 21-10)
- SCATTER PROOFING (PAGE 20-1)

Controlling Job Processing

Select the jobs (see page 16-8), then use the following buttons:

	Starts jobs that are on hold ( =>  or ).
	Stops waiting jobs, i.e. puts them on hold ( =>  Jobs that are currently being processed () continue to be processed when you stop the jobs or the output queue.

	Cancels running jobs immediately ( =>  => ).
	Use this button as a last resort only, e.g. if job processing hangs. May cause side effects such as temporary files not being deleted.
	Reprints or reprocesses the jobs.
	Deletes the jobs.
	Increases the priority class of waiting jobs (see page 16-20).
	Decreases the priority class of waiting jobs.

» RELATED TOPICS:

- UNDERSTANDING JOB PRIORITY (PAGE 16-20)
- TROUBLESHOOTING (PAGE 15-12)

Changing Number of Copies

Click on the small + and – buttons to change the number of copies to be output (see Fig. 16-2).

Alternatively, click  for a queue or job and use the COPIES option.

Sorting Jobs

The list of jobs can be sorted by clicking on the column headers. You can sort by various criteria such as user name, priority or file type.

Fig. 16-2 List of Jobs

Click here to sort by job priority (output order).

ESP 7900 - ISO Web Coated									
Status	Name	User	Prio	Copies	Size	Type	Last modified	Progress	Softproof Certified
	 Frankfurt.jpg	system	high (3)	1	279 Kb	jpeg	08:18 08/12/15	0 %	 
	 Lake.jpg	system	high (2)	1	243 Kb	jpeg	08:18 08/12/15	0 %	 
	 LeisurePark.jpg	system	maximum (1)	1	262 Kb	jpeg	08:18 08/12/15	0 %	 

Click here to change the number of copies.

Preview and Log

Click on a job in the list. A preview image appears under the list. Additional details such as author or page size are indicated on the right.

You can open a larger view of the preview image in a new window. To do so, click the preview or the  button that appears to the top right of it. Click  to close all preview windows in one go.

Note: Preview and thumbnail images represent the input document, not the expected output results.

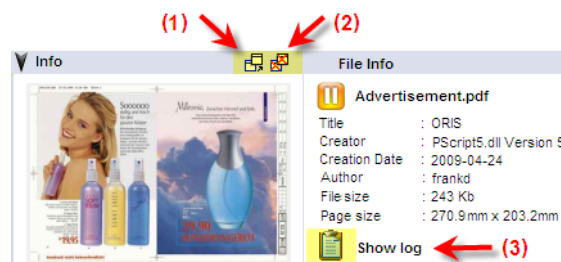
Note: To speed up processing you may want to turn off the generation of previews and thumbnails. To do so, select the queue, click , select the **WORKFLOW** tab and disable the **CREATE THUMBNAILS AND PREVIEWS** option.

Click the  button to open the log file. It lists the settings used for processing the job as well as errors, warnings and preflight information. Click on **WORD WRAP** if text lines are cut off at the right margin.

» RELATED TOPICS:

- STATUS OF SCATTER PROOF JOBS (PAGE 20-7)
- START JOBS MANUALLY... (PAGE 13-10)

Fig. 16-3 Opening Enlarged Preview and Log File



Click here to do the following:

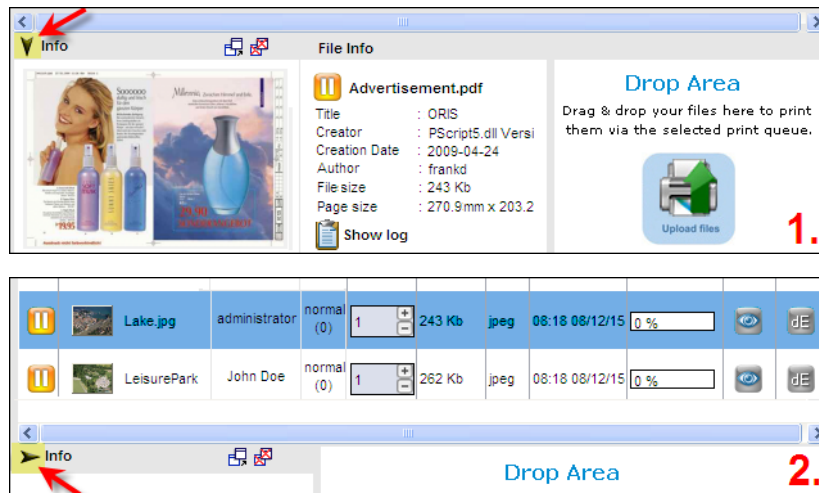
- (1) Open a larger preview in a new window (or click image).
- (2) Close all open preview windows.
- (3) Open the log file.

Viewing More Jobs

If you want to see more jobs of the job list, click the ▼ button next to INFO. This hides the preview, file information and DROP AREA at the bottom of the main window and makes room for additional jobs. Click ► to restore the hidden window areas.

Fig. 16-4 Making More Room for Job List

Click here to hide the INFO area, including the preview and DROP AREA.



Click here to restore the hidden dialog areas.

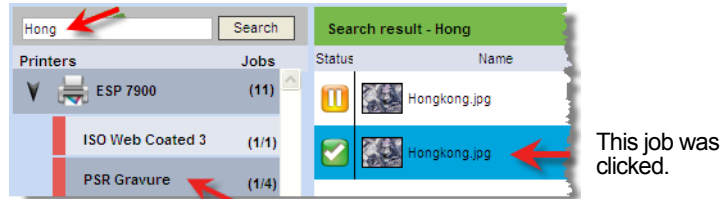
Searching Jobs

How to find out in which output queue a job resides:

1. Enter the job name or some characters of it into the input box.
2. Click on SEARCH or press the ENTER key.
The jobs that match these characters are listed.
3. Click on one of these jobs in the list.
The output queue in which the job resides becomes highlighted.

Fig. 16-5 Searching Jobs

Enter your search text here.



The related output queue is highlighted now.

Deleting Jobs

1. Select the jobs (see page 16-8).
2. Click the  button or select FILE | DELETE.

Jobs can only be deleted if they are not being processed (.

Modifying Job Separations

It is possible to replace or omit individual color separations of a job and to preview these modifications before the job is printed. This allows you to do the following, for example:

- Change incorrect spot color names
- Prevent cut lines from being printed if contour cutting is not performed
- Replace PANTONE®¹ colors with spot colors defined as cut lines in the print queue's spot color correction file (SCG)

» RELATED TOPICS:

- SPOT COLOR SIMULATION (PAGE 22-1)
- HALFTONE PROOFING (PAGE 18-1)

Restrictions

Omitting and replacing color channels applies to the input data. The color matching process, which occurs subsequently, may re-add the omitted or replaced color again.

You can only modify CMYK and spot color data. Modifying RGB data is not supported.

1. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

Currently, if used for a multi-page document, this functionality applies to the first page only.

Replacing and omitting color channels does not provide correct results when scatter-proofing PDF files with the Adobe PDF Print Engine enabled.

Starting the Print Job Editor

- 1. Click on the job preview to enlarge it (see page 16-13).
- 2. Click on EXAMINE, SHOW AND CHANGE JOB SEPARATIONS under the enlarged preview image.



A list of all color separations used in the print job appears (see below).

Inspecting Separations

The list under the preview images shows whether the separation will be omitted or printed with another color.

The text NO COLOR CORRECTION AVAILABLE YET appears if a spot color is not defined in the spot color correction (SCG) file related to the output queue. Such colors will be printed with their CMYK equivalence values. The color simulation is therefore likely to be incorrect.

If you place the cursor on a color patch, the CMYK or Lab values are displayed in a small window.

Note: Separated PDF/PS files and 1-bit TIFF files do not include information about CMYK equivalence values. If such colors are not defined in one of the OSC files in the installation directory, the CMYK equivalence values are set to green. A different shade of green is used for every color.

Note: Leading and trailing blanks in a color name are visualized using a special character (□). Such color names should not be used.

Print	Separation	Print as	Notes	
☒	 Magenta	 Magenta		Edit
☒	 Yellow	 Yellow		Edit
☒	 PANTONE 230 C	 PANTONE 230 C	No color correction available yet	Edit
☒	 cut_contour	 cut_contour		Edit

Omitting Separations

Click the check box in the PRINT column to omit or print the separation.

Print	Separation	Print as	Notes	
☒	 Magenta	 Magenta		Edit
☒	 Yellow	 Yellow		Edit
☒	 PANTONE 230 C	 PANTONE 230 C	No color correction available yet	Edit
☐	 cut_contour	 cut_contour		Edit

Replacing Separations

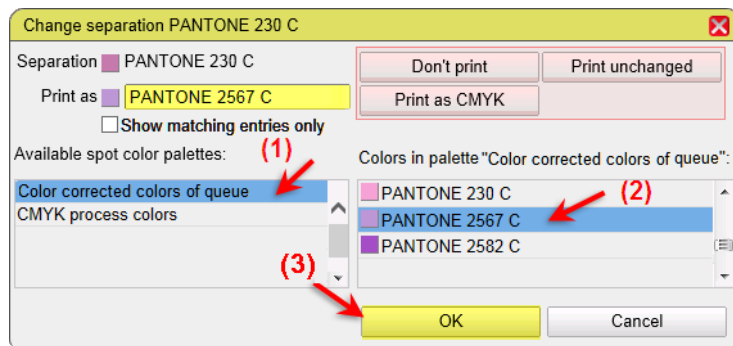
Click EDIT or the name in the PRINT AS column to print this separation with another color.

Print	Separation	Print as	Notes	
☒	 Magenta	 Magenta		Edit
☒	 Yellow	 Yellow		Edit
☒	 PANTONE 230 C	 PANTONE 230 C	No color correction available yet	Edit
☐	 cut_contour	 cut_contour		Edit

A new window appears which allows you to do the following:

- Click COLOR CORRECTED COLORS OF QUEUE to replace the color with a color available in the spot color correction (*.scgx) file related to the output queue. Pick the new color from the list on the right.
- Click CMYK PROCESS COLORS to replace the color with a process color.
- Enter a spot color name manually into the PRINT AS box. A message indicates whether this color exists in one of the spot color libraries.
- To search for a spot color, enter the beginning of the color name or use the wildcard *. All color names that match your input will be highlighted in the list. See below for more details.
- Click PRINT AS CMYK to replace a spot color with its CMYK equivalence values.
- Click DON'T PRINT to omit the separation.
- Click PRINT UNCHANGED to reverse your changes.

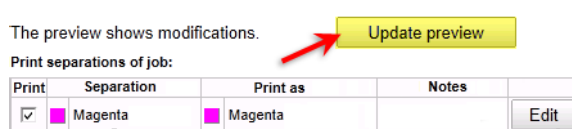
Fig. 16-6 Selecting a New Spot Color



Click **OK** to return to the list of color separations, which now reflects your changes. The word **CHANGED** appears.

Print	Separation	Print as	Notes	
☒	Magenta	Magenta		Edit
☒	Yellow	Yellow		Edit
☒	PANTONE 230 C	PANTONE 2567 C	Changed.	Edit
☐	cut_contour	cut_contour		Edit

Click **UPDATE PREVIEW** or **SHOW MODIFICATIONS**, respectively, to see how the job will be printed now. Click **SHOW ORIGINAL** to see how the job would be printed without your changes.



Searching Spot Colors

The list of spot colors may be extremely long. Scrolling down the list to search for a particular spot color may be tedious. We therefore recommend to use ORIS Flex Pack/Web's convenient search function.

To search for a color, enter the following into the **PRINT AS** box:

- Beginning of spot color name
Example: The input **pantone warm** matches PANTONE Warm Red C, PANTONE Warm Gray 1 C, PANTONE Warm Gray 2 C, etc.
- Spot color name with wildcards (* = any number of characters)
Example: The input **pantone * red *** matches PANTONE Warm Red C, PANTONE Rubine Red C, PANTONE Rhodamine Red C, etc.

If your input matches a single spot color, the program will automatically complete your input. The full color name will appear in the input box.

Otherwise, the program indicates the number of matches and highlights the spot colors that match your input as well as the libraries that contain these colors (see Fig. 16-7). Boldface type is used for highlighting.

Enable the SHOW MATCHING ENTRIES ONLY option to narrow down the list of libraries and spot colors to the entries that match your input (see Fig. 16-8). Then select the color you want.

Fig. 16-7 Searching Spot Colors

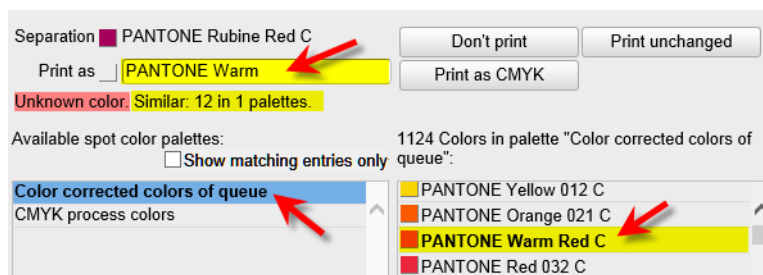
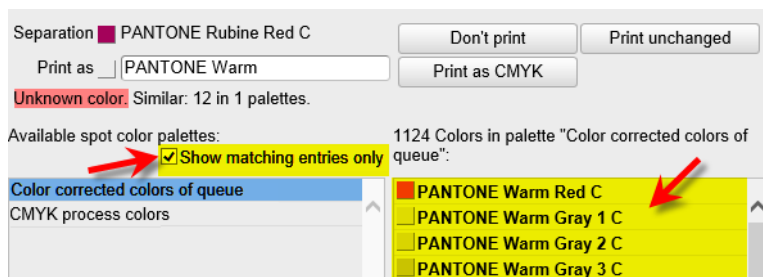


Fig. 16-8 Narrowing Down Search Results



Adjusting Preview Representation

The preview image can be moved around with the mouse button pressed down.

Use the buttons on the top left to modify how the preview is displayed:

	View maximum detail. One image pixel is represented as one pixel on the screen.
	Zoom in (enlarge size).
	Zoom out (reduce size).

	Fit image to window (enlarge or reduce accordingly).
	Select the color separations to be displayed or hidden: Click the  buttons to view a single separation only. Click the  buttons to view a combination of separations. ☐ Display all separations ☒  Black ☒  Cyan ☒  Magenta ☒  Yellow ☒  PANTONE 230 C ☒  cut_contour

Understanding Job Priority

The   buttons move a job to the next higher or lower *priority class*. The higher the priority class, the sooner a job will be output.

The priority class is indicated in the PRIO column of the job list (see Fig. 16-2). There are the following priority classes:

- MAXIMUM
- VERY HIGH
- HIGH
- NORMAL (default for new jobs)
- LOW
- VERY LOW
- ON HOLD

The numbers in parentheses that appear under the priority class indicate the order in which the jobs will be output. The job that will be output first has the number 1. Jobs output already have the number 0. Example:

NORMAL	Priority class
(10)	Rank in output order

The output order applies across all queues, i.e. the ranking numbers are unique in ORIS Flex Pack//Web. In the following example, the priority class of job G is increased ↑. Job G is thus raised to rank 1, while all other jobs in both queues are lowered by 1 in their respective ranks.

	1.			2.	
	Queue 1	Queue 2		Queue 1	Queue 2
Priority class HIGH	Job A (1) Job B (4)	Job C (2) Job D (3)	⇌	Job A (2) Job B (5)	Job G (1) Job C (3) Job D (4)
Priority class NORMAL	Job E (5) Job F (6)	Job G (7) ↑		Job E (6) Job F (7)	

Jobs that belong to the same priority class are always output in the order in which they originally entered the output queue. Note how the ranking numbers change in the following example:

	1. Jobs A, B, C and D are added to the output queue	2. Result of increasing the priority class of jobs B and C by 1	3. Result of increasing the priority class of job A by 1
Priority class HIGH		Job B (1) Job C (2)	Job A (1) Job B (2) Job C (3)
Priority class NORMAL	Job A (1) Job B (2) ↑ Job C (3) ↑ Job D (4)	Job A (3) ↑ Job D (4)	Job D (4)

17 Remote Proofing

Using a web browser (client application) you can access the ORIS Flex Pack//Web Server from remote locations over the Internet or local network. You can upload and control jobs, verify soft proofs and create contract proofs just as you would with the server application.

Tip: You should first test the client application in your local network. Do not work over the Internet until you have gathered sufficient experience with ORIS Flex Pack//Web.

Granting Remote Access to Web Server

Create a user account for every user who wants to have remote access to ORIS Flex Pack//Web via web browser (client application). These are specific user accounts for ORIS Flex Pack//Web which should not be confused with email or Windows accounts. The program includes a standard user account named ADMINISTRATOR.

» RELATED TOPICS:

- DNS NAME FOR WEB SERVER (PAGE 17-11)
- SERVER CONFIGURATION (PAGE 17-12)

Opening the User Account List

Select FILE | USER ACCOUNTS in the ORIS Flex Pack//Web Server application.

This opens the list of users and the options set for each user (see Fig. 17-1). Click on the QUEUES tab to open the list of output queues. Click on a queue to see which users are allowed to see this queue (see Fig. 17-2).

The options can be switched on and off. You can sort the list of user accounts by clicking on one of the column headers.

Fig. 17-1 List of User Accounts

User name	Email address	See all jobs	See softproof	See certification	Edit queues
+ New user					
administrator	admin@xxl.com	☒	☒	☒	☒
John Doe	jdoe@jdoe.com	☒	☒	☒	☐
Pam Doe	pdoe@jdoe.com	☒	☐	☐	☐

- (1) Click on the first line to create a new user account.
- (2) Click on a name to edit or delete a user account.
- (3) Click here to specify which users can see a particular output queue (Fig. 17-2).

Fig. 17-2 List of Output Queues

Queues	Queue can be seen
ESP 9600	
ISO Coated	1 / 3
ScreenDot	2 / 3
HP Z3100 24in	
ScreenDot	0 / 3

User	Queue can be seen
administrator	☐
John Doe	☐
Pam Doe	☒

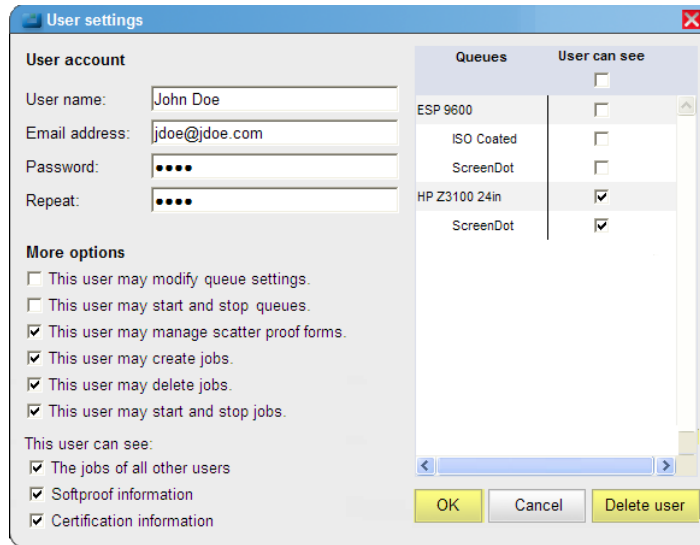
Adding User Accounts

1. Click on +NEW USER (see Fig. 17-1). This opens the dialog shown in Fig. 17-3.
2. Enter the user name, e-mail address and password.
3. Specify the additional options, then click **OK** (see page 17-3).

Editing or Deleting User Accounts

1. Click on the user name or anywhere else on the same line. This opens the dialog shown in Fig. 17-3.
 2. Modify the user rights, then click **OK**. Or click on DELETE USER.
- The predefined user account named ADMINISTRATOR cannot be deleted.

Fig. 17-3 User Account Options



The 'User settings' dialog box is shown. It has a title bar with a close button. The main area is divided into two panes. The left pane is titled 'User account' and contains fields for 'User name:' (John Doe), 'Email address:' (jdoe@jdoe.com), 'Password:' (masked with dots), and 'Repeat:' (masked with dots). Below these is a section titled 'More options' with several checkboxes: 'This user may modify queue settings.' (unchecked), 'This user may start and stop queues.' (unchecked), 'This user may manage scatter proof forms.' (checked), 'This user may create jobs.' (checked), 'This user may delete jobs.' (checked), and 'This user may start and stop jobs.' (checked). Below this is a section titled 'This user can see:' with three checkboxes: 'The jobs of all other users' (checked), 'Softproof information' (checked), and 'Certification information' (checked). The right pane is titled 'Queues' and 'User can see'. It contains a table with two columns: 'Queues' and 'User can see'. The table has the following rows: 'ESP 9600' (checkbox unchecked), 'ISO Coated' (checkbox unchecked), 'ScreenDot' (checkbox unchecked), 'HP Z3100 24in' (checkbox checked), and 'ScreenDot' (checkbox checked). At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Delete user'.

Queues	User can see
ESP 9600	☐
ISO Coated	☐
ScreenDot	☐
HP Z3100 24in	☒
ScreenDot	☒

User Rights

QUEUES ... USER CAN SEE

Select the output queues that should be visible to the current user. To do so, click on the check boxes on the right. The topmost check box allows you to select *all* output queues in one go (see Fig. 17-3).

THIS USER MAY...

These options are shown in Fig. 17-3.

Note: To create users that are allowed to *view* jobs only, without the ability to output jobs or to modify queues and jobs, disable all of these options.

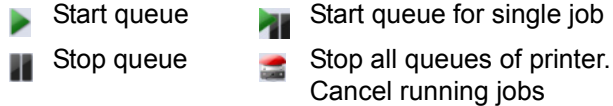
MODIFY QUEUE SETTINGS

Allows the user to modify some of the settings defined for an *output queue*, e.g. scaling or certification requests.

Without this right, these settings can be applied to single *jobs* only. The  button is grayed out if an output queue is selected. The button is invisible if the right to modify job settings is also disabled.

START AND STOP QUEUES

Allows the user to control output queues using the buttons shown below. Without this right, these buttons are grayed out for queues or invisible.



PRINT SCATTER PROOF FORMS

Allows the user to immediately print the jobs collected for scatter proofing by clicking the  button. Without this right, this button is invisible. See also *Scatter Proofing* (page 20-1).

CREATE JOBS

Allows the user to upload files to the Web Server using the buttons shown below. Without this right, these buttons are invisible.



DELETE JOBS

Allows the user to delete jobs using the  button. Without this right, this button is invisible.

Note: Web Client users are not allowed to delete queues or printers. This can only be done via the ORIS Flex Pack//Web Server application.

MODIFY JOB SETTINGS

Allows the user to modify some of the settings of a single *job*, e.g. scaling or certification requests.

Without this right, these settings can be applied to *output queues* only. The  button is grayed out if a job is selected. The button is invisible if the right to modify queue settings is also disabled.

START AND STOP JOBS

Allows the user to control jobs using the buttons shown below. Without this right, these buttons are grayed out for jobs or invisible.



» RELATED TOPICS:

- MODIFYING OUTPUT QUEUES (PAGE 13-7)
- OUTPUT VIA DROP AREA (PAGE 15-3)
- MANAGING OUTPUT QUEUES (PAGE 16-1)
- MANAGING JOBS (PAGE 16-8)

THIS USER CAN SEE...

These options are shown in Fig. 17-3.

THE JOBS OF ALL OTHER USERS

If this option is disabled, the user can see his own jobs only. If the option is enabled, he can also see jobs of other users.

Also enable this option to make jobs visible that were created in a DTP application by printing to a virtual PS printer and watched folder. Such jobs belong to the user named *system*.

SOFTPROOF INFORMATION

Enable this option if the user should be allowed to verify soft proofs and to see whether a soft proof was approved or rejected.

If this option is disabled, the soft proof status is not indicated in the list of jobs.

CERTIFICATION INFORMATION

Enable this option if the user should be allowed to see the result of the proof certification. If this option is disabled, the certification status is not indicated in the list of jobs.

» RELATED TOPICS:

- OUTPUT VIA WATCHED FOLDERS (PAGE 15-1)
- OUTPUT FROM OTHER APPLICATIONS (PAGE 15-6)
- SOFT PROOFING (PAGE 19-1)
- SOFT PROOF PROCESSING STATUS (PAGE 19-8)
- CERTIFYING PROOFS (PAGE 21-1)
- CERTIFICATION STATUS AND RESULTS (PAGE 21-10)

Starting ORIS FLEX PACK// WEB Client

Make sure to use a supported web browser version (see page 1-4).

Enter the following into the browser's address line:

- Access via Internet:
DNS name of ORIS Flex Pack//Web Server application.
This is the fully qualified domain name.
See also *Server Configuration* (page 17-12).
- Access via local network:
Name or IP address of the computer that runs the ORIS Flex Pack//Web Server software.

- If client and server application run on the same computer:
Enter **localhost**.

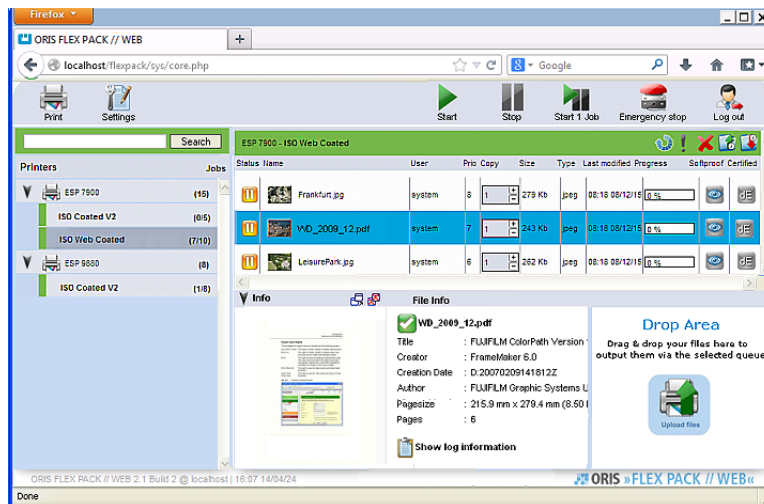
Log on with your user name (not case sensitive) and password (case sensitive). The ORIS Flex Pack//Web Client application appears in the browser window. The name or IP address you have entered is displayed at the bottom of the window after the product name (see Fig. 17-4).

Macintosh computers may be unable to resolve computer names to IP addresses. This may occur in local networks that do not have a Domain Name Service.

In this case we recommend to edit the file `/etc/hosts`. Add a new line consisting of the IP address and, followed by a space, the host name. Please contact your network administrator for more information.

- » RELATED TOPICS:
- ORIS FLEX PACK// WEB CLIENT (PAGE 1-4)
 - DNS NAME FOR WEB SERVER (PAGE 17-11)

Fig. 17-4 ORIS FLEX PACK// WEB Client Window



Using the Web Client

The Web Client's user interface is very similar to that of the server application. It can be operated more or less in the same way, but the functionality is restricted. It is not possible to create new output queues or to calibrate and color-match printers, for example.

File Upload

There are several methods of uploading files to the ORIS Flex Pack//Web Server using a web browser.

Note: You cannot upload more than 2047 MB of files at a time.

Using Drop Area

This method is supported by virtually any web browser:

1. Select the output queue.
2. Drag the files onto the DROP AREA (bottom right).



The files are processed according to the settings of this output queue.

Note: Opera browsers used on a Macintosh do not support this method.

Dropping Files Anywhere

This method is supported by the following web browsers only (and not available for the ORIS Flex Pack//Web Server application):

- Mozilla Firefox
- Google Chrome
- Apple Safari

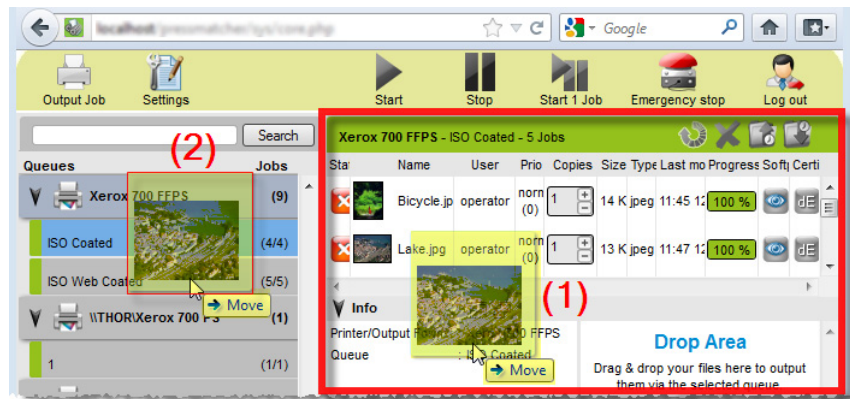
To output files via the selected queue:

1. Select the output queue.
2. Drag the files and drop them anywhere on the right-hand area (1).

To output files via any queue, even if it is not selected:

1. Drag the files onto the list of queues on the left.
2. Drop the files when the cursor is on the name of the queue to be used (2). An icon such as → or + indicates a valid drop target.

Fig. 17-5 Drag&Drop on the Right (1) or on a Queue (2)



Using Output Dialog

To output a single file using a dialog:

1. Click  at the top left of the main window.
2. Select the file to be processed and the output queue.
3. If you want, you can override some of the queue settings.

Note: If Internet Explorer is used, documents with extremely long file names cannot be output with the  button.

Queue Setup and Control

The following is a brief overview of the toolbar buttons. Some of them may be grayed out or invisible, depending on the user rights.



Click here to modify some of the settings defined for the job or queue, e.g. scaling or certification requests (see Fig. 17-6).



Click here to log out from the ORIS Flex Pack//Web Client. Pressing F5 or refreshing the page also logs out.



Starts or stops output queues or jobs.



Starts an output queue for a single job.



Reprocesses or reprints jobs.



Changes the priority class of a job.



Deletes jobs.

Queues and printers cannot be deleted via Web Client.



Stops all queues of a printer (if applied to a queue).

Cancels running jobs (if applied to jobs).

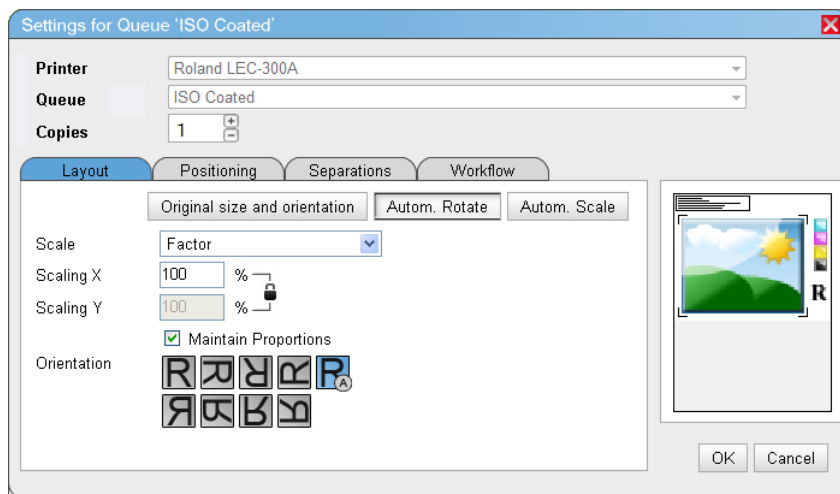


Immediately prints the jobs collected for scatter proofing.

» RELATED TOPICS:

- USER RIGHTS (PAGE 17-3)
- MODIFYING OUTPUT QUEUES (PAGE 13-7)
- OUTPUT VIA DROP AREA (PAGE 15-3)
- STARTING AND STOPPING OUTPUT QUEUES (PAGE 16-5)
- CONTROLLING JOB PROCESSING (PAGE 16-11)
- SCATTER PROOFING (PAGE 20-1)

Fig. 17-6 Changing Queue Setup via Web Client



Security Notes

The following information does not claim to be exhaustive. We assume no liability for its correctness. If you need help, CGS is glad to assist you.

Connecting a computer to the Internet is a source of potential risk. The computer may be hacked and data may be spied out, modified, or deleted.

ORIS Flex Pack//Web does not automatically provide for computer security. The owner of the Web Server is responsible for this. CGS does not assume any liability for damages arising from insufficient protection against attacks from the Internet.

To protect your computer we recommend the following:

- Have the Internet connection set up by qualified professionals.
- The Web Server should be protected by an external firewall.

We strongly advise against a direct Internet connection. This would require extremely complex measures for protecting the ORIS Flex Pack//Web Server. As a result, working in the local network would be subject to considerable restrictions.

- On the Web Server, do not install any software that provides web services such as Apache or Microsoft IIS. This could violate your computer's protection and destroy the ORIS Flex Pack//Web installation.
- Always install the latest updates for the server software (Apache) on the Web Server.
- We recommend to observe the recommendations of the IT Baseline Protection Catalogs published by the German Federal Office for Security in Information Technology (BSI). More details can be found on the German-language website <http://www.bsi.bund.de/gshb/>.

Requests from ORIS Flex Pack//Web Clients are handled by a service that runs under a Windows *user account* named ORIS-SERVICE. We recommend to remove this user from the group of ADMINISTRATORS and add it to the group named USERS.

To do so, log on as a user with administrative rights and select START | (SETTINGS) | CONTROL PANEL | ADMINISTRATIVE TOOLS | COMPUTER MANAGEMENT | SYSTEM TOOLS | LOCAL USERS AND GROUPS | USERS | ORIS-SERVICE | right-click, PROPERTIES | MEMBER OF.

Make sure to save files (e.g. color tables) to folders which are allowed to be accessed by users without administrative rights. We recommend the folder ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\.

Technical Requirements

The following information does not claim to be exhaustive. We assume no liability for its correctness. If you need help, CGS is glad to assist you.

There are some basic requirements for a successful communication between Web Server and Client. A detailed discussion would be beyond the scope of this document. We will therefore confine ourselves to recommendations for two typical Internet access scenarios:

- DSL router
 - Dynamic (not static) IP address
 - Firewall integrated into router
 - Low upload bandwidth, high download bandwidth
- Dedicated leased line
 - Static IP address
 - Router and firewall between Internet and LAN
 - High symmetrical bandwidth for upload and download

In this context 'IP address' stands for a public IP address assigned by an Internet service provider. It should not be confused with the (private) LAN IP address which is assigned to a computer in the local network.

DNS Name for Web Server

The public IP address which allows ORIS Flex Pack//Web to be accessed from the Internet must be assigned to a DNS name. This is a name which can be entered into the address line of the web browser. A DNS name is also referred to as a *fully qualified domain name*.

To get a DNS name, do the following:

- If you have a static public IP address, register the DNS name in the Domain Name System (DNS). You can also commission your Internet service provider with the DNS name registration.
- If you do *not* have a static public IP address, use the service of a DynDNS provider. For more details refer to *Addressing DSL Routers* (see below).

Server Configuration

The ORIS Flex Pack//Web Server is implemented as a 'name-based virtual host'. Therefore, the Web Server needs to know its own DNS name in order to respond to requests from the Internet. To make the name known, enter it into the configuration file of the Apache Web Server.

This file is named `httpd.conf` and resides in the following directory on the computer on which ORIS Flex Pack//Web was installed:

```
...\Program Files\Apache Group\Apache2\conf\
```

Open this file with any text editor such as Notepad. Do not use a word processing system such as Word. Before making any changes you should make a backup copy of the configuration file. Note that there are backup copies created automatically in the same directory (with additions to the file name such as `_old`).

Scroll down to the end until you find the `<VirtualHost *:80>` section. It contains the instruction `ServerName colorserver.example.com`. Replace `this-server.example.com` with the DNS name of the Web Server.

Changing the Port Number

By default, ORIS Flex Pack//Web Server listens on port 80. If this port is used for a different purpose in your company, you can change the port as follows:

1. Open the following file with a text editor:

```
...\Program Files\Apache Group\Apache2\conf\httpd.conf
```
2. Replace all instances of the port number 80 with the new port number. Search for the strings `Listen 80` and `:80`.
3. Save this file.
4. Select **START | RUN**, type **regedit** and press **ENTER**.
5. Select the key `HKEY_CURRENT_USER\Software\CGS\ORIS FLEX PACK WEB`.
6. Inside this key, create a new key named `Redirect`.
7. Create a new string value named `Home` for the new key.
8. Enter the data `http://localhost:nn/flexpack/` for this string value, where `nn` is the new port number.
9. Restart the Apache2 service.

Router Configuration

You have to define a port forwarding rule for your router. Requests to port 80 (HTTP) coming from the Internet must be forwarded via the local network to the computer on which ORIS Flex Pack//Web is installed. Use the computer's LAN IP address to specify the forwarding destination.

It is sufficient to forward requests to port 80 only. Do not specify forwarding for all ports. This would put your computer at risk unnecessarily.

Port forwarding can only work correctly if the LAN IP address of the destination computer remains the same all the time. It is therefore important to set the LAN connection of the computer on which ORIS Flex Pack//Web was installed to a static LAN IP address. Do not have the address assigned automatically by a DHCP server. Such addresses are likely to change.

Addressing DSL Routers

Public IP addresses used with dedicated leased lines are usually static, whereas IP addresses used with DSL routers are assigned dynamically by the Internet service provider. This means that the IP address changes from time to time, usually every 24 hours. This would actually mean that it is impossible to use a DNS name for the Web Server.

However, this problem can be solved using a so-called DynDNS service. This service is available under <http://www.dyndns.com/> for example.

Select a DNS name and register it once at the DynDNS service. Then configure your DSL router in a way that it automatically transmits the current public IP address to the DynDNS service. Now the selected DNS name is always resolved to the current IP address of the DSL router.

We recommend to use DSL routers which support dynamic DNS and one of the DynDNS services that are listed in your router software.

DSL Bandwidth

Internet connection via DSL is usually configured for receiving data at high speed (download). However, the speed used for sending data (upload) is significantly lower.

If the Web Server is accessed by a large number of client, upload speed may decrease even more. As a result, the screen may be updated very slowly on the client side.

DSL bandwidth may be sufficient in order to test a new ORIS Flex Pack/ /Web installation or to merely track and monitor jobs. To use the software professionally with a large number of files or clients, we recommend a dedicated leased line with a large upload bandwidth.

Note on HTTPS

It would also be possible to use HTTPS for the communication between Web Server and Client. This is a transfer protocol similar to HTTP which uses encryption. Data transfer is slower if encryption is used.

Communication via HTTPS would require additional measures and configuration changes including the following:

- Considering port 443 in addition to port 80
- Changes to the router and Web Server configuration
- Authentication certificates for the Web Server

Please contact CGS if you need more information.

Preventing Remote Access

The following information applies to environments in which ORIS Flex Pack/ /Web is used on the local computer only.

For security reasons you may want to block any remote access in such environments, i.e. access to the ORIS Flex Pack/ /Web Server via local network or Internet.

To do so, edit the configuration file of the Apache Web Server:

1. Locate the Apache configuration file `httpd.conf`. It resides in the directory `...\Program Files\Apache Group\Apache2\conf\`.
2. Make a backup copy of this file.

Note that there are backup copies created automatically in the same directory (with additions to the file name such as `_old`).
3. Open `httpd.conf` with a text editor such as Notepad. Do not use a word processing system such as Word.
4. Search for the text `Listen 80`. Replace it with `Listen 127.0.0.1:80`.
5. Close and save the configuration file.
6. Stop and restart the Apache service.

Now the Apache service will no longer respond to requests coming in from the network.

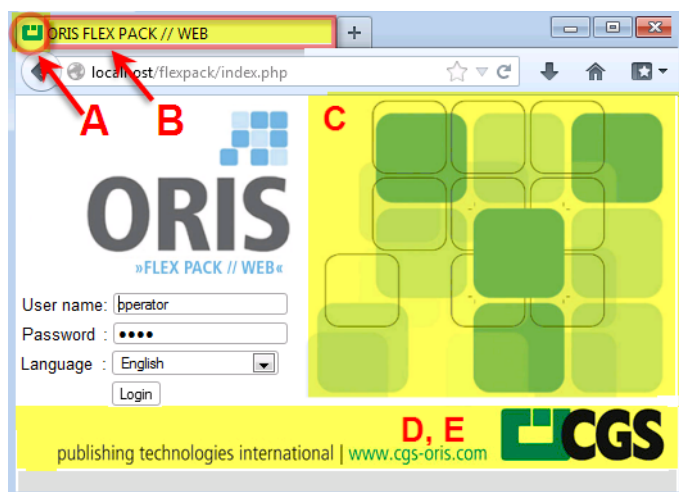
Customizing Login Screen

The login screen of the ORIS Flex Pack//Web Client application can be customized to match your preferences or corporate identity.

You can modify the page elements listed below. The figure below shows where these elements are located.

A	Web site icon (favicon)
B	Page title displayed on tab or title bar of browser window
C	Large background image
D	Small image
E	Hyperlink to corporate web site
F	Page meta data (description tag)

Fig. 17-7 Customizable Login Screen Elements



Customizing Images

Replace the following images in the directory ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Color Server\\htdocs\\flexpack\\:

File path	(see Fig. 17-7)
favicon.ico	A
\\assets\\std\\img\\login_ci_bg.jpg	C
\\assets\\std\\img\\login_ci_logo.jpg	D

Note: Currently these images will be overwritten when installing a new software version. Make sure to create a backup copy of your customized images before updating ORIS Flex Pack//Web.

Customizing Page Title, Hyperlink, Meta Data

Create a configuration file using a text editor such as Windows Notepad. Save this file under the name `preferences.ini` to the installation directory ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Color Server\\htdocs\\site\\.

This configuration file can consist of four lines. Each line starts with a keyword followed by an equality sign and your own text. Example:

Contents of configuration file	(see Fig. 17-7)
PRODUCT_NAME = Remote Color Proofer	B
MANUFACTURER_HOMEPAGE = sample.company.com	E
PRODUCT_TOPIC = Remote proofing and more MANUFACTURER_NAME = Sample Company Ltd.	F

All specifications in this configuration file are optional. The characters are not case sensitive. Use UTF-8-encoding for this file if there are special characters such as German umlauts. Specify the web address without the `http://` prefix. The prefix will be added automatically.

18 Halftone Proofing

See also *Halftone Proofing* (page 7-1).

Dot Proofing Functions

Proofing Halftone Data

ORIS Flex Pack//Web allows you to proof halftone data, i.e. the output files from a RIP. This is supported for 1-bit files with TIFF or LEN format. LEN is the output format of FlexRIPs from Esko.

The separation files are combined into a single print job if they follow certain file naming conventions (see page 18-9). Many file name patterns including those of *Harlequin RIP* are supported. You can also print individual color separations in the respective colors.

This proofing method is referred to as SCREENDOT. It requires a separate software license (see page 1-9).

Proofing RIP files provides increased reliability, because you are proofing the same data that will go to press (ROOM – RIP once, output many).

Creating Halftone Proofs from CT Data

ORIS Flex Pack//Web can also create halftone dot proofs from continuous tone data. The files are screened automatically with a user-defined dot proofing resolution. This proofing method is referred to as SCREENDOT PLUS. It requires a separate software license (see page 1-9).

Supported Printers

Halftone dot proofing (SCREENDOT and SCREENDOT PLUS) is supported for specific printers only. The printers are listed in the online help file. Measurement devices embedded in Canon and Epson printers are also supported.

Maximum Number of Color Channels

A maximum of 16 color channels is supported for the SCREENDOT and SCREENDOT PLUS method (4 process colors, 12 spot colors).

If N-channel ICC profiles (e.g. Hexachrome) are used for scatter proofing, the limitation applies to the *scatter proof form*. The maximum number of supported spot colors is 28 minus non-CMYK process colors.

- » RELATED TOPICS:
 - SPOT COLORS IN PDF FILES (PAGE 22-3)
 - SCATTER PROOFING (PAGE 20-1)

Test Charts, Color Bars, RFP Files

The test charts, color bars and reference printer profiles (RFP files) in ORIS Flex Pack/Web's installation directory can only be used for proofing continuous tone data.

Proofing halftone data (SCREENDOT)

This printing method requires the use of *screened* 1-bit test charts and color bars as well as special RFP files created with these screened test charts. These files have to be created by the user.

Creating halftone proofs from CT data (SCREENDOT PLUS)

This printing method requires the use of special RFP files created for this method.

Use the CT test charts and color bars provided in the installation directory. The program ensures automatically that the proof data and color bar are screened with the same settings.

- » RELATED TOPICS:
 - RFP FILES (PAGE 14-3)
 - CREATING REFERENCE PRINTER PROFILES (PAGE 23-1)

About Screening

Create the screened test charts and color bars from the files in the following installation directories:

Test charts:	...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\ The following files are usually recommended: • Linearization: Color 21 Step xxx.pdf • Calibration and color matching: ECI2002 CMYK xxx.pdf • Ink limiting: Ink Limit Chart xxx.tif
Color bars:	...\\Program Files\\CGS\\Common Files\\Extras\\Proofing Bars\\

Screen these files with the same RIP settings that were used for screening the jobs. These settings include resolution, screen ruling, screen angle and dot shape. Color bars can only be printed with accurate colors if the same RIP settings are used for screening.

The screened test charts and color bars must have the same size and geometry as the original halftone files. Do not scale, mirror or rotate them.

When using the scatter proof function (see page 20-1), all 1-bit files and the color bar must have the same image resolution.

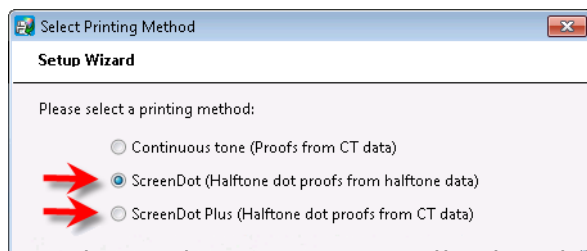
Setting up Output Queues

Use the Setup Wizard  to create an output queue for halftone dot proofing. Below are some important hints. See also page 13-1.

Printing Method

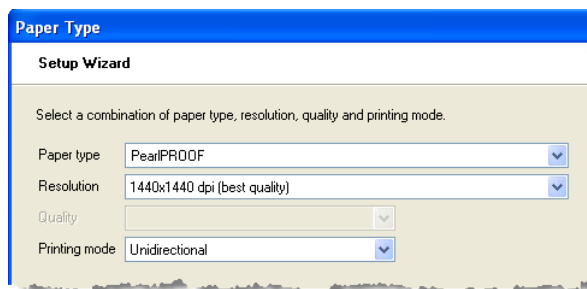
Select SCREENDOT (proofing halftone data) or SCREENDOT PLUS (creating halftone proofs from CT data).

The printing method cannot be changed subsequently (). If 1-bit files are added to a CONTINUOUS TONE output queue, the color separations will not be combined, but printed as separate jobs.



Printing Resolution and Mode

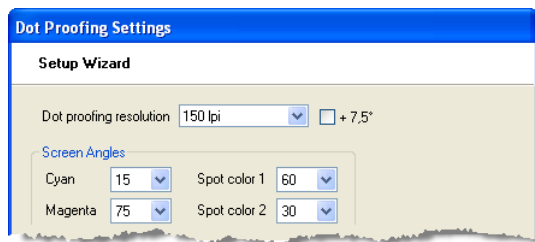
To achieve maximum quality, use the highest printing resolution possible. We recommend to use the unidirectional printing mode.



Screen Ruling and Angle

When creating halftone proofs from CT data (SCREENDOT PLUS), specify the dot proofing resolution (screen ruling) and the screen angles. The dot shape is automatically set to round Euclidean.

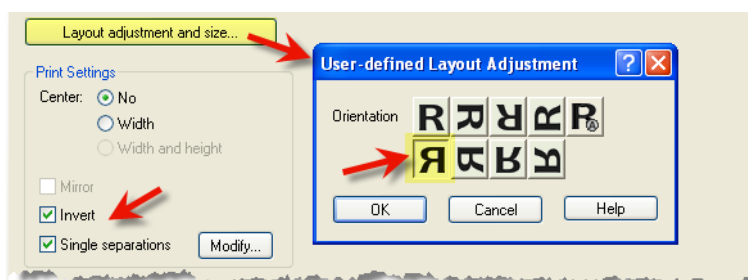
The screen angle specified for BLACK is also applied to the white separation (if a printer uses white ink).



Additional Queue Settings

Select the output queue and click  if you want to modify the settings made with the Setup Wizard. This opens the SETTINGS dialog. The PRINT LAYOUT tab provides additional settings for 1-bit files:

- Click on LAYOUT ADJUSTMENT AND SIZE to mirror wrong-reading 1-bit files.
- Enable the INVERT option if positive images have been erroneously marked up as negative images.
- Use the SINGLE SEPARATIONS option to print individual color separations in the respective colors.



- » RELATED TOPICS:
- HOW TO MODIFY JOB OR QUEUE SETTINGS (PAGE 13-7)
 - SELECTING OUTPUT QUEUES (PAGE 16-1)

Printing Halftone Data

Halftone jobs consist of multiple 1-bit files, one for each color separation. These files are combined into a print job if they follow certain file naming conventions (see page 18-9). Two methods of starting halftone jobs are supported: watched folders and Drop Area.

1-bit files are not combined into a single job, but printed separately in grayscales in the following cases:

- The  command (PRINT dialog) is used. – or
- An output queue set up for CONTINUOUS TONE data is used.

Printing Halftone Data via Watched Folders

Add the 1-bit files to the watched folder of a SCREENDOT output queue. The separation files will be combined into a job as soon as the waiting time has elapsed. This is the time during which the file contents has to remain unchanged. When the waiting time has elapsed, the separation files will be combined into a job, even if some of the files are missing.

The order in which the files are added to the watched folder does not matter.

Refer to *Output via Watched Folders* (page 15-1) for more details.

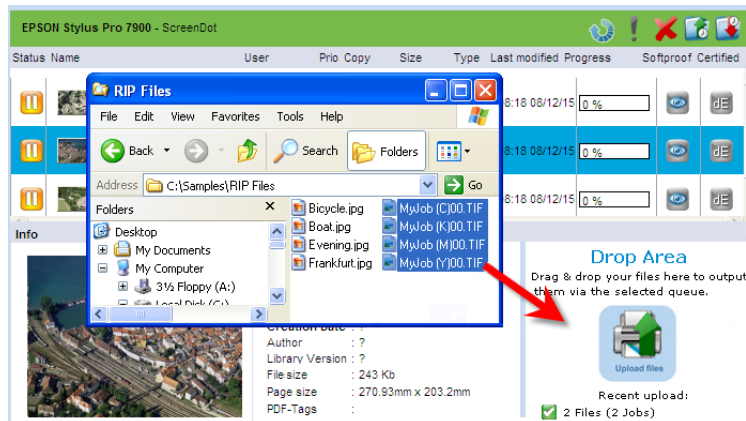
Printing Halftone Data via Drop Area

Select a SCREENDOT output queue, then drag the 1-bit files onto ORIS Flex Pack/Web's DROP AREA.

Make sure to upload all separation files *in one go*. Separation files that are uploaded separately will not be combined into a job.

Refer to *Output via Drop Area* (page 15-3) for more details.

Fig. 18-1 Dragging 1-bit Files onto the Drop Area



Handling Spot Colors

A half-tone print job may include separation files with spot color names provided in PANTONE®¹ or HKS libraries and also names of corporate spot colors, such as CocaColaRed or MilkaPurple. There may also be LEN files with non-standard spot color names that are not listed in the special table provided by Esko. The following explains how to deal with such colors.

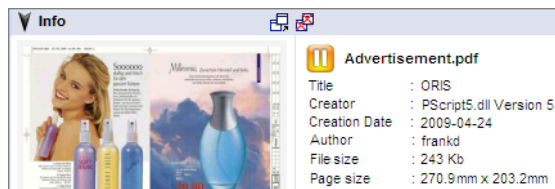
Color in Print Preview

To ensure that a spot color is displayed correctly in the job preview, make sure to define it in one of the ORIS spot color libraries (*.osc) in the installation directory ...\\Program Files\\CGS\\Common Files\\CC\\. Use the file Private.osc to define corporate or non-standard spot colors.

Open Private.osc using a text editor such as Windows Notepad. Enter the spot color names and CMYK equivalents according to the instructions provided in the file itself.

Note: The CMYK equivalence values defined in the OSC file are used if these values are not defined in the document itself. If the CMYK equivalents of a spot color are unknown, the color will be displayed in *green* in the job preview. A different shade of green is used for every unknown color.

Fig. 18-2 Job Preview Image



- » RELATED TOPICS:
- PREVIEW AND LOG (PAGE 16-13)

Color in Print Output

To ensure that a spot color is simulated correctly on your printer, make sure to define it in the spot color correction file (SCG) of the print queue.

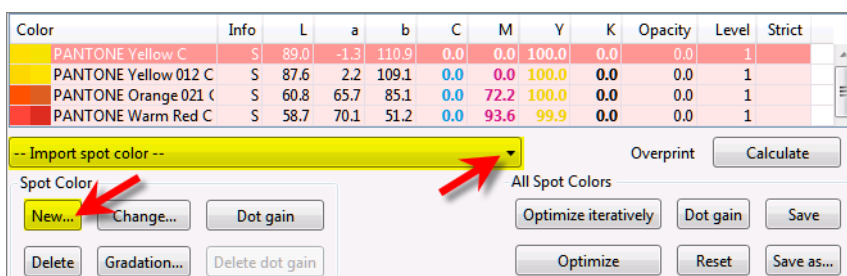
1. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

1. Click , select the SPOT COLOR CORRECTION tab and click EDIT.
2. Select a spot color library from the -- IMPORT SPOT COLOR -- list, select the colors and import them.
3. To define a corporate or non-standard spot color, click NEW, enter the color name and define the CMYK device colors.

SCG files specify the CMYK color to be used for your printer based on the Lab values of the spot colors and the printer characterization file (e.g. RFP file).

Unknown spot colors which are not defined in the SCG file are printed as they appear in the job preview, i.e. with their CMYK equivalents. They are printed in a *green* tone, for example, if the CMYK equivalents are unknown, e.g. because the color is not defined in any OSC file, either.

A message stating that the CMYK equivalents have been used for the spot color is additionally printed on the page.



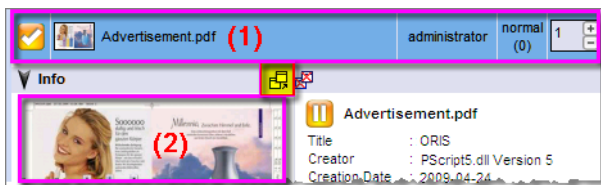
- » RELATED TOPICS:
- SPOT COLOR SIMULATION (PAGE 22-1)

Mapping Unknown Spot Color Names

If a print job contains unknown spot color names which are not defined in the spot color correction file (SCG), you can map these names to other spot colors. This can be done easily using the *Print Job Editor*.

1. Select the print job in the job list.
2. Click the job preview or the  button.

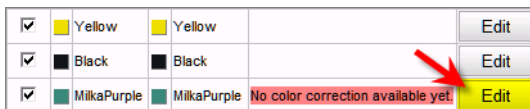
An enlarged version of the preview opens in a new window.



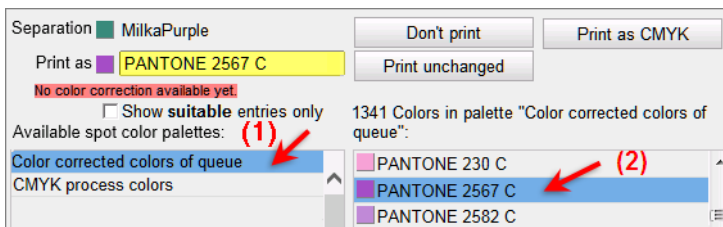
- Click on EXAMINE, SHOW AND CHANGE JOB SEPARATIONS underneath the preview image.



- Click the EDIT button next to the unknown spot color. The annotation *No spot color correction available yet* is displayed for this color.



- Select a spot color from the SCG file of the output queue. To do so, click on COLOR CORRECTED COLORS OF QUEUE, then click on the list.



- Click **OK** to close the dialog.

- » RELATED TOPICS:
- SPOT COLOR SIMULATION (PAGE 22-1)
 - MODIFYING JOB SEPARATIONS (PAGE 16-15)
 - REPLACING AND OMITTING SPOT COLORS (PAGE 22-28)

Elliptical Dots

Printing halftone data with elliptical dots on Canon printers may produce color shifts if the output is rotated 90°.

Naming Conventions for 1-bit Files

The individual separation files can only be combined into a print job if certain file naming conventions are used. ORIS Flex Pack//Web supports various file name patterns of commonly used RIP programs.

Note: Some file naming conventions do not support spot colors. If spot colors are used, make sure your RIP is set up to create suitable file names.

See also *Harlequin RIP Settings* (page 18-14).

Note: The letters `Jobname` in the file name patterns listed below stand for the actual job name. Job names must consist of at least two characters. The spot color names are only examples.

Harlequin RIP

A

— Page 1 —

- `JobnameC00.tif`
- `JobnameM00.tif`
- `JobnameY00.tif`
- `JobnameK00.tif`
- `JobnamePANTONE 230 C00.tif`

— Page 2 —

- `JobnameC01.tif`
- `JobnameM01.tif`
- `JobnameY01.tif`
- `JobnameK01.tif`
- `JobnamePANTONE 230 C01.tif`

Alternative names for process colors are supported (see page 18-12).

B

— Page 1 —

- `Jobname (C) 00.tif`
- `Jobname (M) 00.tif`
- `Jobname (Y) 00.tif`
- `Jobname (K) 00.tif`
- `Jobname (PANTONE 230 C) 00.tif`

— Page 2 —

- `Jobname (C) 01.tif`
- `Jobname (M) 01.tif`
- `Jobname (Y) 01.tif`
- `Jobname (K) 01.tif`
- `Jobname (PANTONE 230 C) 01.tif`

Alternative names for process colors are supported (see page 18-12).

C

— Page 1 —

- `TIFF00.tif`
- `TIFF01.tif`
- `TIFF02.tif`
- `TIFF03.tif`

— Page 2 —

- `TIFF04.tif`
- `TIFF05.tif`
- `TIFF06.tif`
- `TIFF07.tif`

The characters `TIFF` are literals which stand for themselves. This file naming convention does not support spot color separations.

D

— Page 1 —

- xxxxxx00.tif
- xxxxxx01.tif
- xxxxxx02.tif
- xxxxxx03.tif

— Page 2 —

- xxxxxx04.tif
- xxxxxx05.tif
- xxxxxx06.tif
- xxxxxx07.tif

The letters xxxxxx stand for job names consisting of any characters, but no more than 6. This file naming convention does not support spot colors.

Trueflow RIP

A

— Page 1 —

- Jobname00.C
- Jobname00.M
- Jobname00.Y
- Jobname00.K
- Jobname00.PANTONE 230 C

— Page 2 —

- Jobname01.C
- Jobname01.M
- Jobname01.Y
- Jobname01.K
- Jobname01.PANTONE 230 C

Alternative names for process colors are supported (see below).

B

- Jobname_C.tif
- Jobname_M.tif
- Jobname_Y.tif
- Jobname_K.tif
- Jobname_PANTONE 230 C.tif

C

- Jobname_Cyan.tif
- Jobname_Magenta.tif
- Jobname_Yellow.tif
- Jobname_Black.tif
- Jobname_PANTONE 230 C.tif

Esko FlexRIP

A

- Jobname_C.len
- Jobname_M.len
- Jobname_Y.len
- Jobname_K.len
- Jobname_204.len

B

- Jobname_Cyan.len
- Jobname_Magenta.len
- Jobname_Yellow.len
- Jobname_Black.len
- Jobname_204.len

Prinergy RIP

- Jobname.**C**.tif
- Jobname.**M**.tif
- Jobname.**Y**.tif
- Jobname.**K**.tif
- Jobname.**PANTONE 230 C**.tif

Alternative names for process colors are supported (see below).

StudioRIP

- Jobname **C**.tif
- Jobname **M**.tif
- Jobname **Y**.tif
- Jobname **K**.tif
- Jobname **PANTONE 230 C**.tif

Alternative names for process colors are supported (see below).

ORIS File Name Pattern

— Page 1 —

- Separation-**Cyan**-00.tif
- Separation-**Magenta**-00.tif
- Separation-**Yellow**-00.tif
- Separation-**Black**-00.tif
- Separation-**PANTONE 230 C**-00.tif

— Page 2 —

- Separation-**Cyan**-01.tif
- Separation-**Magenta**-01.tif
- Separation-**Yellow**-01.tif
- Separation-**Black**-01.tif
- Separation-**PANTONE 230 C**-01.tif

The characters `Separation` are literals which stand for themselves. The page number characters `-00` are not necessary for single-page jobs.

If this file naming convention is used, there must not be any other files in the directory. Otherwise the separation files cannot be combined.

Alternative Process Color Names

Many file name patterns support alternatives of the process color name in addition to C, M, Y, K. There are various abbreviations and localized forms which are listed below. These names are *not* case sensitive.

C	M	Y	K
C	M	Y	B
Cyn	Mag	Yel	Blk

Cya	Mag	Yel	Key
Cyan	Magenta	Giallo	Nero
Cyan	Magenta	Gelb	Schwarz
Cyan	Magenta	Yellow	Black

Renaming 1-bit TIFF Files Manually

Using batch files in the installation path, you can conveniently rename any 1-bit TIFF file according to the `Separation-<color>.tif` pattern:

```
Separation-Cyan.tif
Separation-Magenta.tif
Separation-Yellow.tif
Separation-Black.tif
```

This may be useful for testing the dot proofing functionality on files with unsupported file names. The batch files cannot be used for renaming spot color separations.

Proceed as follows:

1. In Windows Explorer, make sure hidden files are displayed, then select the following directory:
Windows 7, Vista, Server 2008:
...\\Users\\<user name>\\AppData\\Roaming\\Microsoft\\Windows\\SendTo
Windows XP:
...\\Documents and Settings\\<user name>\\SendTo
2. Also select the files `Separation-Cyan.bat`, `Separation-Magenta.bat`, `Separation-Yellow.bat` and `Separation-Black.bat`. These files reside in the installation path ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Hotfolder Manager\\.
3. Create a shortcut to these batch files in the `SendTo` directory.
To do so, right-click the batch files and drag them to the `SendTo` directory. When you release the mouse button, select **CREATE SHORTCUT(S) HERE** on the context menu (see Fig. 18-3).
4. To rename a 1-bit TIFF file to `Separation-Cyan.tif`, for example, select this file in Windows Explorer, press the right mouse button and select **SEND To | SHORTCUT TO SEPARATION-CYAN.BAT** on the context menu. The file will be renamed automatically (see Fig. 18-4).

Fig. 18-3 Creating Shortcuts to Batch Files

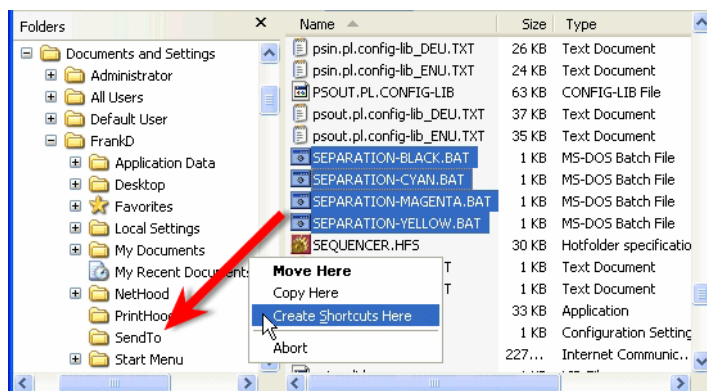
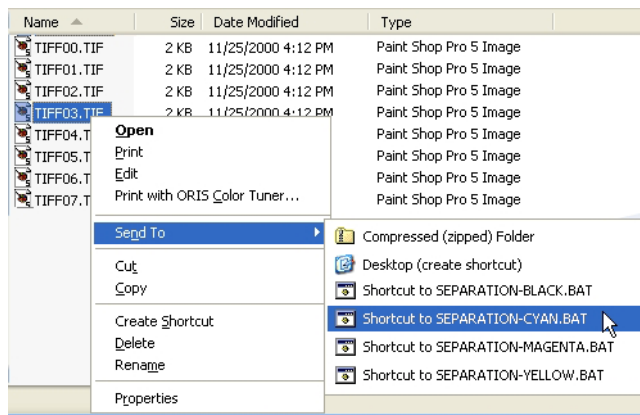


Fig. 18-4 Renaming 1-bit Tiff Files Using Batch Files



Harlequin RIP Settings

If a RIP is set up accordingly, the output files can be proofed automatically by ORIS Flex Pack/Web via watched folders (see page 15-1). The following shows how to set up *Harlequin RIP* in this way.

1. Click  to open the PAGE SETUP MANAGER.
2. Click NEW to open the NEW PAGE SETUP dialog (see Fig. 18-5).
3. Select TIFF from the OUTPUT DEVICE list.
4. Click CONFIGURE DEVICE to open the TIFF CONFIGURATION dialog (see Fig. 18-5).

5. Into the input box at the top, enter the path name of the watched folder monitored by ORIS Flex Pack//Web. You can also click the FOLDER button to browse for this directory.
6. Enable or disable the following options, depending on the file name pattern to be used for the RIP output files (see page 18-9).

	USE JOBNAME AS STEM	USE JOBNAME UNCHANGED	STEM
TIFF00.tif *	off	irrelevant	enter TIFF
xxxxxx00.tif *	off	irrelevant	max. 6 char.
JobnameC00.tif	on	off	irrelevant
Jobname (C)00.tif	on	on	irrelevant

* These patterns cannot be used if a job contains spot colors.

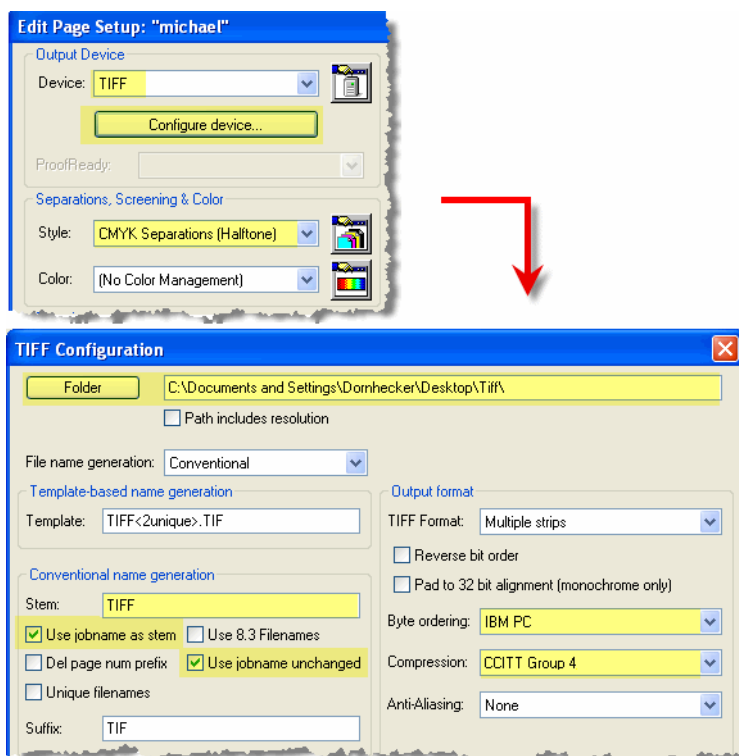
You can enable the DEL PAGE NUM PREFIX option to suppress the page number prefixed to the file name of multi-page jobs.

7. Make sure the SUFFIX input box contains the characters **TIF**. Set the BYTE ORDERING to **IBM PC**. You can use any COMPRESSION you like.
8. Select **OK** to close the dialog. You are back in the NEW PAGE SETUP dialog.
9. Select CMYK SEPARATIONS (HALFTONE) from the STYLE list displayed under SEPARATIONS, SCREENING & COLOR.
10. Click the  button to the right of this list. This opens the SEPARATIONS MANAGER dialog.
11. Click the list entry CMYK SEPARATIONS (HALFTONE).
12. Click the EDIT button to open the EDIT STYLE FOR... dialog. Specify the screen rulings (FREQUENCY), screen angles and dot shapes you want.

We recommend to use a screen ruling of 152.4 lpi (60 lpcm) to simulate offset printing.
13. It is advisable to set the PRINT? property of the (OTHER COLORS IN JOB) separation to NOT BLANK. Likewise, you can choose to set any or all colors to NOT BLANK in order to suppress blank separations, if you process jobs with less than a full set of process colors.
14. We also recommend to enable the GENERATE EXTRA GRAY LEVELS option and to limit the number of distinct gray levels to **2048**. You should also enable the USE HARLEQUIN PRECISION SCREENING option.
15. Click **OK** twice to return to the NEW PAGE SETUP dialog. Leave all options at their default values.

16. Click **SAVE AS**, enter a name for the new Page Setup, then click **OK**.

Fig. 18-5 HQ RIP Settings for 'Jobname (C)00.tif' Name Convention



19 Soft Proofing

ORIS Flex Pack//Web can automatically create color-matched low-resolution PDF/X-3 files for your print jobs. These files are displayed with accurate colors in Adobe Acrobat on any calibrated monitor.

An ORIS Flex Pack//Web plug-in verifies whether the file is an ORIS soft proof, Acrobat's color management is set correctly and the monitor profile is up to date and suited for simulating the target color space.

The PDF/X file can be stamped as 'approved' or 'rejected' using a stamp provided by the plug-in. This information is created as a trackable Acrobat annotation which includes the date and user ID.

Having stamped the document, the reviewer sends the stamp information back to ORIS Flex Pack//Web. The job will be released and can be printed if the document has been approved.

Requirements

Adobe Acrobat

Verifying soft proofs requires Adobe Acrobat Version 8 or higher, Standard or Professional edition. Adobe Reader cannot be used.

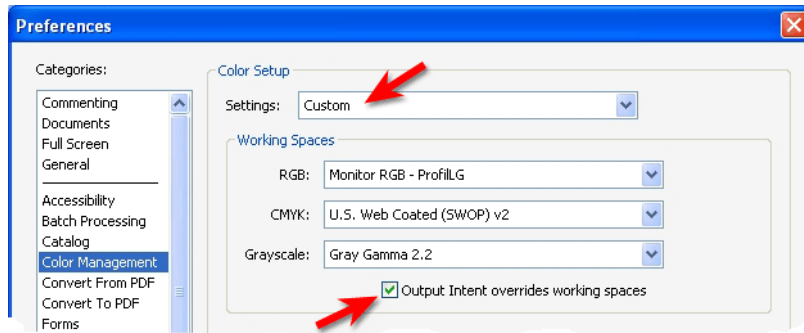
Configure the program as described below.

Acrobat Color Management Settings

1. In Adobe Acrobat, select the PREFERENCES command on the EDIT (Windows) or ACROBAT (Mac OS) menu.
2. In the PREFERENCES dialog, click on COLOR MANAGEMENT.
3. Enable color management by selecting any setting except COLOR MANAGEMENT OFF (see Fig. 19-1).

4. In Acrobat 8, enable the option OUTPUTINTENT OVERRIDES WORKING SPACES.

Fig. 19-1 Acrobat Color Management Settings



Acrobat Setting for Internet Explorer

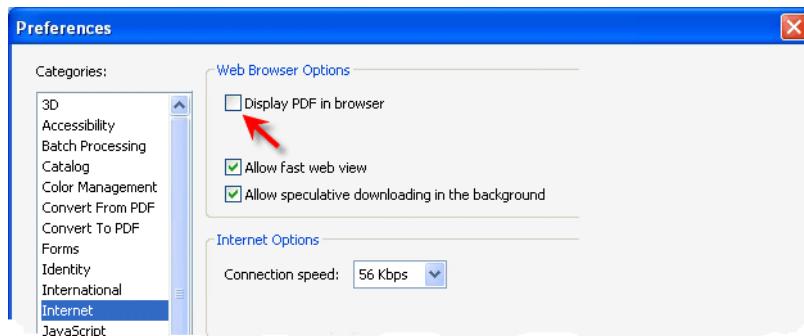
Soft proof PDF files must open in Acrobat and not in the web browser window. Configure Acrobat accordingly if you work with the following:

- ORIS Flex Pack//Web Server – or:
- ORIS Flex Pack//Web Client running on Internet Explorer

Proceed as follows:

1. In Adobe Acrobat, select the PREFERENCES command on the EDIT (Windows) or ACROBAT (Mac OS) menu.
2. In the PREFERENCES dialog, click on INTERNET.
3. Disable the DISPLAY PDF IN BROWSER option.

Fig. 19-2 Acrobat Settings for Internet Explorer



Web Browser Setup

Soft proof PDF files must open in Acrobat and not in the web browser window. Configure your web browser accordingly if ORIS Flex Pack//Web Client runs on a web browser different to Internet Explorer.

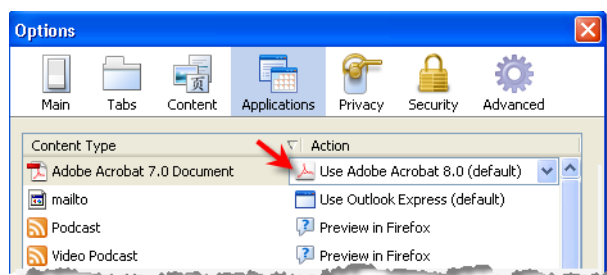
Mozilla Firefox

1. Select TOOLS | OPTIONS.
2. Click on the APPLICATIONS tab.
3. In the CONTENT TYPE column, select ADOBE ADOBE DOCUMENT.
4. In the ACTION column, select USE ADOBE ADOBE.

Safari

Safari browsers are usually set to open PDF files in Acrobat by default. However, this setting doesn't seem to be honored in Safari Version 5.1 and later. You can get around this problem by opening the PDF file in a special way using the ORIS Flex Pack//Web Client (see page 19-9).

Fig. 19-3 Firefox Settings for Adobe Acrobat



Acrobat Plug-in

Verifying soft proofs also requires the ORIS Soft Proof plug-in for Adobe Acrobat. The plug-in version to use depends on your Acrobat version:

Plug-in	Acrobat
Version 3.0.5	Version 10, 11, and higher
Version 3.0.4	Version 8 and 9

ORIS Soft Proof plug-ins are free of charge. They can be downloaded from the CGS website <http://www.cgs-oris.com>. Install the plug-in as described below.

Plug-in Installation: Windows

The ORIS Soft Proof plug-in is named `SoftProof.api`. Copy this file to the `plug_ins` folder in the Acrobat installation path. Usually this is the folder `...\Program Files\Adobe\Acrobat x.x\Acrobat\plug_ins\`.

The file name may contain a language code such as `_jpn` for Japanese. The user interface language is English if this code is missing. German users should additionally copy the file `SoftProof.DEU` to the `plug_ins` directory. This file is included in the ZIP file that contains the plug-in.

The language used by Acrobat depends on the *Regional Options* currently selected on your computer.

Plug-in Installation: Mac OS X

The ORIS Soft Proof plug-in is named `SoftProof.acroplugin`. Do the following to install this plug-in:

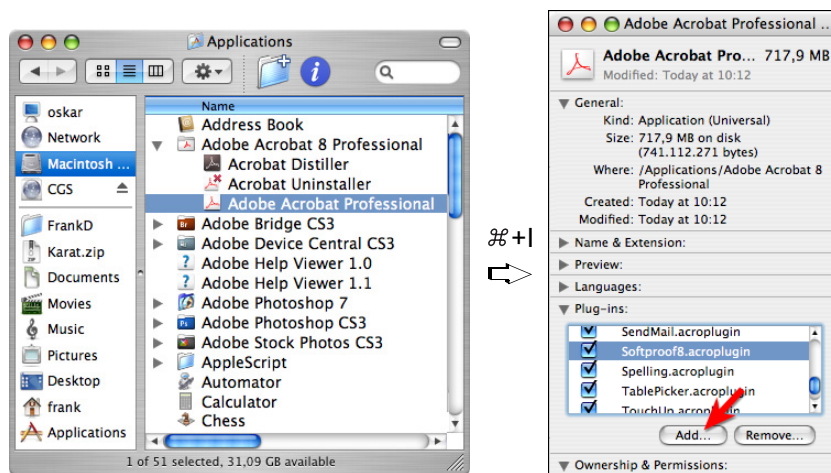
Mac OS 10.6 and Higher

1. CTRL-click the Acrobat application file in the Macintosh *Finder* window.
2. Select **SHOW PACKAGE CONTENTS** on the context menu. This opens a new *Finder* window which contains a `Contents` folder.
3. Open the `Contents` folder and the `Plug-ins` folder located inside it.
4. Copy the `SoftProof.acroplugin` file to the `Plug-ins` folder.

Mac OS Versions Prior to 10.6

1. Click on the Acrobat application file in the Macintosh *Finder* window.
2. Press `⌘+I` or select **FILE | GET INFO** to display the file information window (see Fig. 19-4).
3. In this window, click on **PLUG-INS** to open the list of the Acrobat plug-ins already installed.
4. Click on the **ADD** button and select the ORIS Soft Proof plug-in. It will be added to the Acrobat program.

Fig. 19-4 Adding Plug-ins to Acrobat



Monitor Calibration

The monitor should be calibrated and profiled. The ICC profile must be set as the computer's default profile for your monitor. These tasks can be accomplished easily using ORIS Certified Monitor.

The monitor profile must not be older than specified in the soft proof PDF file. Usually the maximum age is 30 days, but this may be set differently.

The monitor's color gamut must be large enough. By default, the target gamut must be covered by at least 80% and the max. delta E must be lower than 12. However, these values are configurable.

Assigning a Default Monitor Profile

If ORIS Certified Monitor is used for calibrating and profiling the monitor, the ICC profile is automatically set as your computer's default monitor profile.

Otherwise you may have to do this manually as described below. The commands differ according to the operating system and the view selected for the START menu and CONTROL PANEL.

Windows 7 and Vista

1. START | (SETTINGS) | CONTROL PANEL.
2. APPEARANCE AND PERSONALIZATION | (PERSONALIZATION) | ADJUST SCREEN RESOLUTION. Or: PERSONALIZATION | DISPLAY SETTINGS.

3. ADVANCED SETTINGS | COLOR MANAGEMENT. Click on COLOR MANAGEMENT button. Enable USE MY SETTINGS FOR THIS DEVICE option.
4. Click on ADD. Select ICC profile. Click on SET AS DEFAULT PROFILE.

Windows XP

START | (SETTINGS) | CONTROL PANEL | (APPEARANCE AND THEMES) | DISPLAY | SETTINGS | ADVANCED | COLOR MANAGEMENT. Click on ADD button. Select ICC profile. Click on SET AS DEFAULT.

Mac OS X

1. Copy the monitor profile to the following directory:
Macintosh HD:Library:ColorSync:Profiles:Displays.
2. Select  | SYSTEM PREFERENCES.
3. Click on DISPLAYS and then on COLOR.
4. Click on the monitor profile.

HTTPS Authentication

The ORIS Flex Pack//Web Server can also be accessed via HTTPS, a secure transfer protocol that uses SSL encryption. If HTTPS is used, the web browser verifies the authenticity of the website. Browsers disallow SSL access to web sites with certificates that are not signed by well-known authorities.

For a successful authentication during soft proofing, you therefore have to perform – just once – the steps outlined below.

Windows

Start Microsoft Internet Explorer – even if you usually work with a different web browser. Log in to the ORIS Flex Pack//Web Server. Answer Yes if asked whether you want to trust the certificate. Then log out.

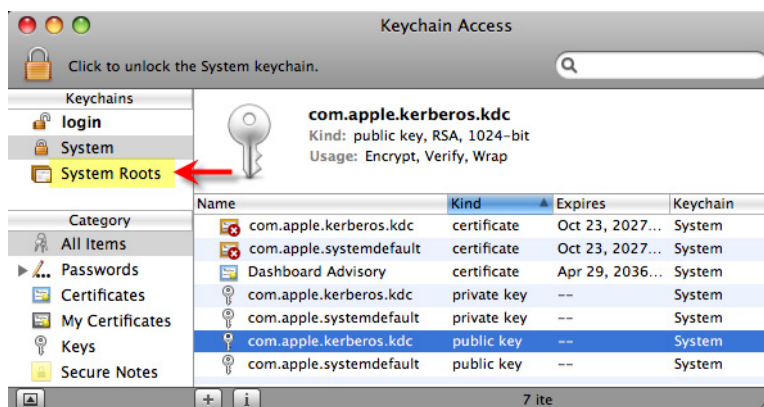
Alternatively, export the certificate from your favorite web browser and import it into Internet Explorer.

Macintosh

Start your favorite web browser and log in to the ORIS Flex Pack//Web Server. Answer Yes if asked whether you want to trust the certificate.

Drag the icon of the certificate to your Desktop. Start the KEYCHAIN ACCESS program (under /Applications/Utilities/) and import the certificate into the SYSTEM ROOTS section. Now Adobe Acrobat will also trust this certificate.

For more details refer to the Macintosh online help.



Creating Soft Proofs

To configure ORIS Flex Pack//Web for creating soft proof PDF files:

1. Select the output queue (see page 16-1) or the job (see page 16-8).
2. Click on  to open the SETTINGS dialog.
3. Click on the WORKFLOW tab (see also page 13-10).
4. Activate the SOFTPROOF ENABLED option (see Fig. 19-5).
5. Click on BROWSE and select the ICC output profile.

This is the profile that defines the color characteristics of the printing process to be simulated on the screen (output color space).

Note: Make sure this ICC profile defines the same target color space as that used for color-matching the job (see COLOR CORRECTION tab).

6. Activate the SOFTPROOF REQUIRED option.
7. Click on SOFTPROOF SETTINGS to open the dialog shown in Fig. 19-6.
Specify the output resolution of the low-res PDF file. Also specify the requirements for viewing the PDF file accurately on the screen (viewing status , e.g. the maximum age of the monitor profile).

When you start a job, the icon  appears as soon as the soft proof PDF file is available.

Fig. 19-5 Requesting a Soft Proof

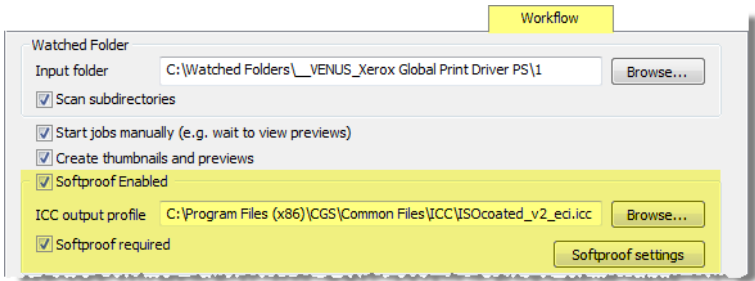
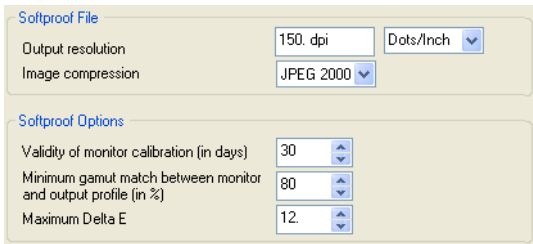


Fig. 19-6 Soft Proof Settings



Soft Proof Processing Status

ORIS Flex Pack//Web indicates the soft proof status on the right-hand side of the job list:

Status	Name	User	Prio	Copy	Size	Type	Last modified	Progress	Softproof Certified
	 Frankfurt.jpg	system	normal	(0)	1	279 Kb	jpeg	08:18 08/12/15	0 % 

Note: In ORIS Flex Pack//Web Client applications (web browser), this status may be hidden, if the user account has been set up accordingly (see page 17-3).

The soft proof status can be one of the following:

	No soft proof requested.
	Soft proof requested. A soft proof request has been specified for the job or output queue (see page 13-10). A low-resolution PDF file is being calculated.
	Soft proof PDF file available. The PDF file can be verified. Click on the icon to open the document in Adobe Acrobat (see page 19-9).

	Soft proof approved (colors) The PDF file was verified and approved in Acrobat. ORIS Flex Pack//Web will print the high-res data.
	Soft proof approved (contents only) The colors were displayed inaccurately in Acrobat. Reason: Uncalibrated monitor or color management set incorrectly in Acrobat. ORIS Flex Pack//Web will print the high-res data.
	Soft proof rejected. ORIS Flex Pack//Web will not print the high-res data.
	Error. No soft proof file created. Click on this icon for more details.

Verifying Soft Proofs in Acrobat

Opening Soft Proof Files

How to open soft proof PDF files in Adobe Acrobat:

1. Make sure Acrobat and your Web browser are setup correctly so that PDF files will open in Adobe Acrobat and not in the browser window.
For more details refer to page 19-2 and 19-3.

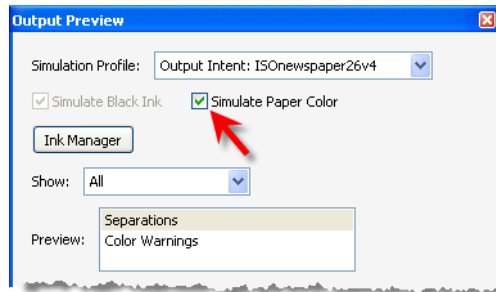
2. Click on  in ORIS Flex Pack//Web's job list.

Safari browsers (V5.1 and higher): SHIFT-ALT-click on . This copies the PDF file to the user's Downloads folder. Double-click the file in Safari's DOWNLOADS window to open it with Acrobat.

Status	Name	User	Prio	Copy	Size	Type	Last modified	Progress	Softproof	Certified
	 Frankfurt.jpg	system	normal (0)	1	279 Kb	jpeg	08:18 08/12/15	0 %		

3. In Acrobat, select ADVANCED | PRINT PRODUCTION | OUTPUT PREVIEW and enable the option SIMULATE PAPER COLOR. This option is only available in Acrobat Professional (not in the Standard edition).

Fig. 19-7 *Simulating Paper Color in Acrobat*



ORIS Soft Proof Toolbar and Menu

The soft proofing functions are available on the ORIS Soft Proof toolbar. In Acrobat Version 8 and 9 the functions are additionally available on the ADVANCED | ORIS SOFT PROOF menu.



Opening ORIS Soft Proof Toolbar

Acrobat Version 8 and 9

The ORIS Soft Proof toolbar is usually displayed automatically. You can show and hide it using a command on the VIEW | TOOLBARS menu.

Acrobat Version 10 (Acrobat X)

The ORIS Soft Proof toolbar is *not* displayed automatically. It can be opened in a separate window area on the right by doing one of the following:

- Click the TOOLS button at the top right of the Acrobat X main window.
- Select VIEW | TOOLS | PLUG-IN ORIS SOFT PROOF TOOLBAR.

To display the toolbar permanently, add it to Acrobat's QUICK TOOLS by doing one of the following:

- Right-click each of the toolbar buttons and select ADD TO QUICK TOOLS from the context menu.
- Select VIEW | SHOW/HIDE | TOOLBAR ITEMS | QUICK TOOLS. Select PLUG-IN ORIS SOFT PROOF TOOLBAR (under THIRD-PARTY PLUG-INS). Click on the right-pointing triangle in the center of the dialog.

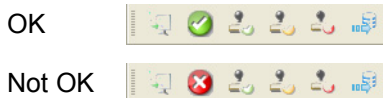
Toolbar Buttons

The buttons on the ORIS Soft Proof toolbar have the following meaning:

	Click for details about the ORIS Soft Proof plug-in such as the version number.
	Soft proof viewing status: OK
	Soft proof viewing status: not OK (e.g. uncalibrated monitor)
	Click to stamp the page as 'approved' (colors).
	Click to stamp the page as 'approved' (contents only).
	Click to stamp the page as 'rejected'.
	Click to send the information about which stamp was used to ORIS Flex Pack//Web.

Soft Proof Viewing Status

The ORIS Soft Proof toolbar indicates the overall viewing status. It shows whether the PDF file is viewed accurately on a color calibrated monitor. One of the following icons is displayed:



The status is set to  if *all* of the following conditions are met:

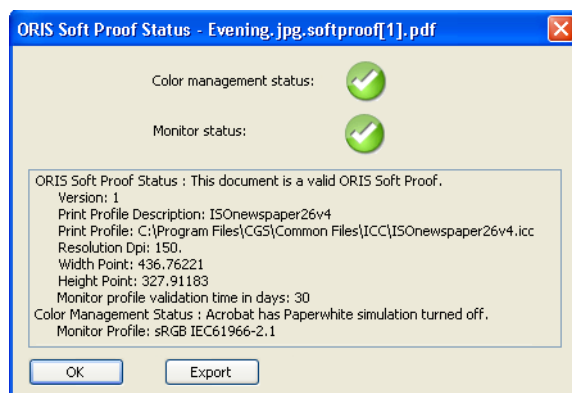
- Acrobat's color management is set correctly (see page 19-1).
- The monitor profile is not too old (the limit is 30 days by default).
- The monitor's color gamut is large enough compared to the color gamut described by the output ICC profile.

By default, the target gamut must be covered by at least 80% and the maximum dE must be lower than 12. These values are configurable.

Click on the status icon to open a dialog providing more details (see Fig. 19-8). Two icons at the top of this dialog, each displayed as  or , indicate the status of these conditions.

Click the EXPORT button to save the information displayed in the dialog to a text file.

Fig. 19-8 Softproof Viewing Status



Stamping Soft Proofs

Stamp a page to indicate whether you reject or approve it. The stamp will create an Acrobat annotation which includes the date and time, user name and soft proof status (see Fig. 19-9). Then send the information about which stamp was used back to ORIS Flex Pack//Web.

Step 1: Select Stamp

Click on one of the stamp icons on the ORIS Soft Proof toolbar. In Acrobat Version 8 and 9 you can also use the commands on the **ADVANCED | ORIS SOFT PROOF** menu.

Stamp	Icon	Menu command
		ORIS STAMP: APPROVED This stamp is only available if the viewing status is OK.
		ORIS STAMP: APPROVED DESPITE UNCALIBRATED COLOR DISPLAY Use this stamp if you approve the page <i>contents</i> only. The stamp is only available if the viewing status is not OK. Colors may not be displayed accurately.
		ORIS STAMP: REJECTED

Step 2: Place Stamp

Click on the page to place the stamp.

Alternatively, if you want to vary the size of the stamp, draw a rectangle with the mouse button pressed down.

Note: Each page of a multi-page document has to be stamped separately. You can only stamp a page once.

Step 3: Send Status to ORIS Flex Pack//Web

Click the  icon on the ORIS Soft Proof toolbar. In Acrobat Version 8 and 9 you can also select ADVANCED | ORIS SOFT PROOF | SEND SOFTPROOF STATUS TO ORIS FLEX PACK//WEB.

The information about which stamp was used will be fed into the database. The result in ORIS Flex Pack//Web is as follows:

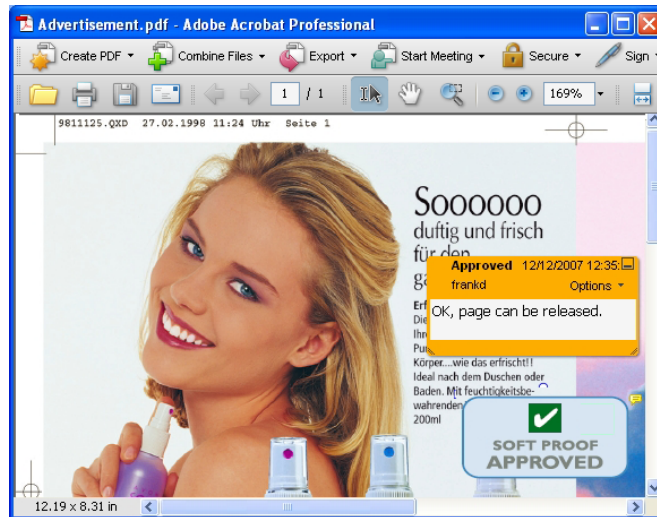
- If the stamp is  or :
 The high-res file can be printed. It is printed automatically if the job has not been put on hold and the output queue is active (started).
 The soft proof status changes from  to  (approved) or  (approved despite uncalibrated color display).
- If the stamp is :
 The high-res file cannot be printed.
 The soft proof status changes from  to  (rejected).

If the soft proof status cannot be sent from a Macintosh...

If clicking the  button has no effect, the Macintosh computer may be unable to resolve the computer name stored in the soft proof PDF file. This means, it cannot find out the IP address of the ORIS Flex Pack//Web Server to which the status should be transmitted. This may occur in local networks that do not have a Domain Name Service.

In this case we recommend to edit the file `/etc/hosts`. Add a new line consisting of the IP address and, followed by a space, the host name. Please contact your network administrator for more information.

Fig. 19-9 ORIS Soft Proof Stamped and Annotated in Acrobat



Deleting a Stamp

Use one of the following methods to delete a stamp:

- Click on the stamp and press the DELETE key.
- Right-click on the stamp and select DELETE from the context menu.
- Select ADVANCED | ORIS SOFT PROOF | DELETE ORIS STAMP (Acrobat 8 and 9 only).

20 Scatter Proofing

Use the scatter proof function to print multiple jobs on the same sheet. This saves paper and time, above all when large-format printers are used.

The jobs are placed on a temporary page referred to as the *scatter proof form*. They are automatically arranged in a suitable way and printed automatically when no further job can be fitted – or at regular intervals. There is also a manual printing mode which allows you to rearrange the jobs on the scatter proof form.

Using the Scatter Proof Manager you can view and rearrange the jobs collected on the scatter proof form (see page 20-3).

Setting up Scatter Proofing

Activating Scatter Proofing

1. Select the output queue (see page 16-1).
2. Click on  to open the SETTINGS dialog.
3. Click on the SCATTER PROOFING tab (see Fig. 20-1).
4. Enable the USE SCATTER PROOFING option.

Scatter proofing can only be enabled and configured for *output queues*.

If a *job* has been selected, the scatter proofing options are grayed out and reflect the settings made for the output queue that holds this job.

The scatter proof settings made for the output queue are displayed even if the selected job has not been output via scatter proofing.

Setting Scatter Proof Options

Use the options on the SCATTER PROOFING tab as follows (see Fig. 20-1):

- Use the options under PRINT JOBS: to specify whether jobs should be printed automatically, at regular intervals, or manually.

In automatic mode, jobs are printed as soon as the scatter proof form is full. In addition, users can print the jobs at any time by clicking  (see page 20-8).

- Enter or select the information to be printed with every document.
- Select a COLOR BAR (not supported for SCREENDOT printing). It will be printed for every document on the scatter proof form.

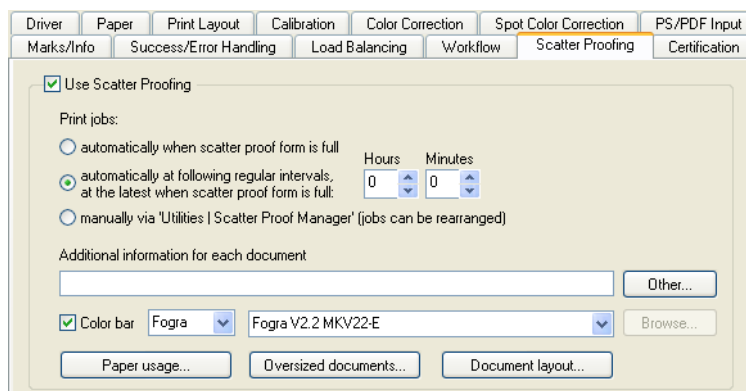
Using the CERTIFICATION tab you can select additional colors bars. The COLOR BAR FOR MANUAL MEASUREMENT will be printed once for the entire scatter proof form (CT proofing only).

When proofing halftone data (SCREENDOT), all 1-bit files and the color bar must have the same image resolution.

- Click on PAPER USAGE to define the size of the scatter proof form.
- Click on OVERSIZED DOCUMENTS to specify what to do with documents exceeding the size of the scatter proof form.
- Click on DOCUMENT LAYOUT to align documents horizontally, add borders or increase the spacing between documents.

Click the HELP button if you need help with these options.

Fig. 20-1 'Settings' Dialog, 'Scatter Proofing' Tab



Supported Number of Spot Colors

If scatter proofing is enabled, a maximum of 28 spot colors is supported. If a job contains more spot colors, only 28 will be handled as spot colors (i.e. corrected via SCG file), the rest will be converted to CMYK (i.e. corrected via ORIS_DAT file).

When using N-channel ICC profiles (e.g. Hexachrome) for color correction, this limitation applies to the *scatter proof form*. In this case the maximum number of supported spot colors is 28 minus non-CMYK process colors (such as orange or green).

Viewing and Managing Queued Jobs

The SCATTER PROOF MANAGER allows you to monitor how jobs are queued and arranged automatically on the scatter proof form. Jobs can be duplicated, deleted and changed in priority.

If the PRINT JOBS: option has been set to MANUALLY..., jobs can additionally be rearranged, rotated, cropped, added to and removed from the queue. Printing must be started manually if this mode is active.

Opening Scatter Proof Manager

1. Select the output queue (see page 16-1).
2. Click the toolbar button .

Or select UTILITIES | SCATTER PROOF MANAGER.

This command is unavailable if a *job* has been selected. It is also unavailable if scatter proofing is disabled for the output queue.

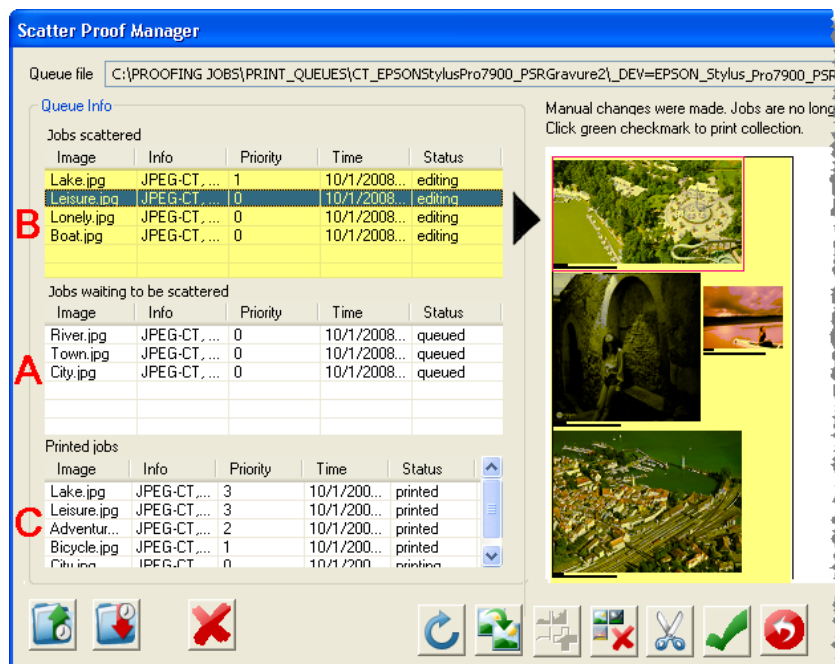
The SCATTER PROOF MANAGER dialog appears (see Fig. 20-2). It lists the jobs that are being printed via the selected output queue:

- Left-hand area
Here the file names are listed together with additional information. The jobs pass through three different lists, from list A over B to C (see Fig. 20-2). The meaning of these lists is explained below.
- Right-hand area
A preview image of the selected job is displayed here. To select a job, click on the file name or preview image. When you click on a preview

image, the corresponding file name will be highlighted, and vice versa.

A thin black line indicates the borders of the scatter proof form. Make sure documents do not exceed this border. They would be cut off.

Fig. 20-2 Scatter Proof Manager



The scatter proof form (B) has been marked up in yellow in this figure.

‘Jobs scattered’ (List B)

List **B** (see Fig. 20-2) shows the jobs on the scatter proof form. These jobs are automatically arranged in a suitable way and will be printed together.

When you click on a job name, a preview of all jobs on the scatter proof form appears. The selected image is highlighted with a thin magenta frame.

A thin black line indicates the borders of the scatter proof form. Documents exceeding these borders will be cut off.

The way jobs are processed depends on the scatter proofing mode:

Automatic Mode

The jobs are automatically moved on to list C when the scatter proof form is full or after the specified time interval, respectively. These jobs will then be printed. Jobs can be duplicated, deleted and changed in priority.

If you lower the priority, for example, the job may move back to the list of waiting jobs (A) and another job with a higher priority may take its place.

You can also click the  button to force the immediate output of the jobs queued so far. The jobs will be moved on to list C even if there is still room to fit additional jobs.

Manual Mode

You can rearrange the jobs by dragging the preview images with the mouse. It is also possible to rotate or crop jobs and to move the jobs back to the list of waiting jobs (A).

Once manual modifications have been made, the program will stop adding any more jobs to the scatter proof form, even if they could be fitted. The job status changes from QUEUED to EDITING.

Having completed your modifications, click on  to print the queued jobs. The jobs will be moved on to list C. The program will then continue to add jobs from list A to the scatter proof form (B).

Using  you can reverse your modifications. The jobs will be arranged automatically and the program will continue to add new jobs.

‘Jobs waiting to be scattered’ (List A)

List **A** (see Fig. 20-2) shows the jobs that are waiting to be positioned on the scatter proof form (B). They will be added automatically as soon as they can be fitted there. If the manual mode is active, users can also add jobs manually and change the priority.

The higher the job priority, the sooner a job will be added to the scatter proof form (B). Some jobs may be waiting for a long time, because there are many other jobs which fit better on the scatter proof form. Increasing the priority causes these jobs to be printed sooner.

This list is usually empty if the automatic mode is active.

‘Printed jobs’ (List C)

Once the scatter proof form (B) is full or printing is started manually, the jobs move on to list **C** (see Fig. 20-2) and will eventually be printed.

The STATUS column indicates the current job status:

- **FIXED** – Job is on a scatter proof form that is full, but has not yet been calculated.
- **ASSEMBLING** – Job is on a scatter proof form that is being calculated.
- **SPOOLED** – Job has been sent to the printer spooler.
- **PRINTING** – Job is being sent to the printer.
- **PRINTED** – Job has been sent to the printer.

When you click on a job name, a preview of all scatter proof jobs appears. The selected image is highlighted with a thin magenta frame.

You can remove jobs from this list using the  button or the DELETE JOB command on the context menu. Printed jobs remain in this list for at least 24 hours. They are removed automatically when the next scatter proof form is printed.

Options for List A and B

Various commands for jobs are available on a context menu. This menu can be opened by right-clicking on a file name or preview image. You can also use the buttons displayed at the bottom of the dialog.

The following table summarizes the options available for jobs selected in the scatter proof form (B) and in the list of waiting jobs (A):

Icon	Context menu	Action	Availability
	INCREASE PRIORITY	Increases the job priority by one increment.	Always
	DECREASE PRIORITY	Decreases the job priority by one increment.	
	DELETE JOB	Deletes the job so that it will not be printed.	
	DUPLICATE JOB	Creates a duplicate of the job.	

Icon	Context menu	Action	Availability
	ADD TO QUEUE	Moves the job from the list of waiting jobs (A) on to the scatter proof form (B).	In manual mode only
	REMOVE FROM QUEUE	Moves the job from the scatter proof form (B) back to the list of waiting jobs (A).	
	ROTATE	Rotates the job by 90° to the left. Restores normal position if the job has been rotated.	
	CROP	Allows you to print a selected image area. Hold the mouse button pressed down and draw a rectangle, then click on the image.	

Status of Scatter Proof Jobs

When scatter proofing is enabled, there are special status icons for the jobs listed in the main window.

	On hold (stopped)
	Waiting to be added to scatter proof form
	Currently being added to scatter proof form
	Currently being canceled
	Successfully added to scatter proof form, but not printed yet
	Printed successfully (i.e. scatter proof form was printed)
	Added to scatter proof form or printed, but with warnings
	Error – not added to scatter proof form or not printed

» RELATED TOPICS:

- JOB STATUS (PAGE 16-10)
- VIEWING AND MANAGING QUEUED JOBS (PAGE 20-3)

Printing Scatter Proof Jobs Immediately

The jobs collected for scatter proofing can be printed immediately, even if there is still room for additional documents on the scatter proof form.

Proceed as follows:

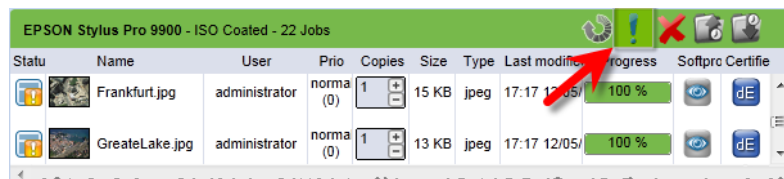
1. Select the output queue (see page 16-1).
2. Click the  button (see Fig. 20-3).

Clicking this button will only print the jobs currently queued on the scatter proof form (list B in Fig. 20-2). Jobs waiting to be queued there (list A) are not printed.

This functionality is unavailable – and the  button is grayed out – if the printing mode is set to MANUALLY.... This is the mode that requires users to click on  in the SCATTER PROOF MANAGER in order to print the jobs collected on the scatter proof form.

The  button is also grayed out if scatter proofing (i.e. the USE SCATTER PROOFING option) is disabled.

Fig. 20-3 Button for Printing Scatter Proof Jobs Immediately



21

Certifying Proofs

Using ORIS Certified/Web you can easily verify whether your proof colors are within the tolerance limits. This program is installed automatically with ORIS Flex Pack/Web. It runs as a 30-day fully functional demo version. A separate software license is required after this period.

About Color Bars

CONTINUOUS TONE

When proofing continuous tone data, use the color bars available in ORIS Flex Pack/Web's installation directory ...\\Program Files\\CGS\\Common Files\\Extras\\Proofing Bars\\. There are specific color bars for different measurement devices and printing standards.

SCREENDOT

When certifying halftone proofs, the color bar must be a screened 1-bit TIFF file.

Create the screened color bar from the files in the ...\\Extras\\Proofing Bars\\ directory. Use the files named ...\\SpectroProofer\\ .tif when measuring with the spectrophotometer embedded in Epson Stylus Pro printers. Use the files named ...\\iPF SPM\\ .tif when measuring with the spectrophotometer embedded in Canon iPF printers.

The screened color bar must have the same geometry as the original color bar. Do not scale, mirror or rotate it. The color bar can only be printed with accurate colors, if the jobs and the color bar have been screened with the same RIP settings. These settings include resolution, screen ruling, screen angle and dot shape.

SCREENDOT PLUS

When certifying halftone proofs created from CT data, the color bar must also be a CT file. Use the files in the ...\\Extras\\Proofing Bars\\ directory.

The program ensures automatically that the proof data and color bar are screened with the same settings.

See also *Halftone Proofing* (page 18-1).

Certification with Embedded Measurement Devices

Proof certification runs in a fully automated process without any user intervention if printers equipped with an embedded measurement device are used. This is supported for the following printers and printing modes:

- Epson Stylus Pro printers
CONTINUOUS TONE, SCREENDOT, SCREENDOT PLUS
Spot color certification: CONTINUOUS TONE method only
- Canon iPF printers
CONTINUOUS TONE, SCREENDOT, SCREENDOT PLUS
Spot color certification not supported
- HP DesignJet Z printers
CONTINUOUS TONE method only

Jobs are printed directly to the printer and not via the Windows print spooler, if an embedded measurement device is used.

When using printers of the HP DesignJet Z series you should not check the measurements against standard printing conditions. The measurement devices embedded in these printers use a UV-cut filter and a black backing. The characterization data for standard printing conditions are usually created without any filter and with a white backing.

- » RELATED TOPICS:
- EMBEDDED MEASUREMENT DEVICES (PAGE 1-18)
 - HALFTONE PROOFING (PAGE 18-1)

Certification Setup

How to configure and request proof certification for printers with an embedded measurement device:

Step 1: Setup Spot Color Certification

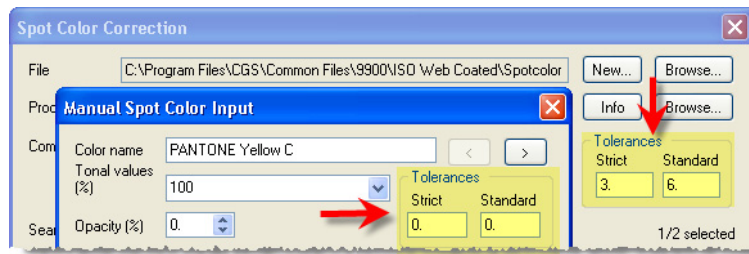
If Epson SpectroProofer is used, spot colors can be included in the certification process. You can certify a maximum of 28 spot colors, or 27 if the Adobe PDF Print Engine is used.

Note: This functionality is not supported for the printing methods SCREENDOT and SCREENDOT PLUS and not for scatter proofing.

Proceed as follows:

1. Select the output queue to be used (see page 16-1).
2. Click on  to open the SETTINGS dialog.
3. Click on the SPOT COLOR CORRECTION tab.
4. If a spot color correction file (*.scgx) is loaded, click EDIT.
Otherwise select TABLE, click NEW and load the printer characterization file (e.g. RFP file). Refer to page 22-7 for more details.
5. Import the spot colors that should be certified (see page 22-9).
6. Into the STANDARD box, enter the tolerance value to be applied to all spot colors listed in the SCG file (see Fig. 21-1).
If you want to define two-level tolerances, additionally enter a lower value into the STRICT box. Otherwise leave the value set at **0** which means *undefined*.
7. Save the SCG file and click **OK** to close the dialog.
8. Certain spot colors may be impossible to match precisely on many printers. You may therefore want to specify higher tolerance limits just for such colors.
To do so, double-click the spot color in the list or click on CHANGE. Enter the tolerances values into the STANDARD and STRICT boxes.

Fig. 21-1 Entering Tolerance Limits for Spot Colors



Step 2: Request Certification

1. In the SETTINGS dialog, click on the CERTIFICATION tab.
2. Select a PRINT TARGET (see Fig. 21-2 and 21-3).

A print target defines the color patches to be measured as well as the target values and tolerances. Use ORIS Certified/Web to create and edit print targets.

3. Enable the PROOF CERTIFICATION REQUIRED option to request proof certification for jobs printed via this output queue.

The next steps to take depend on the printer and proofing method:

Epson and HP (Continuous tone)

1. Enable CREATE AND MEASURE COLOR BAR AUTOMATICALLY

The program will automatically create a color bar for the printing standard defined by the selected print target. This color bar will be measured automatically with the printer's embedded spectrophotometer.

Note: You can select a second color bar that will be printed additionally. It can be measured manually and will not be used for proof certification.

2. Additionally enable CERTIFY SPOT COLORS if you want to. This option is available for Epson printers only.
3. You can change the default DRYING TIME and the folder to which measurement files will be saved.

Epson (ScreenDot or ScreenDot Plus) and Canon

1. Enable the option COLOR BAR, select FILE and choose a color bar that is suitable for the selected print target. A suitable color bar is selected automatically if Canon printers are used.
 - SCREENDOT:
The color bar must be a *screened* 1-bit file created from the color bars in the installation directory (see also page 21-1).

- **SCRENDOT PLUS:**
Use the CT files in the installation directory ...\\Program Files\\CGS\\Common Files\\Extras\\Proofing Bars\\. Use the files named ...\\(SpectroProofer) .tif when measuring with the spectrophotometer embedded in Epson printers. Use the files named ...\\(iPF SPM) .tif when measuring with the spectrophotometer embedded in Canon iPF printers.
2. Enable the option MEASURE COLOR BAR AUTOMATICALLY.
 3. Select the COLOR BAR REFERENCE that defines the color bar geometry and the color patches to be measured. Reference files are available in the installation directory ...\\Extras\\Proofing Bars\\.
 4. You can change the default DRYING TIME time and the folder to which measurement files will be saved.

Fig. 21-2 Setting up Proof Certification (CT Proof)

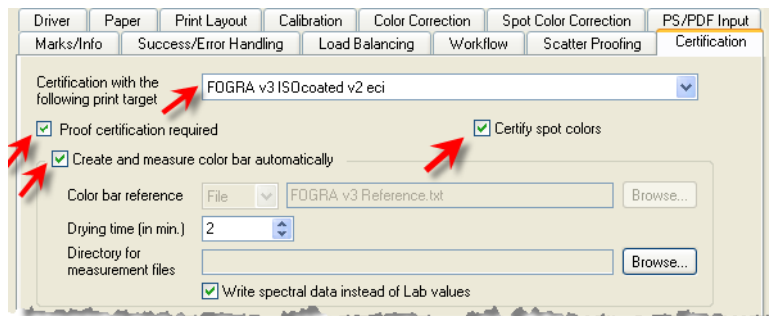
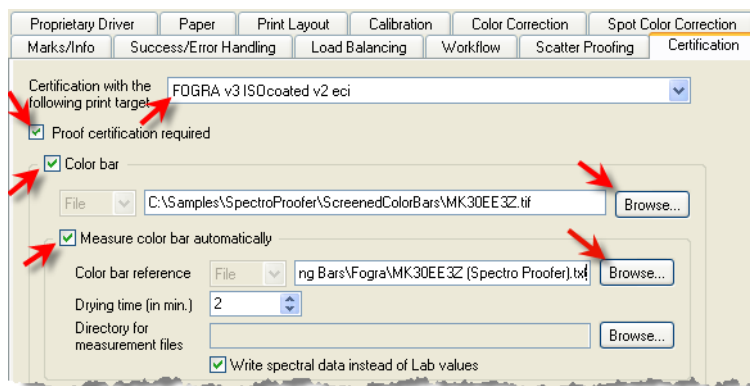


Fig. 21-3 Setting up Proof Certification (Halftone Proof)

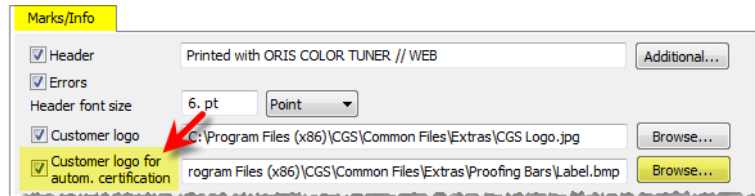


Step 3: Choose Logo for Certification Label

To customize the logo that will be printed on the certification label:

1. Select the MARKS/INFO tab.
2. Enable the CUSTOMER LOGO FOR AUTOM. CERTIFICATION option.
3. Choose a logo file with bitmap format (*.bmp).

Fig. 21-4 Customizing Certification Label



Automatic Certification Process

Proof certification runs in a fully automated process without any user intervention when using printers equipped with an embedded measurement device. When printing a job via an output queue set up accordingly, the following will occur:

1. The color bar defined for the selected print target is printed automatically below the document and measured using the printer's embedded device.

A separate color bar with the job's spot colors is printed additionally if you have enabled the CERTIFY SPOT COLORS option. It consists of a maximum of 28 spot colors, or 27 if the APPE is used.

2. The measurements are sent to ORIS Certified/Web and compared to the target values and tolerances defined for the specified print target.

This is done in the background without ORIS Certified/Web being visible to the user.

3. The certification status is printed automatically in the form of a 'label' (Epson and Canon printers only). It also provides a summary of the measurement results (see Fig. 21-5).

Note: The label is always printed *below* the color bar when certifying half-tone dot proofs (SCREENDOT and SCREENDOT PLUS printing method).

4. The measurement results are automatically sent back to ORIS Flex Pack/Web. The certification status changes to indicate whether your proof colors are within the tolerance limits (see page 21-10).

Note: If a job consists of multiple pages, all pages are measured, but only the result of the last measurement is indicated.

Fig. 21-5 Certification Status and Measurement Summary

	ORIS CERTIFIED # WEB	ID	21	dE2000	
Target:	Woman's Day	dE Paper:	3.0	1.23	
Suppl.:	CGS	dE Aver.:	4.0	2.14	
Tester:	Automatic	dE Max.:	10.0	3.75 (B15)	
Job:	WD060217_P013	dE Prim.:	5.0	2.70 (A7)	Y
Proofer:	Canon W2200	dH Prim.:	2.5	-1.88 (A1)	C
Target:	ISOcoated v2 eci.txt	dH Ø Gray:	1.5	1.30	
03/29/2007 12:39		Signature		X-Rite ILS20EP v6216	

Certification with External Measurement Devices

Certification Setup

How to configure and request proof certification when using a spectrophotometer connected to your computer:

1. Select the output queue to be used (see page 16-1).
2. Click on  to open the SETTINGS dialog.
3. Click on the CERTIFICATION tab (see Fig. 21-6 and 21-7).
4. Select a PRINT TARGET.

A print target defines the color patches to be measured as well as the target values and tolerances. Use ORIS Certified/Web to create and edit print targets.

5. Enable the PROOF CERTIFICATION REQUIRED option to request proof certification for jobs printed via this output queue.
6. Enable the option COLOR BAR FOR MANUAL MEASUREMENT or COLOR BAR, respectively.
7. Select FILE and choose a color bar. Make sure the color bar is suitable for your measurement device and the selected print target.
 - CONTINUOUS TONE and SCREENDOT PLUS:
Use one of the CT files in the installation directory.
 - SCREENDOT:
The color bar must be a *screened* 1-bit file created from the color bars in the installation directory (see also page 21-1).

Fig. 21-6 Setting up Proof Certification (CT Proof)

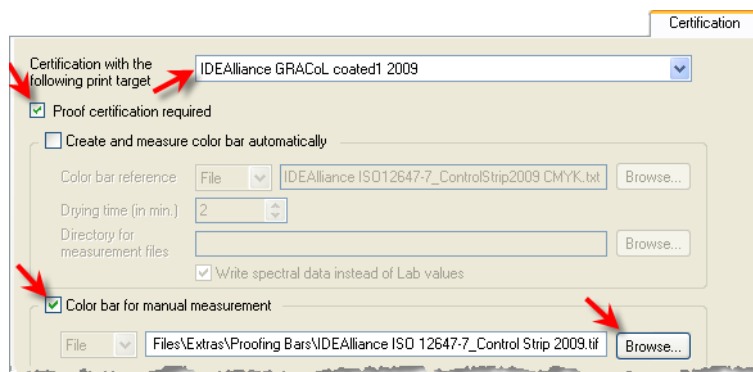
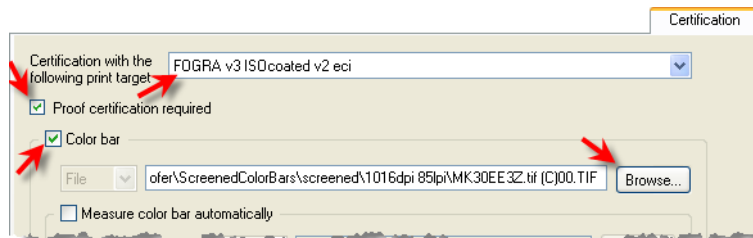


Fig. 21-7 Setting up Proof Certification (Halftone Proof)



Manual Certification Process

To verify proof colors using an external measurement device:

1. Print a job via an output queue that was set up accordingly.
2. Select a job from the list of jobs (see page 16-8).
3. Click on  to start ORIS Certified/Web (see Fig. 21-8).

The job name and print target are listed in ORIS Certified/Web's main window.

When using the ORIS Flex Pack//Web Client application (web browser), do the following instead: Launch ORIS Certified/Web e.g. from the Windows START menu. Then click the QUERY DATA-BASE button and select the job you have just printed.

4. Click on  and measure the color bar on the proof.

ORIS Certified/Web compares the measurements with the target values and indicates the result.

Note: If a job consists of multiple pages, you can only measure *one* page.

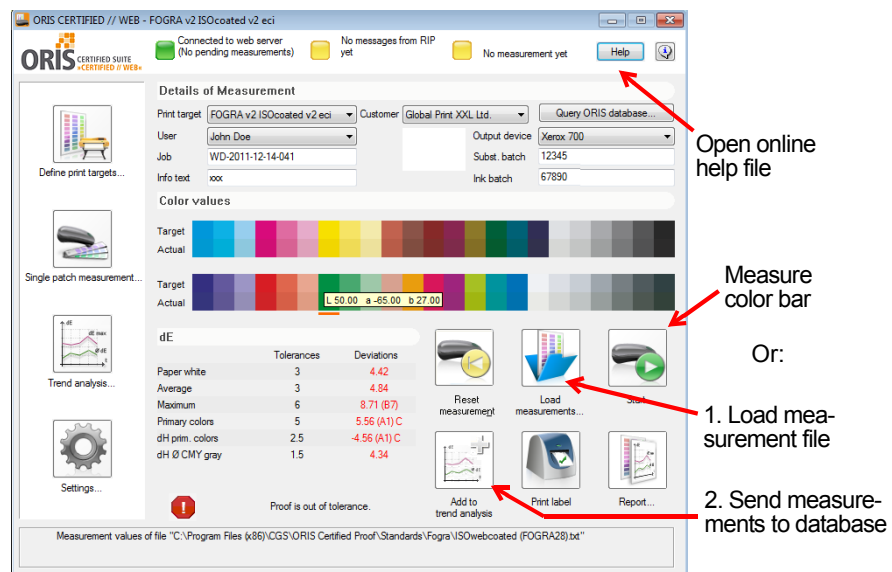
5. The measurement results are sent back automatically to ORIS Flex Pack//Web.

Note: Click  if you have loaded a measurement file instead of measuring. Otherwise the data will not be sent back.

6. The certification status changes in ORIS Flex Pack//Web to indicate whether your proof colors are within the tolerance limits (see page 21-10).

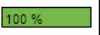
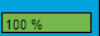
For more information refer to the online help file of ORIS Certified//Web.

Fig. 21-8 Main Window of ORIS Certified//Web



Certification Status and Results

ORIS Flex Pack//Web indicates the certification status in the rightmost column of the job list.

Status	Name	User	Prio	Copy	Size	Type	Last modified	Progress	Softproof	Certified
	 Frankfurt.jpg	administrator	normal (0)		279 Kb	jpeg	12:48 09/03/04			
	 Quark1.qxd.PS	system	normal (3)		1.3 Mb	ps	12:51 09/03/04			

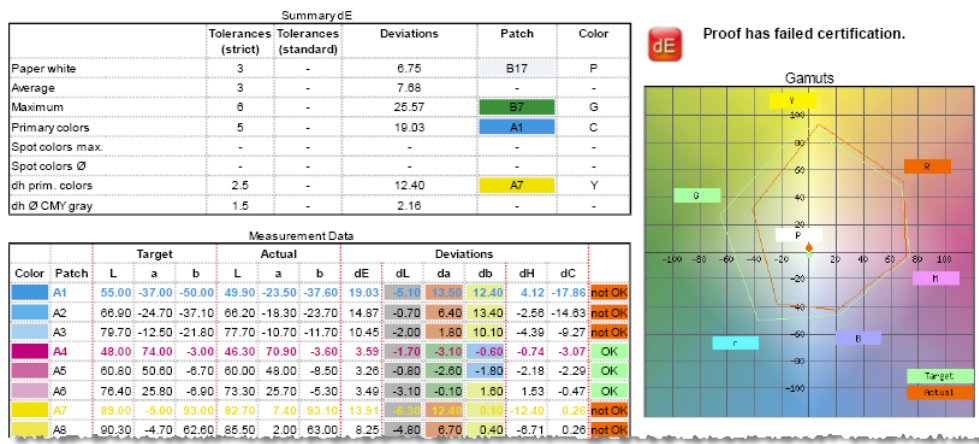
In ORIS Flex Pack//Web Client applications, this status may be hidden, if the user account has been set up accordingly (see page 17-3).
If a job consists of multiple pages, the certification status is displayed for one of these pages only.

The certification status can be one of the following:

	No certification requested.	
	Certification requested for job or output queue.	
	Certification done. Proof within tolerances.	2-level tolerances: Proof within <i>strict</i> limits.
	Proof within standard, but outside strict tolerances (2-level tolerances only)	
	Proof out of tolerance.	2-level tolerances: Proof outside <i>standard</i> limits.

Click the , , or  icon to open the certification log. It provides a summary, details for every color patch and a color space chart (see Fig. 21-9). Click the PRINT button at the bottom the window to print the log.

Fig. 21-9 Certification Results in ORIS Flex Pack/Web



Understanding the Certification Log

The following is displayed for every color patch:

- Color and patch name
Hover over the color boxes to see the CMYK reference values.
- CIE Lab values of TARGET colors and measurements (ACTUAL)
- Lab differences (delta E, delta L, delta a, delta b)
- Difference in hue (DH) and chromaticity (DC)
- Pass/fail indication in green (OK) or red (NOT OK)

The color markup has the following meaning:

- The values of primary and secondary colors are displayed in the respective colors.
- Deviations in luminance (dL) are highlighted with a gray background if the color is too dark, or not highlighted if the color is too bright.
- Deviations on the **a** axis are highlighted in red or green, respectively, depending on the color shift.
- Deviations on the **b** axis are highlighted in blue or yellow.

Color space chart:

This chart allows you to graphically compare the target and actual color space.

The color spaces are represented in a two-dimensional **ab** diagram. The borders of the target color space are represented by a green line. The primary and secondary colors as well as the white point are indicated. If a proof is perfect, the green line is completely inside the red line, or the two lines are on top of each other.

22 Spot Color Simulation

Overview

ORIS Flex Pack//Web allows you to correct spot colors using a separate color table called *spot color correction file* (SCG file).

If an SCG file is used, the CMYK device color is calculated from:

- the spot colors' device-independent Lab values and
- the data characterizing the printer (RFP file, measurement file or ICC profile)

Using SCG files provides the following benefits:

- All spot colors located within the printer's color gamut are simulated very precisely.
- Spot color simulations can be optimized without adversely affecting process colors, because a separate color table is used (SCG file instead of ORIS_DAT file or ICC profiles).

Tip

Use Roland printers with XG INKS (CMYK+orange+green) to achieve an extended color gamut allowing you to reproduce virtually any spot color to contract proofing standards.

The program calculates the optimum amount of CMYK, orange and green to be used for the color simulation.

Note

Spot colors are treated like process colors if no SCG file is used or if they are missing in the SCG file. This means that the spot colors are replaced with their CMYK equivalence values which are then color matched using the specified ORIS_DAT file or ICC profiles, respectively.

If the CMYK values are not defined in the document itself, the program looks them up in the ORIS spot color libraries (*.osc) in the installation path (...\\Program Files\\CGS\\Common Files\\CC\\). Spot colors which are not defined in any *.osc file should be entered into the file Private.osc.

» RELATED TOPICS:

- CORPORATE OR NON-STANDARD SPOT COLORS (PAGE 22-26)
- MODIFYING JOB SEPARATIONS (PAGE 16-15)

Note: Paper white cannot be simulated if jobs with more than 28 spot colors are printed.

Creating Spot Color Correction Files

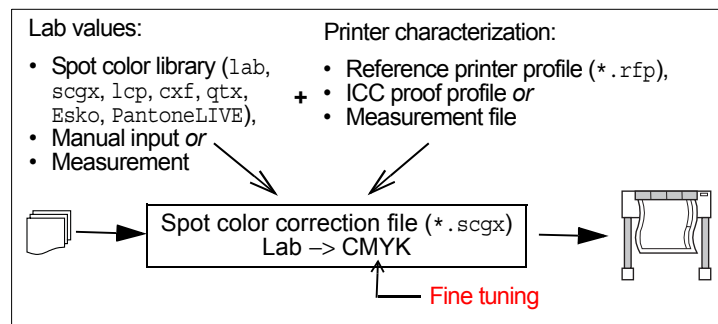
The spot color names and Lab values can be imported from the following files:

- PANTONE®¹ and HKS spot color libraries (*.lab)
All commonly used libraries are included in the software package and can be selected conveniently from a list.
- PantoneLIVE libraries
- Esko Ink Books
- Spot color correction files (*.scgx, *.scg)
- Logo ColorPicker files (*.lcp)
- X-Rite Color Exchange Format files (*.cxf)
- Datacolor files (*.qtx)

You can also define your own spot colors, either by measurement or by entering the values manually.

Refer to page 22-9 for detailed instructions.

Fig. 22-1 Creating Spot Color Correction Files



1. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

Optimizing Spot Color Simulation

If you feel that a spot color is not perfectly matched, you can fine-tune the CMYK device colors defined in the SCG file (see Fig. 22-1).

Spot colors can be optimized automatically and also edited visually. Using gradation curves you can also correct specific tonal ranges, e.g. the midtones. It is also possible to simulate dot gain (for all and individual colors), opacity and the order in which spot colors will be printed.

If a printer supports orange, green, white or metallic silver ink, you can additionally use these inks for simulating spot colors.

Values for orange and green ink are calculated automatically from the specified 6-channel ICC profile. Values for white and metallic silver ink need to be entered manually (empirical values).

Refer to page 22-14 for detailed instructions.

Exporting Spot Color Libraries

Using the SAVE AS button, spot color correction files can be converted into the spot color library format of various RIPs. The following formats are supported:

Format	File extension
ORIS spot color correction file	*.scgx, *.scg
ORIS spot color library	*.osc
Xerox FreeFlow spot color library	(none)
Xeikon spot color library	*.xkn
HP Indigo spot color library	*.csv
Océ PRISMAsync spot color library	*.oce

Spot Colors in PDF Files

The Adobe PDF Print Engine (APPE) supports a maximum of 27 spot colors. If a PDF file contains more spot colors, only 27 will be handled as spot colors (i.e. corrected via SCG file), the rest will be converted to CMYK (i.e. corrected via ORIS_DAT file).

If the APPE is *not* used, the number of supported spot colors is limited to 28 in the following cases:

- Printing PDF files with output intent (e.g. PDF/X)

- Halftone proofing (SCREENDOT and SCREENDOT PLUS)
- Scatter proofing

Note: When using N-channel ICC profiles (e.g. Hexachrome) for color correction, this limitation applies to the *scatter proof form*. This is the temporary page that collects the jobs to be printed together. The maximum number of supported spot colors is 28 minus non-CMYK process colors (such as orange or green).

The Adobe PDF Print Engine is enabled by default. To disable it:

1. Select the output queue (see page 16-1).
2. Click on  to open the SETTINGS dialog.
3. Click on the PS/PDF INPUT tab.
4. Disable the USE PDF PRINT ENGINE FOR PDF FILES option.

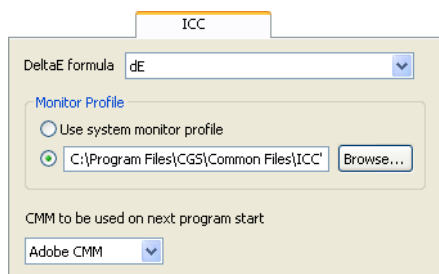
Step 1: Color Management Settings

Before starting the spot color correction tool, you should *calibrate* and *profile* your monitor so that spot colors are displayed correctly on the screen. Then do the following:

1. Select FILE | PREFERENCES to open the PREFERENCES dialog.
2. Click on the ICC tab (see Fig. 22-2).
3. Select the DELTA E FORMULA to be used for optimizing the CMYK device colors and calculating color distance values. We recommend DE.
4. Select USE SYSTEM MONITOR PROFILE if the monitor profile has been set as your computer's default monitor profile. Otherwise click BROWSE to select the profile.

Note: If no specific ICC profile is available for your monitor, we recommend to use the default profile `eciRGB_v2.icc`. This file resides in the installation directory `...\Program Files\CGS\Common Files\ICC\`.

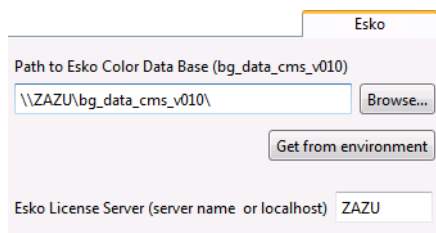
Fig. 22-2 'Preferences' Dialog, 'ICC' Tab



Step 2: Connect to Esko Color Database

If the Esko Color Engine is installed on your network, you can import spot colors from Esko Ink Books and PantoneLIVE² libraries. To do so, select the ESKO tab of the PREFERENCES dialog and specify the path to this database. Also specify the name of the Esko license server.

Fig. 22-3 'Preferences' Dialog, 'Esko' Tab



Step 3: Start Spot Color Correction Tool

The SPOT COLOR CORRECTION dialog (see Fig. 22-5) allows you to create and optimize SCG files. Proceed as follows to open this dialog:

1. Select the output queue (see page 16-1).
2. Click the  button to open the SETTINGS dialog.
3. Click on the SPOT COLOR CORRECTION tab (see Fig. 22-4).
4. Enable the TABLE option.

2. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

5. To create a new SCG file:

1. Click NEW. The SPOT COLOR CORRECTION dialog opens (Fig. 22-5).
2. Continue with **Step 4** (page 22-7)

To optimize an existing SCG file:

1. Click BROWSE and select the SCG file.

SCG files created with the Setup Wizard reside under ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer>\\<queue>\\Spotcolor\\.

2. Click EDIT. The SPOT COLOR CORRECTION dialog appears.
3. Continue with **Step 7** (page 22-14).

Note

Spot color correction files can also be created and edited when no output queue is selected. Take one of the following actions:

- Select the COLOR | SPOT COLOR CORRECTION command.
- Double-click a spot color correction file (*.scg, *.scgx) in Windows Explorer.
- Click the  button on the toolbar.

Fig. 22-4 'Settings' Dialog, 'Spot Color Correction' Tab

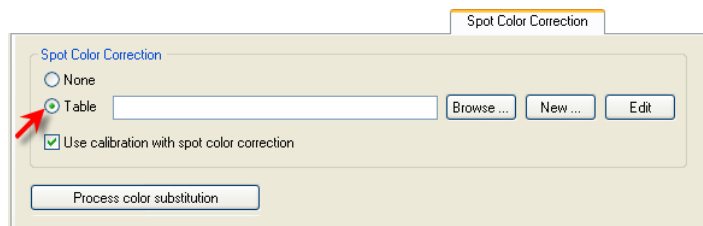
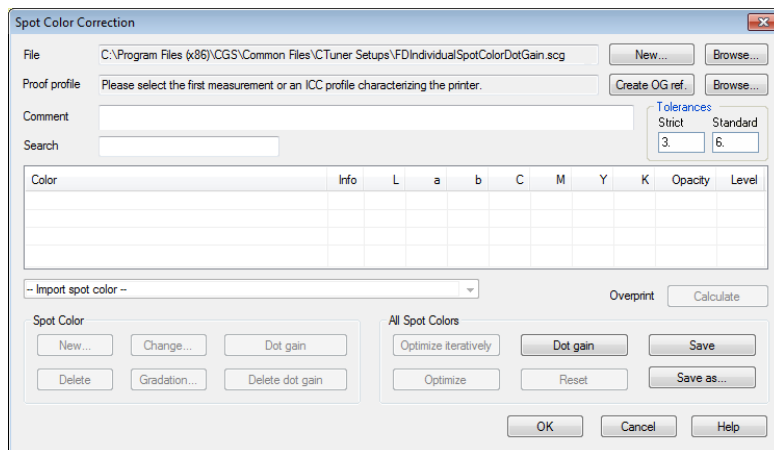


Fig. 22-5 'Spot Color Correction' Dialog (Empty)



Step 4: Select Printer Characterization File

Select the file characterizing your printer. This file is required for converting the spot colors' Lab values to CMYK. To do so, click on the BROWSE button next to PROOF PROFILE. A dialog for selecting profiles appears. You can choose files of the following types:

Reference Printer Profile

Choose the reference printer profile (RFP file) you have used during iterative printer calibration.

Using the RFP file saves you the trouble of having to create an ICC profile for your printer. Note that the RFP file may not entirely cover the color gamut required for correctly simulating all of your spot colors.

Note: Using an RFP file is recommended if the USE CALIBRATION WITH SPOT COLOR CORRECTION option is *enabled* in the SETTINGS dialog (see Fig. 22-4).

RFP files for the supported printers are available under ...\\Program Files\\CGS\\Common Files\\ICC\\Reference Printer Profiles\\.

Measurement File or ICC Profile

Use the measurement file created from the first test chart printed during iterative color matching, or an ICC profile. Both files must characterize your printer in the *uncalibrated* state (no *.cal or *.lin file applied).

The printer's entire color gamut will be used in this case. However, you always have to repeat the printer characterization and the spot color fine tuning when the printer's color reproduction characteristics change.

Measurement files are only displayed in this dialog if the corresponding reference file is available on your system.

Note: Using a measurement file or ICC profile is recommended if the USE CALIBRATION WITH SPOT COLOR CORRECTION option is *disabled*.

6-channel ICC Profile

Use a 6-channel profile for simulating spot colors on Roland printers used with XG INKS (CMYK+orange+green). The COLOR MODE on the DRIVER tab must be set accordingly. ICC profiles with other color channels will not be accepted in this case.

However, profiling software is not always affordable and such profiles may therefore be unavailable. ORIS Flex Pack//Web does not leave you out in the cold. Instead of an ICC profile, you can also select a measurement file created from a 6-color test chart with orange and green patches. The program will automatically create a 6-channel ICC profile from this measurement file.

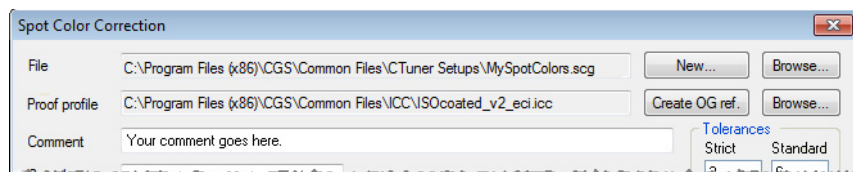
Note: To create such a measurement file conveniently, click the CREATE OG REF. button next to the PROOF PROFILE input box. Then select a 6-channel characterization test chart that is suitable for your measurement device. 6-channel test charts are available in the installation directory. The test chart will be printed automatically and needs to be measured.

Step 5: Enter Comment and Save

Back in the SPOT COLOR CORRECTION dialog, do the following:

1. If you want, you can enter a COMMENT into the input box, e.g. on the dot gain curve used for these spot colors.
2. Save the spot color correction file (*.scg, *.scgx). To do so, click on the SAVE button and enter a file name.

The names of the SCG file and printer characterization file (e.g. proof profile) are displayed at the top of the SPOT COLOR CORRECTION dialog.



Note: If you change the proof profile, the CMYK device colors will be recalculated for all spot colors. Make sure to save the SCG file before doing so.

Step 6: Add Spot Colors

Spot colors can be imported from files, defined manually or obtained by measurement. Using the DELETE button you can remove selected spot colors from the dialog.

Importing Spot Colors From Files

1. Use the --IMPORT-- list in the SPOT COLOR CORRECTION dialog to select a PANTONE³ or HKS spot color library (*.lab) (see Fig. 22-5). Select ESKO to load Esko Ink Books and PantoneLIVE libraries. You must have set up a connection to the Esko database (see page 22-5). Select OTHERS from this list to load files of a different type or stored in another location. The following file types are also supported:
 - Spot color correction files (*.scg, *.scgx)
 - Logo ColorPicker files (*.lcp)
 - X-Rite Color Exchange Format files (*.cxf)
 - Datacolor files (*.qtx)
2. Having selected a CXF file, select the *sample set* to be used. Having selected ESKO, select the libraries that contain your spot colors.
3. From the IMPORT SPOT COLORS dialog (see Fig. 22-6), select the colors to be imported. Do this as follows:
 - Double-click to add a single spot color. Then click CANCEL.
 - To add multiple colors, CTRL-click or SHIFT-click the colors you want, then click IMPORT SELECTED.
 - To add *all* colors, click SELECT ALL (CTRL+A) and then IMPORT SELECTED.

The selected spot colors are added to the SPOT COLOR CORRECTION dialog (see Fig. 22-7).

4. Repeat these steps to import spot colors from additional files. Then click SAVE to save the spot color correction file (*.scg, *.scgx).

3. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

5. If you feel that the device colors do not match the original colors closely enough, you can fine-tune them (see **Step 8**).

PANTONE®* and HKS spot color libraries reside in the installation path ...\\Program Files\\CGS\\Common Files\\CC\\.

* PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

Fig. 22-6 'Import Spot Colors' Dialog

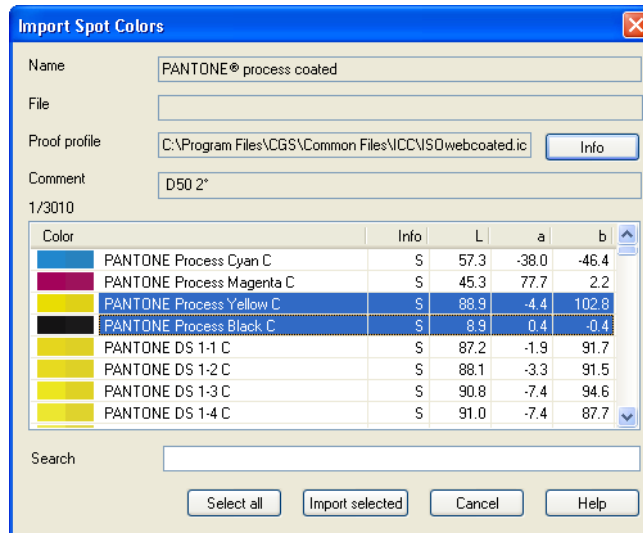
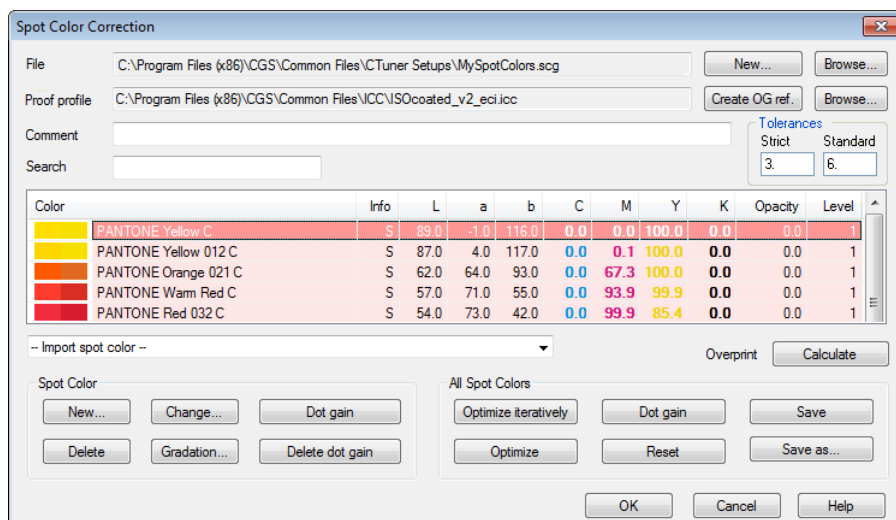


Fig. 22-7 'Spot Color Correction' Dialog (With Colors)



Creating Spot Colors by Measurement

You can import spot colors from a step wedge, swatchbook or any other printed color sample by clicking on it with your handheld spectrophotometer. You can conveniently measure solid colors and also spot color halftones, i.e. a series of tonal values such as 100, 80, 60, 40 and 20%.

1. In the SPOT COLOR CORRECTION dialog (Fig. 22-7), click on NEW. The MANUAL SPOT COLOR INPUT dialog appears (Fig. 22-8).
2. Enter a name for the new color into the COLOR NAME box.
3. Enable the AUTO ADD option if the measured colors should be automatically added to the list in the SPOT COLOR CORRECTION dialog. Otherwise you have to click the ADD button after each measurement.

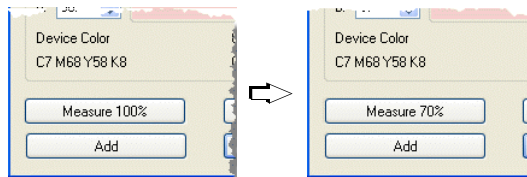
4. Specify the TONAL VALUES to be measured.

Enter **100** to measure solid tones only. (Instead of measuring, you could also type the Lab values into the **L a b** boxes on the left.)

Enter **100 60 40**, for example, to additionally measure the 60% and 40% value. The values can be separated by any character which is no digit. You can also select from a list of predefined tonal values.

5. If known, specify the spot color's OPACITY and PRINT ORDER.
6. The selected measurement device is indicated in the dialog. Click the SELECT button if you want to select another device.

7. Click the START MEASUREMENTS button.
8. Usually the following steps need to be taken for the first measurement only:
 - A message appears telling you to place the instrument onto its base. A white calibration will be performed automatically.
 - A message appears telling you to place the instrument onto the paper white (a white area of the proofing substrate or sample).
9. Now the button you have clicked indicates MEASURE 100%.
Place the measurement head on the patch with the solid tone. Then press the button on the measurement device.
10. When measuring spot color halftones, the button indicates the next tonal value to be measured. Measure this patch in the same way.



11. Having measured all tonal values, the color name and the measurement values appear automatically in the MANUAL SPOT COLOR INPUT dialog (see Fig. 22-8). If the AUTO ADD option is not enabled, however, you have to click the ADD button.
12. To measure additional spot colors, enter a new name into the COLOR NAME box and repeat the above actions from step 4 onward.
13. Having created the last spot color, close the dialog. Use **OK** if the new color has not been added automatically, otherwise use **CANCEL**.
14. The new colors appear in the SPOT COLOR CORRECTION dialog.
15. Click **SAVE** to save the spot color correction file (*.scg, *.scgx).

Note:

Always enter a new color name before starting to measure. Otherwise the program will automatically use the last color name with an ascending number (e.g. MyColor_2, MyColor_3, etc.).

You can remeasure a spot color at any time. Double-click on the color name (or click **CHANGE**), then relick the **START MEASUREMENTS** button.

Fig. 22-8 'Manual Spot Color Input' Dialog

Manual Spot Color Input

Color name: My new spot color ☐ Auto Add

Tonal values (%): 100; 70; 35; 5

Opacity (%): 0.0

Print order: 1. color over CMYK

Lab Color

L: 60.0
a: 45.0
b: 30.0

Device Color

☒ C: 11.0
☒ M: 58.0
☒ Y: 50.0
☒ K: 7.76

Tolerances: Strict 0.0, Standard 0.0

Original Device Color: 4.85 dE 4.85
C100 M36 Y0 K0 3 dE94 3

Measurement device: Eye-One

Buttons: Start measurements, Optimize, Smoothen, Reset, Add, OK, Cancel, Help

Color Representation

The Lab values of the spot color and the calculated device color (usually CMYK) are displayed visually and numerically. The MANUAL SPOT COLOR INPUT dialog additionally indicates the color deviation (e.g. delta E).

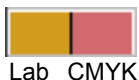
Lab Color

L: 60.0
a: 45.0
b: 30.0

Device Color

☒ C: 11.0
☒ M: 58.0
☒ Y: 50.0
☒ K: 7.76

Original Device Color: 4.85 dE 4.85
C100 M36 Y0 K0 3 dE94 3



The INFO column of the SPOT COLOR CORRECTION dialog specifies either the number of tonal values or the letter **S**. This letter stands for solid colors and indicates that there is color data for the 100% value only.

Color	Info	L	a	b	C	M	Y	K	Opacity	Level	Strict	Std.
PANTONE 102 PC	S	91.0	-7.8	84.8	3.4	4.3	87.5	2.7	0.0	1		
PANTONE 335 U	4	46.2	-28.7	-1.7	79.6	33.2	46.2	21.2	0.0	1	8.0	14.0
PANTONE Purple U	S	52.9	53.8	-38.6	30.6	74.1	0.5	0.4	0.0	1	12.0	20.0

Out-of-gamut colors are displayed with a pink background.

A spot color is considered to be outside the printer's color gamut, if the expected delta E value is > 5. If the CMYK equivalents have one or more channels with a 100% tone value, a delta E value > 2 is sufficient.

Step 7: Evaluate Spot Color Simulation

1. Click **OK** to close the SPOT COLOR CORRECTION dialog. The data is saved automatically.
2. Print a spot color test chart.
Enable the USE CALIBRATION WITH SPOT COLOR CORRECTION option if the *.cal or *.lin file should also be applied to spot colors.
3. Evaluate the spot color match. We recommend to do this under standard lighting conditions (D50, 5000°K).
4. Optimize the spot color simulation if required (see **Step 8**).

Step 8: Optimize Spot Colors

The CMYK device colors can be fine-tuned if you feel that they do not match the original colors closely enough. You can use different methods:

Optimization applies to...		Procedure	More details
All colors	100% tones only	Automatic, one step	See page 22-15
All or selected colors	All tonal values (halftones)	Automatic, iterative (very precise)	See page 22-15
Single color	Every tonal value separately	Automatic, one step	See page 22-21
Single color	100% tones only	Manual, visual control	See page 22-22
Single color	All tonal values (halftones)	Manual, with gradation curves	See page 22-24

Note: Automatic optimization applies to CMYK channels only. White and metallic silver are not modified.

Note: Automatic optimization is not supported when using Roland printers with XG INKS (CMYK+orange+green). This ink set can be selected using the COLOR MODE option on the DRIVER tab.

How To Proceed

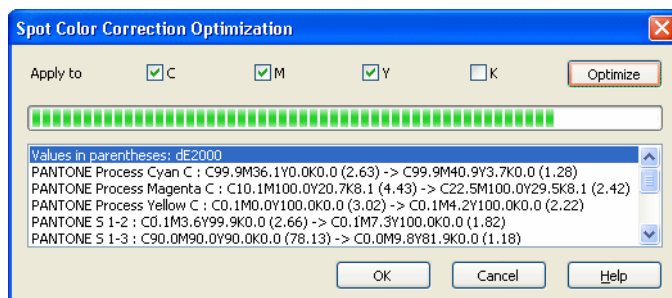
1. Start the spot color correction tool as described in **Step 3** (page 22-5).
2. Select and open the spot color correction file (SCG) to be optimized.
In the SETTINGS dialog (see Fig. 22-4), for example, use the BROWSE button to select an SCG file, then click on EDIT. You can also select SCG files using the BROWSE button in the SPOT COLOR CORRECTION dialog.

Optimizing All Spot Colors (Quickly)

This method allows you to quickly optimize all spot colors in one go. This applies to solid tones (100% values) only, halftones are not changed.

1. In the SPOT COLOR CORRECTION dialog (see Fig. 22-7), click on the OPTIMIZE button. This opens the SPOT COLOR CORRECTION OPTIMIZATION dialog (see Fig. 22-9).
2. Use the APPLY TO parameter to deselect the color channels that should not be modified, e.g. black (**K**).
3. Click the OPTIMIZE button to start the calculation. The corrections are logged in the window as the calculation progresses.
4. When finished, click **OK** and save the modified SCG file.

Fig. 22-9 'Spot Color Correction Optimization' Dialog



Optimizing All Spot Colors (Iteratively)

Use this method to optimize the simulation of all (or selected) spot colors in one go by repeatedly printing a test chart and measuring Lab values. This provides extremely precise results, i.e. very low delta E values for spot colors located within the printer's color gamut. This method optimizes also spot color halftones, not only solid (100%) values.

Click on the OPTIMIZE ITERATIVELY button in the SPOT COLOR CORRECTION dialog (see Fig. 22-7). A software wizard will lead you step by step through the optimization process. Always click NEXT to proceed with the next step.

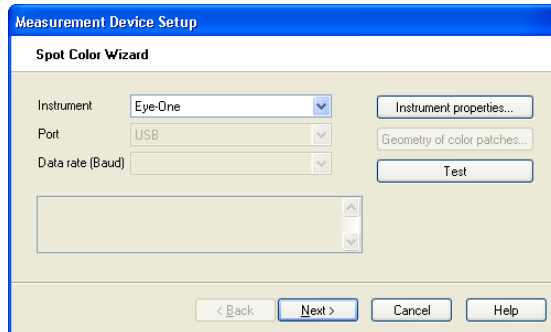
Note: Paper white cannot be simulated if more than 28 spot colors are optimized iteratively.

This functionality requires the ScreenDot Plus license (see page 1-9) if used when proofing halftone data (ScreenDot).

Step 1: Select Measurement Device

Select the measurement device and configure it. Only X-Rite i1, i1 iO and i1 iSis are supported for this function.

Fig. 22-10 Spot Color Correction Wizard – Measurement Device



Step 2: Select Spot Colors

Select the spot colors to be optimized. Click CTRL+A to select all colors of the spot color library. To select multiple colors, click with the SHIFT or CTRL key pressed down.

Note: A minimum of 5 spot colors need to be selected when using X-Rite i1Pro 2 devices and the M1 or M2 MEASUREMENT MODE.

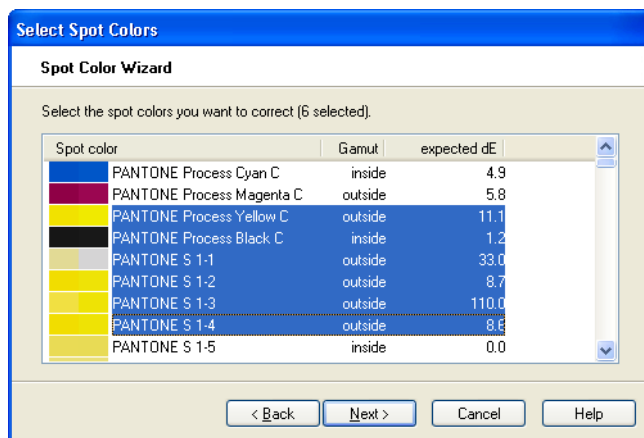
The following details are displayed for every spot color. You can sort the columns by clicking on the headers.

- Color preview in a split box
The patch on the left represents the target color defined by the Lab values in the spot color library. The patch on the right represents the actual color defined by the current CMYK equivalents.
- Inside or outside color gamut?
Spot colors which are outside the printer's color gamut cannot be simulated correctly. Optimizing them may improve the simulation slightly, but the target values can never be approached closely.
It may be a good idea to optimize these colors manually after completing this wizard. To save time, you may want to exclude out-of-gamut colors from the iterative optimization process.
See also *Optimizing Single Spot Colors (Visually)* (page 22-22).

- Expected delta E value
Difference between the Lab values defined in the spot color library and the Lab values calculated from the current CMYK equivalents and the printer characterization file (RFP file, measurement file or ICC profile). These estimated dE values are likely to drop when the CMYK equivalents are optimized now.

A spot color is considered to be outside the printer's color gamut, if the expected delta E value is > 5. If the CMYK equivalents have one or more channels with a 100% tone value, a delta E value > 2 is sufficient.

Fig. 22-11 Spot Color Correction Wizard – Selecting Colors



Step 3: Print Test Chart

Printing Method CONTINUOUS TONE

When you click NEXT, a test chart with the selected spot colors will be generated and output automatically using the SCG file you have created or loaded and the current printer and print settings.

The current settings are those you have defined in the Setup Wizard or in the SETTINGS dialog of the selected output queue. If no output queue is selected, the settings of the output queue edited previously are used.

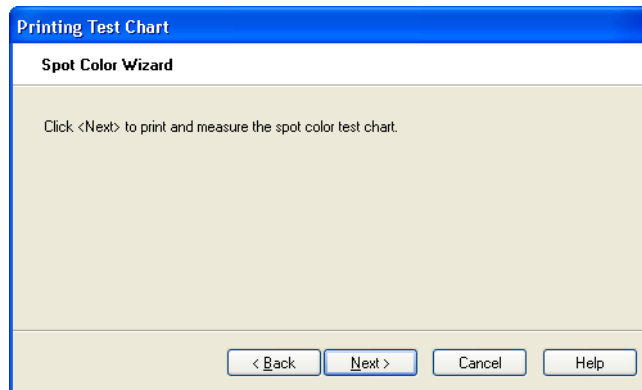
Spot color halftones (e.g. 50% values) are printed as separate color patches. The test chart is a temporary PostScript file which will be deleted automatically when you complete this wizard.

Printing Method SCREENDOT PLUS

To optimally minimize the color deviations with this printing method, a *calibration test chart* is output before the spot colors are printed. This test chart contains the 16 edge colors of the CMYK color space. These are all colors with a combination of 0% and 100% channels.

Printing starts automatically when you click NEXT. Measure the calibration test chart and relick NEXT. Now the test chart with the selected spot colors is generated and printed.

Fig. 22-12 Spot Color Correction Wizard – Printing

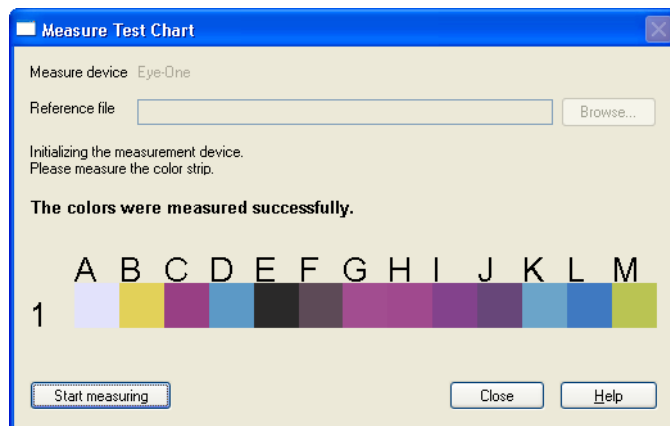


Step 4: Measure Spot Colors

This dialog shows the colors of the chart that has been printed. Click START MEASURING and measure the color strip. Measure the color strip in one go. It is not possible to measure the color patches individually.

Having successfully completed the measurement, click the CLOSE button. The program will automatically optimize the spot color simulation and recalculate the CMYK equivalents in the SCG file.

Fig. 22-13 Spot Color Correction Wizard – Measuring



Step 5: Evaluate Spot Color Match

This dialog allows you to evaluate the optimized spot color simulation. Look at the average and maximum delta E value indicated at the top. The program also tells you whether it is possible to further reduce the color deviations:

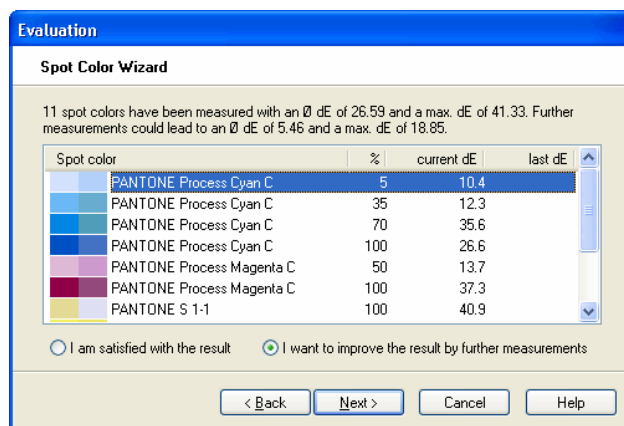
Further measurements could lead to an Ø dE of ...

The following details are displayed for every spot color. You can sort the columns by clicking on the headers.

- %
Tone value. Spot color halftones (e.g. 50% values) are listed separately.
- CURRENT DELTA E
Difference between the Lab values defined in the spot color library and the Lab values calculated from the optimized CMYK equivalents.
- LAST DELTA E
This column is empty in the first round. But when you repeat the optimization process, it will show the delta E values of the previous round. Compare it with the current value to see how much dE has dropped.

If you would like to further reduce the color deviations, enable the option I WANT TO IMPROVE THE RESULT.... Then click the NEXT button to repeat the optimization process. Otherwise enable I AM SATISFIED WITH THE RESULT and click FINISH to close the wizard.

Fig. 22-14 Spot Color Correction Wizard – First Evaluation



Step 6: Repeat This Process

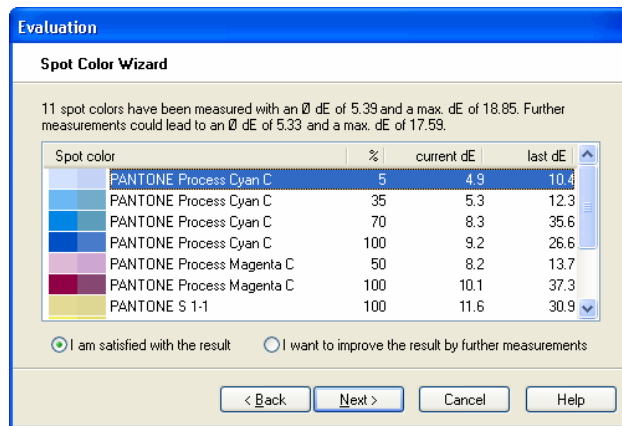
If you have selected I WANT TO IMPROVE THE RESULT..., the following steps will be repeated when you click on NEXT:

- **Step 3:** Print the test chart. The program will use the optimized SCG file with the new CMYK equivalence values.
- **Step 4:** Measure the spot colors.
- **Step 5:** Decide whether to reduce the color deviations any further.

You can repeat these steps as often as you like to progressively optimize the spot color simulation. Stop when you notice that there is no longer a considerable reduction of delta E. Select I AM SATISFIED... in this case.

The delta E values of some spot colors may increase slightly in some cases. Don't worry about that. When you complete the wizard, the program will automatically pick the CMYK equivalents with the lowest delta E value – even if this value was achieved some optimization rounds before.

Fig. 22-15 Spot Color Correction Wizard – Second Evaluation



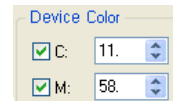
Optimizing Single Spot Colors (Automatically)

1. In the SPOT COLOR CORRECTION dialog (see Fig. 22-7), double-click on a spot color name, or select a spot color and click on CHANGE.

The MANUAL SPOT COLOR INPUT dialog appears (see Fig. 22-16).

The Lab colors are displayed in the upper color box. The CMYK device colors calculated by the printer characterization file appear in the lower box. The color distance (e.g. delta E) is indicated below the two color boxes.

2. Select the color channels whose values should *not* be changed. To do so, remove the check marks from the relevant **C**, **M**, **Y**, **K** boxes displayed on the right.
3. Click the OPTIMIZE button to optimize the CMYK device colors. This minimizes the color deviations automatically.



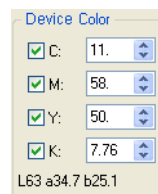
Now the lower color box splits in two, displaying the optimized device color on the right and the original device color on the left. The delta values on the right refer to the optimized color.

Lab color			
Original device color		Edited device color	
0.34		1.15	
0.13		0.87	
	dE		
	dE2000		

4. You can round the CMYK colors to integer values.

To do so, make sure the CMYK channels to be modified have check marks, then click the SMOOTHEN button.

Decimal places between 0.1 and 0.4 are rounded down, decimal places between 0.5 and 0.9 are rounded up. Values lower than 2 are rounded to 0, values greater than 98 are rounded to 100.



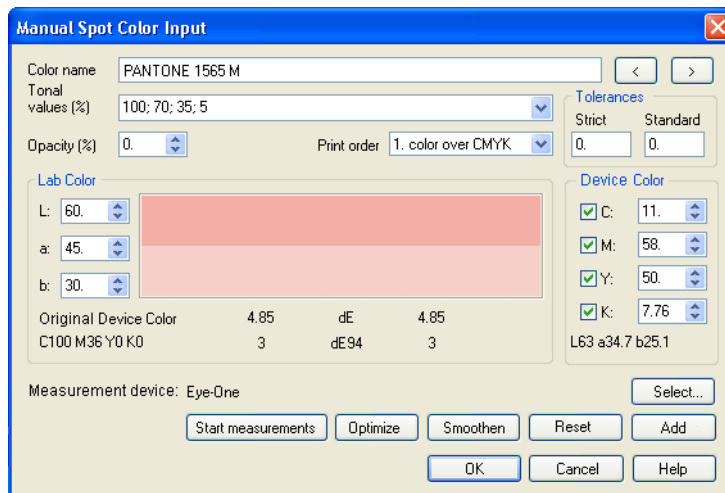
5. Click RESET if you want to restore the original CMYK values.

6. Click or if you want to optimize additional spot colors. This applies the changes and loads the previous or next spot color, respectively. Repeat the process described above (from step 2).

The buttons are displayed as  or  if you have not modified the selected spot color.

7. Click OK to close the dialog, then save the SCG file. Use CANCEL to close the dialog if you have clicked or beforehand.

Fig. 22-16 'Manual Spot Color Input' Dialog

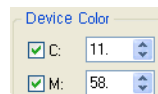


Optimizing Single Spot Colors (Visually)

1. In the SPOT COLOR CORRECTION dialog (see Fig. 22-7), double-click on a spot color name, or select a spot color and click on CHANGE.

The MANUAL SPOT COLOR INPUT dialog appears (see Fig. 22-16).

- Overtyping the numeric values in the input boxes on the right or clicking the small arrows displayed next to these boxes.
- Now the lower color box splits in two, displaying the edited device color on the right and the original color on the left. The delta values on the right refer to the edited color.



Lab color		
Original device color		Edited device color
0.34	dE	1.15
0.13	dE2000	0.87

- First evaluate the corrections visually, and then according to the delta E values.
In some cases, the delta E value may be larger after the color correction, although the color is visually closer to the original Lab color.
- Click RESET if you want to restore the original device color values.
- Click  or  if you want to optimize additional spot colors. This applies the changes and loads the previous or next spot color, respectively. Repeat the process described above (from step 2).
The buttons are displayed as  or  if you have not modified the selected spot color.
- Click **OK** to close the dialog, then save the SCG file. Use **CANCEL** to close the dialog if you have clicked  or  beforehand.

About Gamut Warnings

There are two independent color gamut warnings  in the MANUAL SPOT COLOR INPUT dialog (see Fig. 22-17):

- A gamut warning displayed to the right and left of the color values which appears if the deviation between the Lab and device color is greater than 5 delta E, or if the deviation is greater than 2 delta E and one of the device color values is lower than 0.01 or greater than 99.9.
- A gamut warning displayed on top of the Lab color box indicating that the Lab color cannot be displayed accurately on your monitor, because the color distance between the Lab color and monitor color is greater than 5 delta E.

In this case it is *not* recommended to correct the device color visually.

Note: In certain color areas, a color distance of 5 delta E is not yet visually perceived as critical, while in other color areas a color distance of less than 5 delta E is perceived as critical already. It is therefore advisable to evaluate the color distance both visually *and* numerically.

Fig. 22-17 Gamut Warnings for Spot Color Correction



Optimizing Spot Color Halftones (Manually)

You can create gradation curves to improve the simulation of spot color halftones. This allows you to correct the midtones, for example.

1. In the SPOT COLOR CORRECTION dialog (see Fig. 22-7), select a spot color, then click on the GRADATION button.

The SPOT COLOR GRADATION dialog appears (see Fig. 22-18).

2. Select the color channel to be modified by clicking the CYAN, MAGENTA, YELLOW, or BLACK option on the left. The curve corresponding to the selected channel is indicated by large points.
3. Edit the selected curve:
 - Click to add a new point.
 - Drag a point to move it.
 - Right-click or SHIFT-click a point to delete it.
4. Click APPLY to temporarily save all changes made so far. Click UNDO if you want to restore the curve saved temporarily. If you have not yet used APPLY, clicking UNDO will restore the original unmodified curve.
5. You can switch to a different color channel at any time. Having done so, repeat steps 3 and 4.
6. Click **OK** to close the dialog. You are back in the SPOT COLOR CORRECTION dialog.

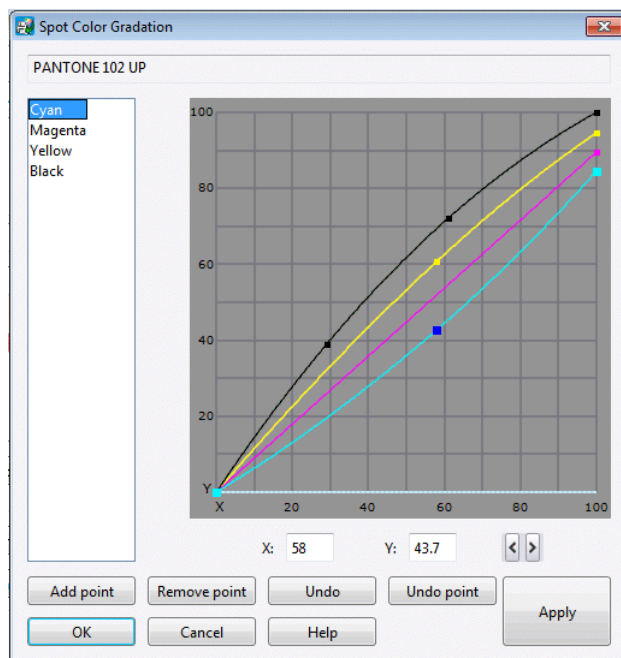
The number of points defining the gradation curves is displayed in the INFO column. The letter **S** stands for solid colors and indicates that there is color data for the 100% value only.

Color	Info	L	a	b	C	M	Y	K	Opacity	Level	Strict	Std.
PANTONE 102 PC	S	91.0	-7.8	84.8	3.4	4.3	87.5	2.7	0.0	1		
PANTONE 335 U	4	46.2	-28.7	-1.7	79.6	33.2	46.2	21.2	0.0	1	8.0	14.0
PANTONE Purple U	S	52.9	53.8	-38.6	30.6	74.1	0.5	0.4	0.0	1	12.0	20.0

7. Save the spot color correction file (*.scg, *.scgx).

Note: You cannot create gradation curves for orange, green, white, metallic silver or other non-CMYK inks.

Fig. 22-18 'Spot Color Gradation' Dialog



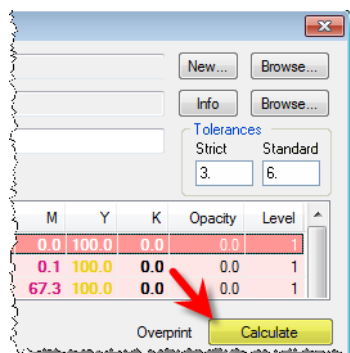
Optimizing Overprinting Spot Colors

Click the OVERPRINT: CALCULATE button to improve the simulation of overprinting spot colors. The program will calculate an *overprint table* for the spot color correction file (*.scgx) with optimized simulation values.

Note: The overprint table will be embedded into the SCG file. This will cause a substantial increase in file size.

Note: Creating overprint tables is not supported when using Roland printers with XG INKS (CMYK+orange+green). This ink set can be selected using the COLOR MODE option on the DRIVER tab.

Fig. 22-19 Improving Overprinting Spot Colors



Reversing All Changes

You can use the RESET button to reverse all changes made in the SPOT COLOR CORRECTION dialog (see Fig. 22-7). All CMYK values are then recalculated from the currently loaded printer characterization file (see page 22-7).

Step 9: Evaluate Spot Color Simulation

1. Close the SPOT COLOR CORRECTION dialog.
2. Print a spot color test chart.
3. Evaluate the spot color match. We recommend to do this under standard lighting conditions (D50, 5000°K).
4. Optimize the spot color simulation if required (see **Step 8**).

Corporate or Non-Standard Spot Colors

Color in Job Preview

The following information applies to documents of the following type:

- Separated PDF and PostScript documents

These files do not contain any information about the CMYK equivalence values of a spot color.

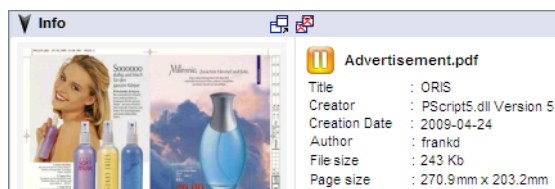
- Multi-file documents that will be combined into a single print job
Combining separation files is supported for halftone proofing with 1-bit TIFF and LEN files and also for 8-bit grayscale TIFF files.

To ensure that a spot color is displayed correctly in the job preview, make sure to define it in one of the ORIS spot color libraries (*.osc) in the installation directory ...\\Program Files\\CGS\\Common Files\\CC\\. Use the file Private.osc to define corporate or non-standard spot colors.

Open Private.osc using a text editor such as Windows Notepad. Enter the spot color names and CMYK equivalents according to the instructions provided in the file itself.

Note: The CMYK equivalence values defined in the OSC file are used if these values are not defined in the document itself. If the CMYK equivalents of a spot color are unknown, the color will be displayed in *green* in the job preview. A different shade of green is used for every unknown color.

Fig. 22-20 Job Preview Image



- » RELATED TOPICS:
- HALFTONE PROOFING (PAGE 18-1)
 - NAMING CONVENTIONS FOR 1-BIT FILES (PAGE 18-9)
 - HOW TO PRINT MULTI-FILE GRAYSCALE JOBS (PAGE 26-7)

Color in Print Output

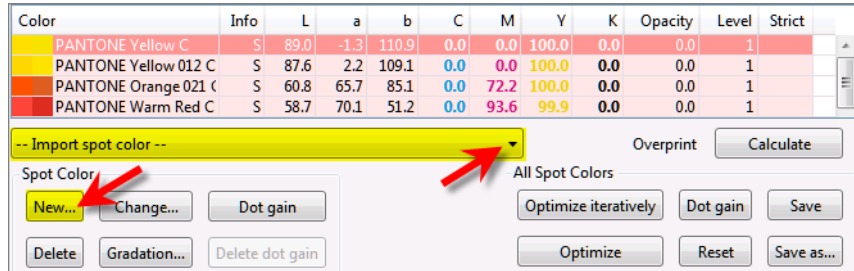
To ensure that a spot color is simulated correctly on your printer, make sure to define it in the spot color correction file (SCG) of the print queue.

1. Click , select the SPOT COLOR CORRECTION tab and click EDIT.
2. Select a spot color library from the -- IMPORT SPOT COLOR -- list, select the colors and import them.
3. To define a corporate or non-standard spot color, click NEW, enter the color name and define the CMYK device colors.

SCG files specify the CMYK color to be used for your printer based on the Lab values of the spot colors and the printer characterization file (e.g. RFP file).

Unknown spot colors which are not defined in the SCG file are printed as they appear in the job preview, i.e. with their CMYK equivalents. They are printed in a *green* tone, for example, if the CMYK equivalents are unknown, e.g. because the color is not defined in any OSC file, either.

A message stating that the CMYK equivalents have been used for the spot color is additionally printed on the page.



- » RELATED TOPICS:
- SPOT COLOR SIMULATION (PAGE 22-1)
 - ADD SPOT COLORS (PAGE 22-9)

Replacing and Omitting Spot Colors

Spot colors can be omitted or replaced with other spot colors defined in the spot color correction file (SCG file).

This functionality can be used to do the following, for example:

- If a spot color name is not used consistently in a document, to map all variants of this name to the same spot color.
- If a designer wants to try out various spot colors for a particular separation of a packaging job, to avoid the trouble of creating a new DTP file for each variant.
- To recolor or suppress spot colors used for a special purpose, e.g. those defining *cut contours*.

Proceed as follows:

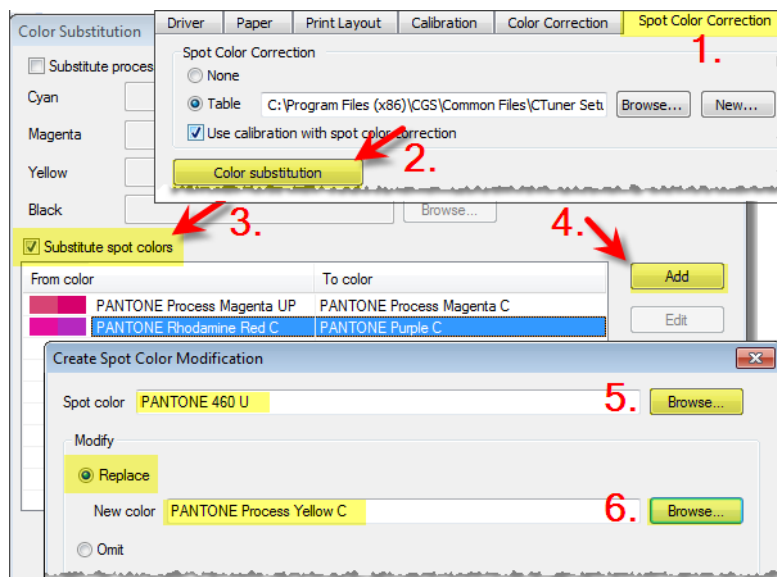
1. Select the output queue (see page 16-1).
2. Click the  button to open the SETTINGS dialog.
3. Select the SPOT COLOR CORRECTION tab.
4. Click the COLOR SUBSTITUTION button.

5. Enable the SUBSTITUTE SPOT COLORS option.
6. Click ADD to create a spot color modification rule.
7. Choose the spot color to be replaced.
8. Select REPLACE and choose the new color – or select OMIT.

Note: You should not omit spot colors for individual print *jobs* if scatter proofing is enabled. This will cause unpredictable results. The settings made for one of these jobs will be applied to all jobs on the scatter proof form. Make this setting for the entire print *queue* if scatter proofing is used.

- » RELATED TOPICS:
- MAPPING UNKNOWN SPOT COLOR NAMES (PAGE 18-8)
 - MODIFYING JOB SEPARATIONS (PAGE 16-15)

Fig. 22-21 Substituting Spot Colors



23

Creating Reference Printer Profiles

Reference printer profiles (*.rfp) are required for the iterative printer calibration process. They characterize the colorimetric properties of a particular printer used with a particular set of parameters.

These parameters include:

Printer model, ink set, paper type, print resolution, printing method (CT or halftone), maximum density, maximum ink coverage.

Predefined RFP files for most of the supported printers are available in the installation path ...\\Program Files\\CGS\\Common Files\\ICC\\Reference Printer Profiles\\. These files can only be used for proofing continuous tone data.

Halftone dot proofing (SCREENDOT and SCREENDOT PLUS) requires the use of special RFP files created for the respective printing methods. RFP files for the SCREENDOT method must be created with *screened* test charts. Refer to page 18-2 for more details.

If there is no RFP file for your printer or printer settings, you can create it using ORIS Flex Pack//Web's Reference Printer Profile Wizard. The following explains how to do this.

Note: The procedure is slightly different when using Roland printers with XG INKS (CMYKOrGr). Refer to page 5-2 for more details.

» Related topics:

- ITERATIVE PRINTER CALIBRATION (PAGE 14-3)
- HALFTONE PROOFING (PAGE 18-1)
- CREATING AN RFP FILE (PAGE 5-2)

How to Create RFP Files

Step 1: Basis Settings

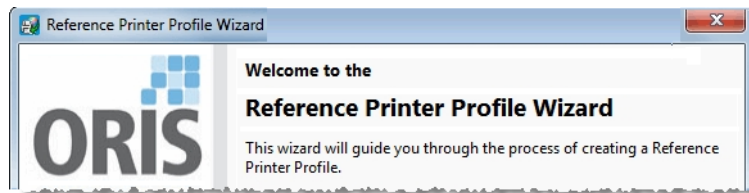
1. Readjust the printer using the software tools provided by the printer manufacturer (see page 13-1).
2. When using an external measurement device, make sure it is selected (FILE | PREFERENCES, MEASUREMENT DEVICE SETUP tab).

The measurement devices embedded in HP DesignJet Z printers use a UV-cut filter and a black backing. ICC profiles for standard printing conditions, however, are usually created without any filter and with a white backing. If you match colors to these ICC profiles you should use an external measurement device for creating RFP files.

Step 2: Start Wizard

Select UTILITIES | REFERENCE PRINTER PROFILE | CREATE BY WIZARD to start the Reference Printer Profile Wizard.

Fig. 23-1 RFP Wizard – Welcome Page



Step 3: Print Linearization Test Chart

The PRINT dialog allows you to print a linearization file. Do the following:

1. Select the printer and the COLOR MODE.
2. Set the PRINTING METHOD in accordance with the printing method your RFP files will be used for. Select SCREENDOT, for example, if the file will be used for proofing halftone data. See also page 18-2.
3. Using the PRINT FILE option, select a test chart that matches the selected printer, COLOR MODE, PRINTING METHOD and your measurement device. See below for more details.
4. On the PRINT LAYOUT tab, make sure to disable all options.

Rotation or scaling settings will be ignored if the printer's embedded measurement device is used.

5. Click the HELP button if you need help with the other options.
6. Click the PRINT button to output the linearization test chart.

Choosing Test Charts

- CONTINUOUS TONE or SCREENDOT PLUS

A suitable test chart is selected automatically for the selected printer and the measurement device specified using FILE | PREFERENCES. If you are not using one of the supported measurement devices, click BROWSE to select a test chart.

We recommend to use Color 21 Step xxx.pdf. Several variants of this test chart for different measurement devices are available in the installation directory ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\.

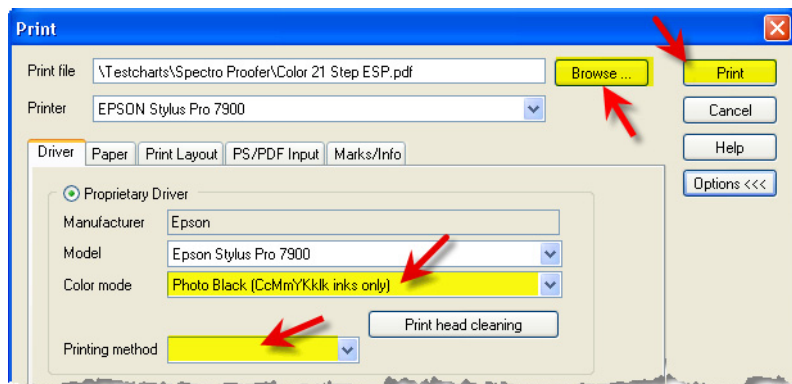
- SCREENDOT (proofing halftone data)

Select a *screened* linearization test chart (1-bit file). Create this file from one of the Color 21 Step xxx.pdf files in the Testcharts installation directory. Refer to page 18-2 for more details.

- Roland printers with XG INKS (CMYK+orange+green)

Make sure to use a 6-channel test chart that includes orange and green patches. We recommend to use Color 21Step 6clr Linearization xxx.pdf. Variants of this test chart for some measurement devices are available in the Testcharts installation directory.

Fig. 23-2 RFP Wizard – Print Options for Linearization Test Chart



Step 4: Measure and Reduce Solid Density

6-channel Linearization – Roland Printers with XG INKS (CMYKOrGr)

A dialog displays the measured solid densities for all 6 color channels. Enter the solid density values to be used for linearization by slightly reducing the measured values.

Click the DETAILS button to see all measured and density target values and the resulting printer linearization curve. This allows color experts to fine-tune the linearization process and to check for possible measurement errors.

Set the maximum target densities	Measurement	
Cyan	2.41	2.33
Magenta	1.87	1.75
Yellow	1.88	1.74
Black	2.41	2.23
Orange	1.85	1.75
Green	1.58	1.51
		Details...

4-channel Linearization – Other Printers or Ink Sets

Do the following in the LINEARIZATION BY DENSITIES dialog:

1. Only if an *external* measurement device is used:

Click the MEASURE PRINTED COLOR PATCHES button and measure the linearization test chart. Then save the measurements.

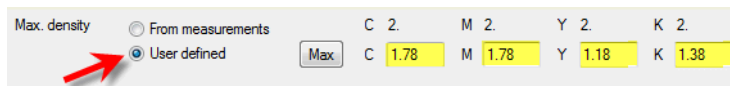
Color %	Target C	Meas. C	Target M	Meas. M	Target Y	Meas. Y	Target K	Meas. K
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Buttons: Add, Remove, Load..., Save..., Measure printed color patches... (highlighted with a red arrow)

Bottom buttons: OK, Cancel, Apply, Help

2. Reduce the solid densities values. The new values should be as follows:
 - Low enough to compensate for possible density variations across different proof printers or fluctuations that may occur over time.
 - At least 0.15–0.20 units higher than the solid densities achieved in the printing process to be simulated.

To do so, set the MAX. DENSITY option to USER DEFINED and enter the reduced values into the **C**, **M**, **Y** and **K** boxes.



3. Click **OK** and enter a file name to create the linearization file (*.lin).
4. Optimize the linearization file if there are density deviation greater than 0.02 units.

Step 5: Continue...

Follow the instructions on the screen. You will be guided step by step. Always click NEXT to proceed with the next step or BACK to return to the last step. Click the HELP button if you need help.

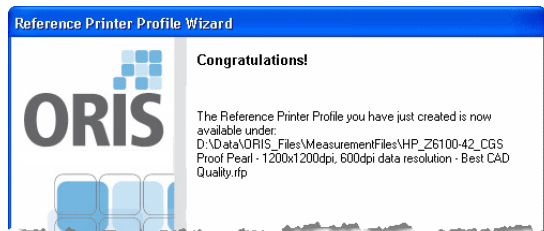
The steps to take include:

- Reduce ink coverage (if paper is wet in dark areas)
- Select characterization test chart
- Measure characterization test chart, save measurement file
- Limit color gamut
- Enter comment (optional)
- Save RFP file
- Embed linearization data into RFP file (optional)

RFP files with embedded linearization data can be used to speed up the calibration process, because the linearization process can be omitted (*express calibration*).

However, embedding linearization data is only supported when using Roland printers with XG INKS (CMYK+orange+green).

Note: If the printer's embedded measurement device is used: Make sure to select a characterization test chart that matches the width of the paper roll. The file ECI2002 CMYK HPZ 36inch.pdf is for 36" paper, for example.



Increasing Color Gamut

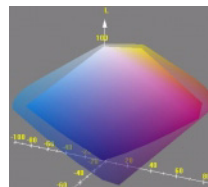
Before using a new reference printer profile you should check whether the color gamut is large enough to simulate the target printing process. If the color gamut is too small, you should recreate the RFP file.

Step 1: Compare Color Gamuts

1. Select UTILITIES | GAMUT VIEWER to start the GAMUT VIEWER tool.
2. Click ADD, select GAMUT OF A MEASUREMENT and load the RFP file you have just created.
3. Click ADD, select GAMUT OF AN ICC PROFILE and load the ICC profile characterizing the printing process.
4. Compare the two color gamuts.

The reference printer's color gamut must be larger than that of the printing process, i.e. there must be no out-of-gamut colors.

In addition, there must be a certain space between the borders of the two color gamuts, but this space must not be too large.



5. If the color gamut is too small, recreate the reference printer profile using higher solid density values (see **Step 2** below).

Step 2: Recreate RFP File

To recreate the RFP file, rerun the Reference Printer Profile Wizard (see page 23-2). Proceed in the same way as before. When reducing the solid density values (see page 23-4), however, do the following:

- Click LOAD and select the measurement file of your linearization test chart (unless the test chart has been measured automatically).
- Into the **C**, **M**, **Y** and **K** boxes next to USER DEFINED, enter solid densities which are 0.2 units higher than those used previously.

Max. density	C	M	Y	K
☐ From measurements	1.80	1.80	1.40	2.00
☒ User defined	2.00	2.00	1.60	2.20

For example, if your previous reduction was to **C1.80**, **M1.80**, **Y1.40**, **K2.00**, you should now use **C2.00**, **M2.00**, **Y1.60**, **K2.20**.

Further Reducing Color Gamut

In a load balancing concept, a group of identical printer models needs to be calibrated to the same *reference printer profile* (RFP file). Refer to page 14-7 for more details.

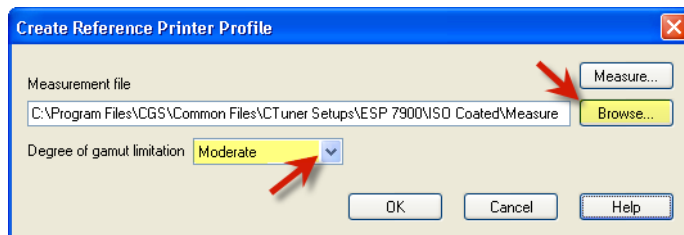
If one of the printers has a small color gamut, it may not be possible to successfully minimize the delta E values during the iterative printer calibration process. In this case it may help to further reduce the RFP file's color gamut.

Proceed as follows:

1. Select UTILITIES | REFERENCE PRINTER PROFILE | CREATE. This opens the CREATE REFERENCE PRINTER PROFILE dialog (see Fig. 23-3).
2. Click the BROWSE button.
3. Load the measurement file (*.txt) of the characterization test chart (e.g. ECI2002) that was used for creating the RFP file.
4. Change the DEGREE OF GAMUT LIMITATION option, e.g. from MINOR to MODERATE.
5. Click **OK** and save the modified RFP file.

Note: This dialog also allows you to create new RFP files. It is assumed that you have output a characterization test chart on a linearized printer.

Fig. 23-3 'Create Reference Printer Profile' Dialog



24 Global Color Corrections

Having color-matched your printer, you may want to correct deviations affecting the entire range of a primary color, e.g. a cast in yellow. This is done by creating gradation files. Usually only minor corrections of 1-2% in the quarter tones, midtones or three quarter tones are required.

If iterative color matching has been used, gradation corrections are usually not required, because the color match is very precise already.

Print an image on your printer and also on the target device to be matched and visually compare the results. We recommend to do this under standard lighting conditions (D50, 5000°K).

Step 1: Start Gradation Tool

The GLOBAL COLOR CORRECTION dialog (see Fig. 24-3) allows you to create and edit gradation files. Proceed as follows to open this dialog:

To modify the settings of an output queue:

1. Select the output queue (see page 16-1).
2. Click the  button.
3. Select the COLOR CORRECTION tab (see Fig. 24-1).
4. Click the EDIT button next to the ORIS_DAT COLOR TABLE option.
5. A question dialog may appear.
If so, select I WANT TO ... MAKE MANUAL CORRECTIONS and click **OK**.
This opens the COLOR TABLE dialog (see Fig. 24-2).
6. Enable one of the following options:
 - GLOBAL COLOR CORRECTION (creates *.grd files)
 - PROOFER GRADATION (creates *.pgr files)

Refer to *About Gradation Files* (page 24-5) for more details.

- Click on the NEW button next to the respective options. Click on BROWSE instead if you want to select an existing gradation file.

To modify independently of output queues:

Take one of the following actions:

- Select COLOR | GRADATION, then select the *.grd or *.pgr file. – or:
- Double-click a *.grd or *.pgr file in Windows Explorer.

Fig. 24-1 Color Correction Options

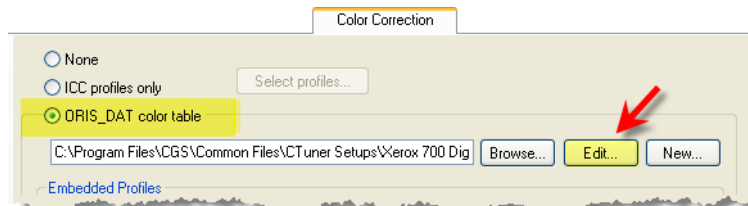


Fig. 24-2 'Color Table' Dialog

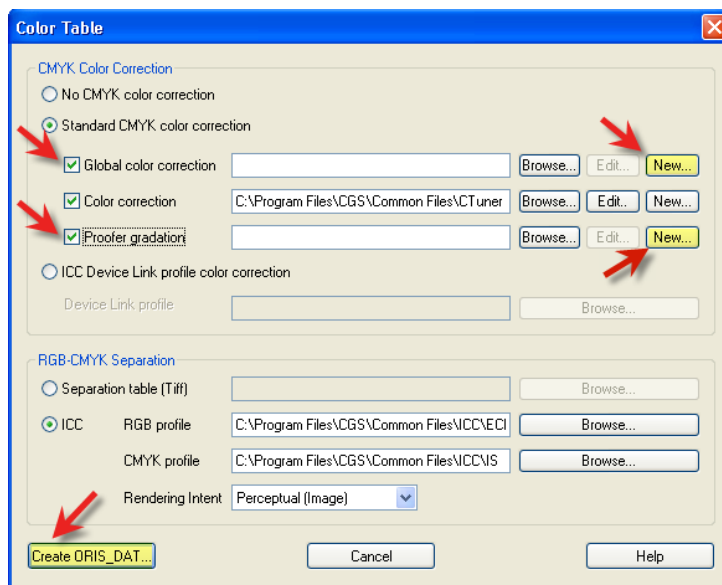
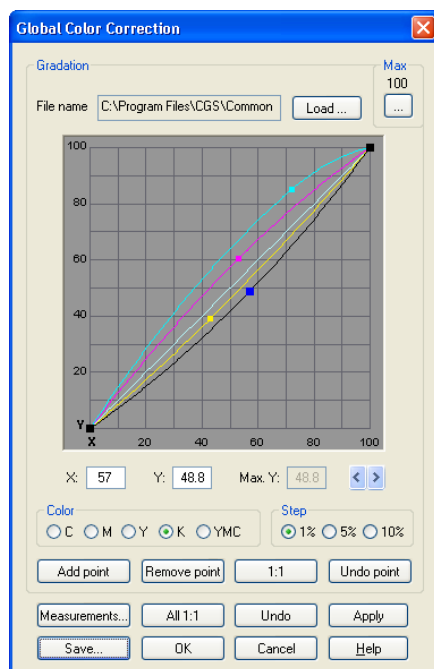


Fig. 24-3 'Global Color Correction' Dialog



Step 2: Create and Edit Gradation Curves

Use the GLOBAL COLOR CORRECTION dialog as follows (see Fig. 24-3):

1. Click LOAD if you want to modify an existing gradation curve.
2. Select the color channel to be modified by clicking the **C**, **M**, **Y** or **K** option underneath COLOR. Click **YMC** to change the C, M and Y separations at the same time. The curve corresponding to the selected channel is indicated by large points.
3. Edit the curve as follows:

- **To add a new point:** Click on the dark area.

To specify the position more precisely, enter the coordinate of the new point into the **X** and **Y** boxes. You may have to click ADD POINT afterwards.

Note that **X** values can only be set in steps of 1, 5 or 10%, depending on the STEP option.

- **To select a point:** Click on it or use the arrow buttons. 
The selected point is displayed in dark blue and its coordinate appears in the input boxes.
 - **To move a point:** Drag it with the mouse.
To precisely move a point up or down, select the point, then enter the new coordinate into the **Y** box. You can restore the point at its prior location by clicking **UNDO POINT**.
 - **To delete a point:** Right-click or **SHIFT**-click on it.
Alternatively, select the point, then click on **REMOVE POINT**. You can restore the point you have deleted by clicking **ADD POINT**.
 - **To make the selected curve linear:** Click on **1:1**.
 - **To make all curves linear:** Click on **ALL 1:1**.
4. Click **APPLY** to temporarily save all changes made so far. Click **UNDO** if you want to restore the curve saved temporarily. If you have not yet used **APPLY**, clicking **UNDO** will restore the original unmodified curve.
A curve saved temporarily (or the original curve) remains visible. The curve and its points are displayed in a lighter color.
 5. You can switch to a different color channel at any time. Having done so, repeat steps 3 and 4.
When editing the YMC separations, all changes previously made to separations (except K) are overwritten as soon as you click **APPLY**.
 6. Click **SAVE** to save your changes, then click **OK** to close the dialog.

Note: Take care that the gradation curves are even, smooth and steady.

Step 3: Create Color Table

The gradation file must be incorporated into the ORIS_DAT color table (*.dat) which will be used for proofing.

If you have modified the settings of an output queue:

In the **COLOR TABLE** dialog (see Fig. 24-2), click the **CREATE ORIS_DAT** button and enter a name for the new *.dat file.

If the modification was independent of output queues:

1. Select **COLOR | ORIS_DAT TABLE** to open the **COLOR TABLE** dialog.
2. Make the following settings:
 - Enable **GLOBAL COLOR CORRECTION** to select a *.grd file.
 - Enable **COLOR CORRECTION** to select a *.cc color table.

- Enable PROOFER GRADATION to select a *.pgr file.
3. Select the respective files using the BROWSE button.
 4. Click the CREATE ORIS_DAT button and enter a name for the new *.dat file.

About Gradation Files

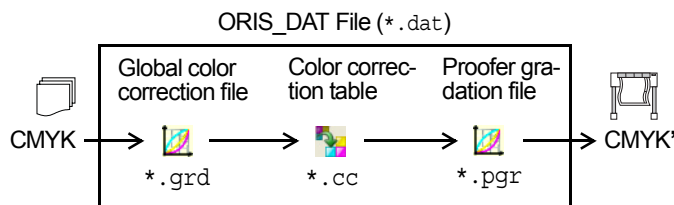
ORIS_DAT color tables may include two types of gradation files:

- a global color correction file (*.grd)
- a proofer gradation file (*.pgr)
- or both

Both *.grd and *.pgr files are of the same type despite the different file extensions. The only difference is the time at which they are applied when the data passes through the ORIS_DAT table.

The diagram below shows that the CMYK input data passes through the *.grd file *before* being converted by the color correction table (*.cc). Then the corrected data passes through the *.pgr file.

Fig. 24-4 ORIS_DAT File and its Components



This shows that corrections defined by a *.grd file apply to primary colors, for example, whereas those defined by a *.pgr file apply to the *corrected* colors – which may have become mixed with other colors owing to the color transformation.

This has the following implications:

- Having created a *.grd file and then fine-tuned the color correction table, you should no longer modify the *.grd file. If you did this, the color correction would no longer apply to the same colors.
- Having created a *.pgr file, you should no longer fine-tune the color correction table, because the gradation corrections defined by the *.pgr file would no longer apply to the same colors.

Therefore, make sure to adhere to the following order:

1. Create a global color correction file (*.grd).
2. Optimize the color correction table (see *Fine Tuning*, page 25-1).
3. Use a proofer gradation file (*.pgr) if additional gradation corrections are required.

25 Fine Tuning

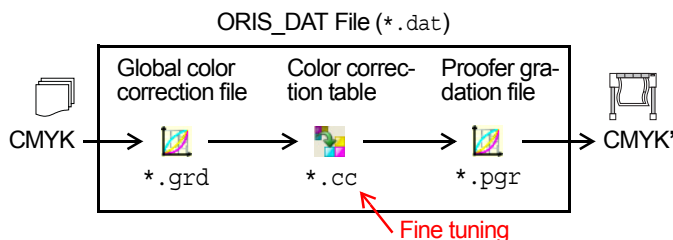
This functionality requires a separate software license (see page 1-7).

Overview

ORIS Flex Pack//Web's sophisticated fine tuning tool – also known as *selective color correction* or *color value correction* tool – allow you to assess color simulations and to further optimize particular colors within a selectable *action range*. These modifications are made to the color correction table (*.cc).

Note: You cannot optimize color matches if you have applied ICC profiles *directly*, because no color table is created in this case (see page 1-16).

Fig. 25-1 Fine Tuning the *.cc Color Table



Optimization Tools

There are various tools which should be applied in the order indicated.

1. *Eliminate Sharp Color Transitions* (see page 25-5)
The SMOOTH function improves the rendering of gradients.
2. *Optimize All Colors Automatically* (page 25-7)
All color deviations are minimized automatically.

3. *Optimize Selected Colors Automatically (page 25-8)*

Having loaded the measurement values, you can sort them by the greatest delta E values and have the program automatically minimize the color deviations.

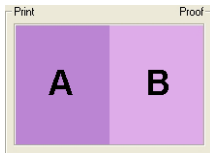
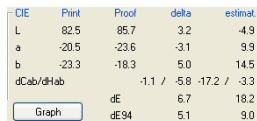
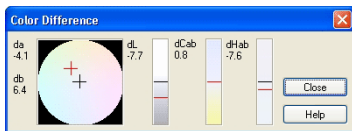
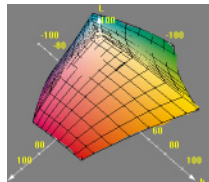
4. *Manual Fine Tuning (page 25-10)*

If you feel that certain colors are still not matched perfectly, you can visually match them to a sample of the target color displayed on the screen.

If iterative color matching has been used, the first two tools are not required, because they are part of the color matching algorithm.

Evaluation Tools

The fine-tuning tool can also be used to visually and numerically evaluate the quality of a calibration or color match.

Visual representation of the colors to be matched A = target color B = proof color																																											
Numerical representation of colors to be matched and of color deviations, e.g. delta E	 <table><thead><tr><th></th><th>CIE</th><th>Print</th><th>Proof</th><th>delta</th><th>estimat</th></tr></thead><tbody><tr><td>L</td><td></td><td>82.5</td><td>85.7</td><td>3.2</td><td>4.9</td></tr><tr><td>a</td><td></td><td>-20.5</td><td>-23.6</td><td>-3.1</td><td>9.9</td></tr><tr><td>b</td><td></td><td>-23.3</td><td>-18.3</td><td>5.0</td><td>14.5</td></tr><tr><td>dCab/dHab</td><td></td><td></td><td>-1.1 / -5.8</td><td>-17.2 / -3.3</td><td></td></tr><tr><td>dE</td><td></td><td></td><td>6.7</td><td>18.2</td><td></td></tr><tr><td>dE94</td><td></td><td></td><td>5.1</td><td>9.0</td><td></td></tr></tbody></table>		CIE	Print	Proof	delta	estimat	L		82.5	85.7	3.2	4.9	a		-20.5	-23.6	-3.1	9.9	b		-23.3	-18.3	5.0	14.5	dCab/dHab			-1.1 / -5.8	-17.2 / -3.3		dE			6.7	18.2		dE94			5.1	9.0	
	CIE	Print	Proof	delta	estimat																																						
L		82.5	85.7	3.2	4.9																																						
a		-20.5	-23.6	-3.1	9.9																																						
b		-23.3	-18.3	5.0	14.5																																						
dCab/dHab			-1.1 / -5.8	-17.2 / -3.3																																							
dE			6.7	18.2																																							
dE94			5.1	9.0																																							
Visual representation of Lab color deviations																																											
3-dimensional representation of measurement values, allows users to detect and visualize the following: - Out-of-gamut colors - Action range of optimizations - Color deviations (error vectors)																																											
3-dimensional representation of the following: - Color correction table - Difference between two color correction tables																																											

For more details refer to page 25-11 and 25-20.

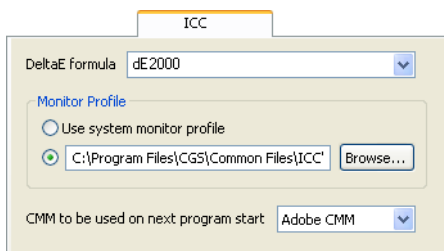
Step 1: Color Management Settings

If colors are compared visually, make sure they are displayed accurately on the screen. This requires that your monitor has been calibrated and profiled. Then do the following:

1. Select FILE | PREFERENCES to open the PREFERENCES dialog.
2. Click on the ICC tab (see Fig. 25-2).
3. Select the DELTA E FORMULA to be used for optimizing color matches. We recommend to use DELTA E 2000.
4. Select USE SYSTEM MONITOR PROFILE if the monitor profile has been set as your computer's default monitor profile. Otherwise click BROWSE to select the profile.

Note: If no specific ICC profile is available for your monitor, we recommend to use the default profile `eciRGB_v2.icc`. This file resides in the installation directory `...\Program Files\CGS\Common Files\ICC\`.

Fig. 25-2 'Preferences' Dialog, 'ICC' Tab



Step 2: Start Fine Tuning Tool

The SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5) allows you to fine-tune *.cc tables. Proceed as follows to open this dialog:

To fine-tune independently of output queues:

Take one of the following actions:

- Select the COLOR | SELECTIVE COLOR CORRECTION command, then select the *.cc file. – or
- Double-click a color correction table (*.cc file) in Windows Explorer.

To modify the settings of an output queue:

1. Select the output queue (see page 16-1).
2. Click on  to open the SETTINGS dialog.
3. Click on the COLOR CORRECTION tab (see Fig. 25-3).
4. Click on the EDIT button (ORIS_DAT COLOR TABLE option).
5. A question dialog may appear. If so, select I WANT TO ... MAKE MANUAL CORRECTIONS and click **OK**.

This opens the COLOR TABLE dialog (see Fig. 25-4).

6. Click on EDIT next to the COLOR CORRECTION option (which displays the name of the *.cc color table to be optimized).

Fig. 25-3 'Settings' Dialog, 'Color Correction' Tab

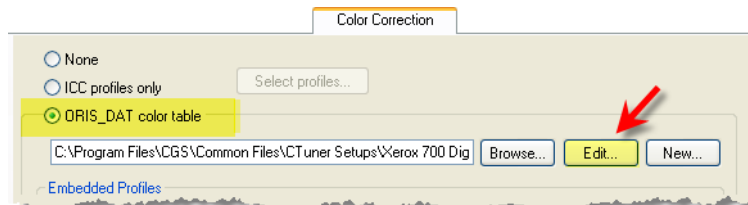


Fig. 25-4 'Color Table' Dialog

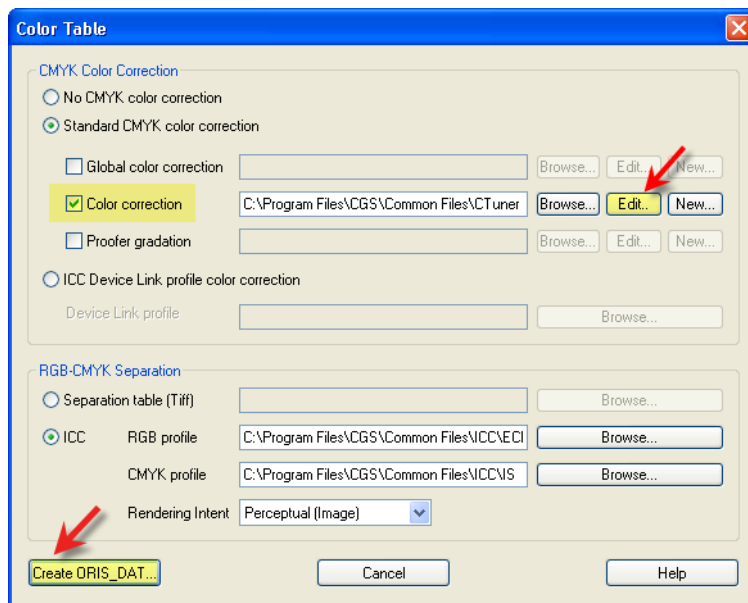
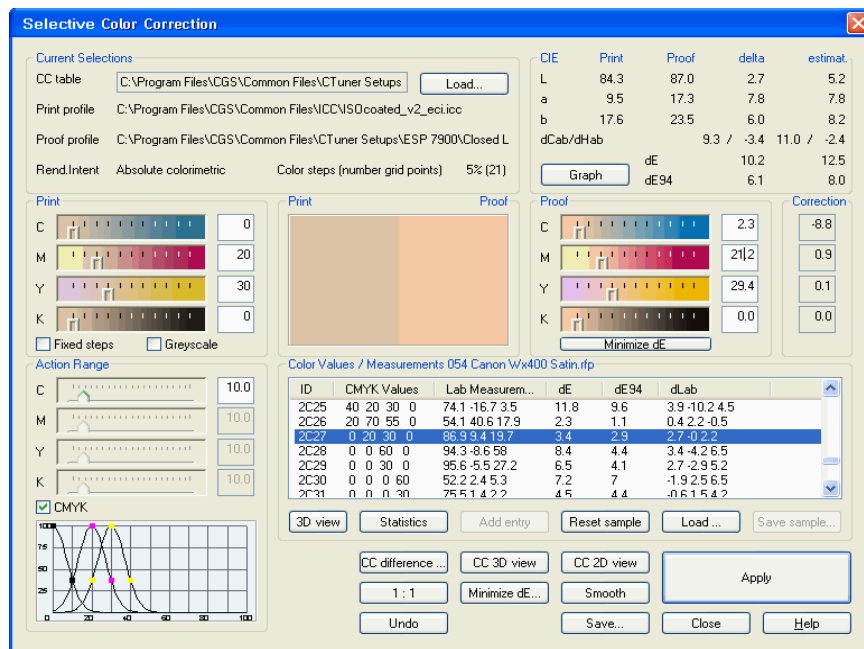


Fig. 25-5 'Selective Color Correction' Dialog



Step 3: Eliminate Sharp Color Transitions

In the SELECTIVE COLOR CORRECTION dialog, you can eliminate sharp transitions between colors by clicking on the SMOOTH button. This causes gradients to be rendered more smoothly (without tone jumps), but may also lead to a slight increase in color deviation (delta E).

- Clicking on SMOOTH modifies colors within the current *action range* only, i.e. the selected color and similar colors (recommended).
- SHIFT-clicking this button modifies the *entire* color correction table (usually not recommended).

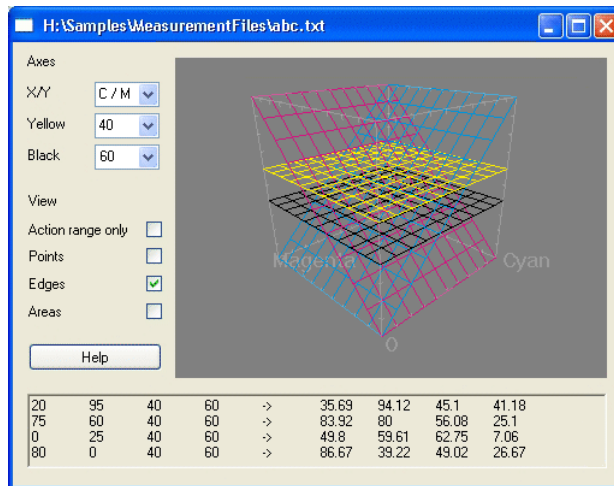
Skip this step if you have performed iterative color matching, because this function smooths colors automatically.

The best way to detect sharp color transitions is using the 3-dimensional view of the *.cc color correction table (see Fig. 25-6).

This tool is only available if you have enabled the ENHANCED COLOR VALUE CORRECTION FUNCTIONS... option on the GENERAL tab of the PREFERENCES dialog. Select FILE | PREFERENCES to open this dialog.

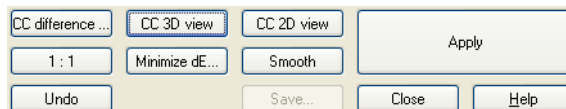
Using the UTILITIES | SMOOTH MEASUREMENT FILE command you can eliminate sharp color transitions from measurement files.

Fig. 25-6 3D View of Color Table

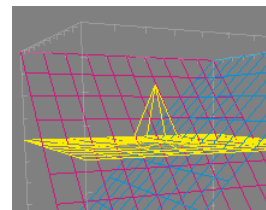


How to Detect/Eliminate Sharp Transitions

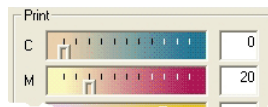
1. In the SELECTIVE COLOR CORRECTION dialog, click on the CC 3D VIEW button to get a graphical representation of the color correction table (see Fig. 25-6). Click on HELP for details on using this dialog.



2. Search the 3D graphic for a sharp color transition. To do so, select two color axes (X/Y) and set all combinations of color tones for the two separation with fixed color values.

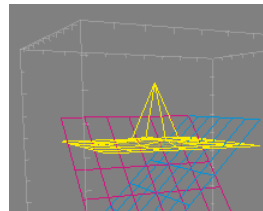


3. Having found a sharp transition, click on its peak. This color is selected automatically in the SELECTIVE COLOR CORRECTION dialog.

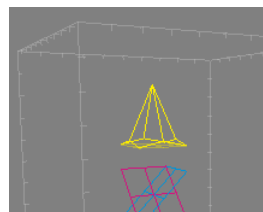


4. Enable the ACTION RANGE ONLY option in the dialog of the 3D graphic.

Now the colors within the current *action range* are displayed only.

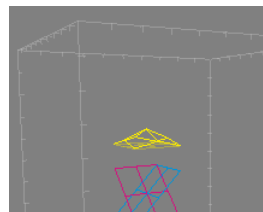


5. Reduce the *action range* until nothing else but the sharp transition is displayed (if possible). Refer to page 25-13 for more details.



6. Click the SMOOTH button in the SELECTIVE COLOR CORRECTION dialog. The transition becomes smoother.

You may have to click SMOOTH several times.



7. Save the optimized color correction table (*.cc) and close the dialog.

8. Convert the *.cc table into an ORIS_DAT file (*.dat).

To do so, click the CREATE ORIS_DAT button in the COLOR TABLE dialog (see Fig. 25-4). If this dialog does not appear automatically, use the COLOR | ORIS_DAT TABLE command to open it.

Step 4: Optimize All Colors Automatically

The MINIMIZE DE function reduces *all* color distances to the smallest possible value. This function can be applied to selected color channels.

Skip this step if you have performed iterative color matching, because all color deviations have been minimized already. The MINIMIZE DE function would have little or no effect in this case.

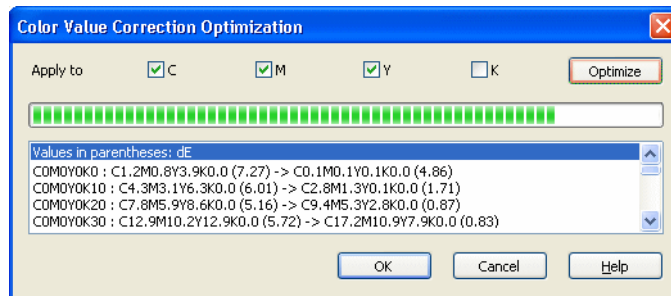
1. Click the MINIMIZE dE button at the bottom of the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5). The dialog shown in Fig. 25-7 appears.
2. Use the APPLY TO parameter to deselect the color channels that should not be modified, e.g. Black (**K**).
3. Click the OPTIMIZE button to start the calculation. The corrections are logged in the window as the calculation progresses.

Note: The *action range* defined in the SELECTIVE COLOR CORRECTION dialog has no effect on this optimization.

4. Click **OK** to close the dialog, then save the optimized color correction table (*.cc).
5. Also close the SELECTIVE COLOR CORRECTION dialog.
6. Convert the *.cc table into an ORIS_DAT file (*.dat).

To do so, click the CREATE ORIS_DAT button in the COLOR TABLE dialog (see Fig. 25-4). If this dialog does not appear automatically, use the COLOR | ORIS_DAT TABLE command to open it.

Fig. 25-7 'Optimizing Selective Color Correction' Dialog



Step 5: Optimize Selected Colors Automatically

You can measure a test chart, load the measurement file in ORIS Flex Pack/Web and automatically optimize the colors with the largest deviations.

We recommend to use the ECI 2002 test chart. Several variants for different measurement devices are available in the directory ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Flex Pack\\Testcharts\\.

About Measurement Files

If you have used iterative color matching, measurement files exist already. The last measurement file is loaded automatically when the fine tuning tool is started, provided that *measuring* was the last action during iterative color matching (i.e. you have not recalculated the color match).

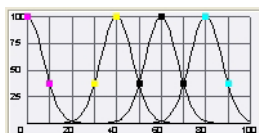
If you have used the Setup Wizard, your measurement files are located in the directory ...\\Program Files\\CGS\\Common Files\\CTuner Setups\\<printer or format>\\<queue>\\Measurement\\. If several measurements were made, make sure to use the *last* measurement file.

How to Optimize Selected Colors Automatically

1. In the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5), click LOAD and select the measurement file (if it has not been loaded automatically).



2. Specify the ACTION RANGE using the sliders at the bottom left. This defines the degree by which your changes will also affect similar colors. Refer to page 25-13 for more details.



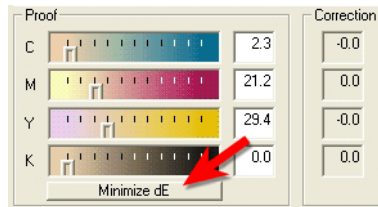
3. Click on the **dE** column header to sort the values by delta E. The colors with the largest deviations are now at the top of the list (see also page 25-18).

Color Values / Measurements Canon W82000 PG 1200dpi S-MYColor4.txt

ID	CMYK Values	Lab Measureme...	dE	dLab
A1	10 20 20 20	74.5 4.3 3.8	2.8	1.7 -1.2 -1.8
A2	80 65 65 0	25.6 20.3 -29.1	46.5	-11.7 36.1 -26.9
A3	100 85 85 80	50 -26.5 31	55.5	37.2 -24.4 33.2
A4	0 7 7 0	32 37.7 -16.8	72.6	-61.5 33.8 -18.9
A5	100 85 85 60	59.8 -10.7 49.4	69.6	45.4 -5.5 52.5

3D view Statistics Add entry Reset sample Load...

4. Click on the first color in the list, then click the MINIMIZE dE button displayed below the sliders on the right-hand side (see below). Repeat this for all colors to be optimized.



5. Save the optimized color correction table (*.cc) and close the dialog.
6. Convert the *.cc table into an ORIS_DAT file (*.dat).

To do so, click the CREATE ORIS_DAT button in the COLOR TABLE dialog (see Fig. 25-4). If this dialog does not appear automatically, use the COLOR | ORIS_DAT TABLE command to open it.

Step 6: Manual Fine Tuning

Theoretically, automatic optimization provides a perfect color simulation. However, the way colors are perceived by the human eye is not identical to the measurement techniques used by a spectrophotometer.

In some color areas, for example, even very small deviations (less than 1 delta E) may be noticeable to the human eye, whereas in other color areas delta E values greater than 5 may still appear acceptable.

To overcome this problem, use ORIS Flex Pack//Web to precisely match any color to a sample of the target color displayed on the screen.

Step 6.1: Evaluate Match and Measure Colors

1. Print an image on your printer and also on the target device to be matched.
2. Compare the results under standard lighting conditions (D50, 5000°K).
3. If you feel that particular colors are not perfectly matched, measure the CMYK values of these colors.

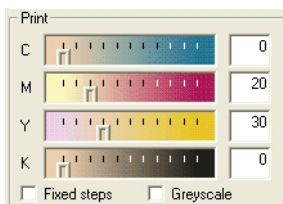
You can use ORIS PDF Tuner for this purpose. Open the image, place the cursor on the color area and note down the values displayed in the COLOR window.

A demo version of ORIS PDF Tuner is installed together with ORIS Flex Pack//Web and can be started by double-clicking the file ...\\Program Files\\CGS\\FLEX PACK WEB\\ORIS Hotfolder Manager\\DDS.EXE. The program is fully functional for 30 days after installation.

Step 6.2: Selective Color Corrections

1. Open the SELECTIVE COLOR CORRECTION dialog (see **Step 2**).
2. Select the CMYK colors you have noted down.

Use the sliders on the left-hand side or enter the CMYK values into the input boxes next to them.



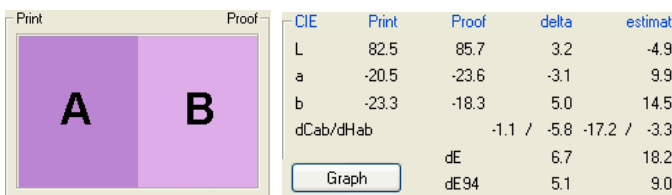
Color corrections are only *fully* applied to such values that are multiples of 5 or 10, respectively (such as **C15 M20 Y45**). Intermediate values are interpolated. See also page 25-14.

To be able to reselect the CMYK colors conveniently, you should save them as a *color sample* file (*.PRB) using ADD ENTRY (see page 25-18).

3. First evaluate the simulation visually (PRINT and PROOF color boxes), and then numerically (values at the top right). With a good color match, the two colors look identical and delta E approaches zero.

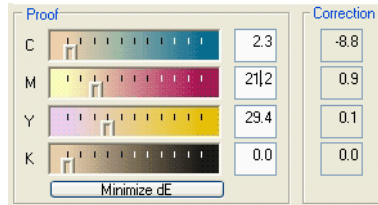
Note:

Most important is a good match of chroma (delta Cab) and hue (delta Hab), which is often achieved at the expense of luminance (delta L).

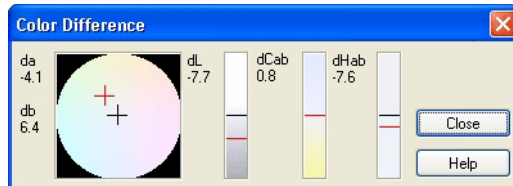


4. If required, optimize the corrected color using the sliders on the right-hand side. Alternatively, type the new CMYK values into the input boxes displayed next to these sliders.

The amount by which you have changed the corrected color is displayed in the gray boxes underneath CORRECTION.



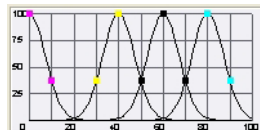
5. To visually evaluate the color deviation, click on the GRAPH button in the top right dialog area. The color deviation is now displayed graphically as the distance between two crosses or lines, respectively.



The circle represents the color values on the **a** and **b** axes of the Lab color space, allowing you to evaluate the match in hue. The color bar to the right of the circle represents the **L** axis and allows you to evaluate the match in brightness. The other bars allow you to evaluate the match in chroma (delta Cab) and hue (delta Hab).

When correcting the color match using the sliders on the right (see above), try to move the colored cross on top of the black cross representing the color to be matched. Also try to move the colored lines on top of the black lines.

6. When the color match is perfect, specify the *action range* (see below) using the sliders at the bottom left. This defines the degree by which your changes will also affect similar colors.



7. Click APPLY to incorporate your modification into the color correction table (*.cc). You can reverse your correction by clicking UNDO.
8. Repeat these steps to correct the match of additional colors.
9. Save the optimized color correction table and close the dialog.
10. Convert the *.cc table into an ORIS_DAT file (*.dat).

To do so, click the CREATE ORIS_DAT button in the COLOR TABLE dialog (see Fig. 25-4). If this dialog does not appear automatically, use the COLOR | ORIS_DAT TABLE command to open it.

Setting the Action Range

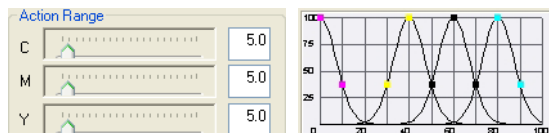
When you selectively optimize corrected colors (see page 25-8 and 25-10), similar colors are automatically modified by a certain degree to achieve smooth transitions between changed and unchanged colors. The generated transitions follow a bell-shaped curve (normal distribution).

The range over which similar colors are affected by your modifications is referred to as the *action range*. The larger the *action range*, the more neighboring colors are affected by your changes.

To define the action range, use the sliders at the bottom left or type the values into the respective input boxes (see Fig. 25-8). You can specify a different range for each color separation. To define the same range for all separations, enable the **CMYK** option displayed below the **K** slider and use the **C** slider or input box – all other values are set automatically.

To the right of the sliders, the action ranges are displayed as curves. On each curve, the effect on color values that are multiples of 10 is marked by a point.

Fig. 25-8 Action Range Setting and Visualization



Action Range Size

The correct size of the *action range* depends on many factors and it is therefore impossible to establish general rules. In many cases, the default size of 10% for all color separations is appropriate.

It is usually not advisable to use action range sizes of more than 30%. This usually leads to many unwanted color changes resulting in sharp transitions which would make your color correction table useless.

If you have already achieved a very good color match (e.g. after several iterations of printing, measuring and optimizing), you should be even more careful. Very small action ranges (lower than 10%) are usually appropriate in this case.

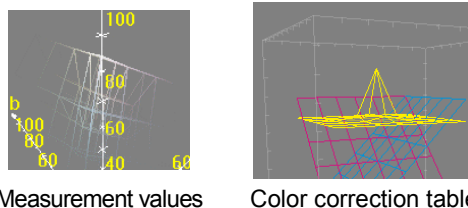
Action Range Visualization

The *action range* size can be represented graphically if you have loaded a measurement file.

Click the 3D VIEW button in the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5) to get a 3-dimensional representation of the Lab measurement values. If you enable the ACTION RANGE ONLY, SHOW WEIGHTING and PROOF EDGES options, the currently selected color is displayed along with the similar colors located within the current action range.

Refer to page 25-20 for more details.

Fig. 25-9 3D Views Limited to Current Action Range



Advanced users may also find the 3-dimensional representation of the color correction table useful. This tool allows you to immediately view the range of colors that changes when you fine-tune a corrected color. Click the CC 3D VIEW button to use this tool.

Note: These buttons are only available if you have enabled the ENHANCED COLOR VALUE CORRECTION FUNCTIONS... option on the GENERAL tab of the PREFERENCES dialog. Select FILE | PREFERENCES to open this dialog.

Action Range for Intermediate Values

Color transformations only take *full* effect on tonal values located at the base points of the *.cc color table. These are values which are multiples of 5 or 10, respectively, depending on the color table precision (see Fig. 25-11).

If the color table precision is 10%, for example, only colors which are multiples of 10 (e.g. **C30M50Y10K20**) are fully corrected. All intermediate values are interpolated.

When selecting the target colors for which the simulation should be optimized (see Fig. 25-10), you should therefore enable the **FIXED STEPS** option. This makes sure that you can only select colors that are multiples of 5 or 10, respectively.

Fig. 25-10 *Selecting Colors to be Optimized*

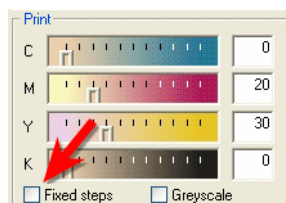
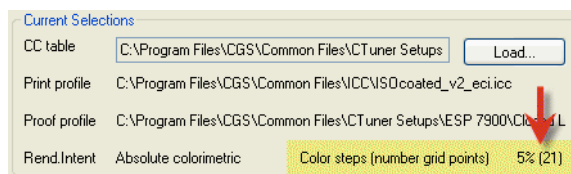


Fig. 25-11 *Indication of Color Table Precision*

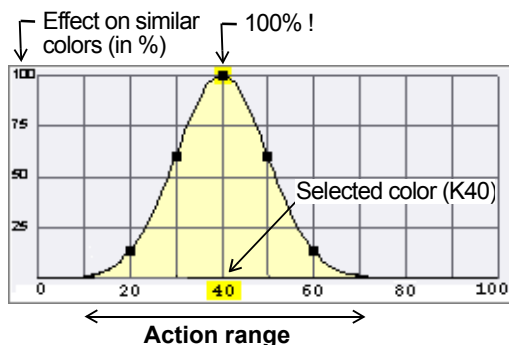


Examples

In the following it is assumed that the color table precision is 10%.

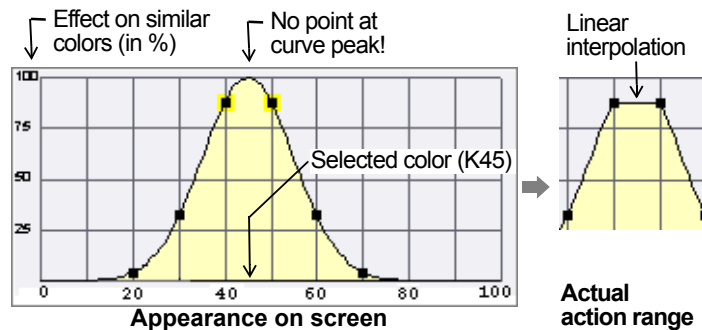
In the first example, the corrections are made to K40. The point at the peak of the curve shows that the changes will have full 100% effect on this color and about 60% effect on K30 and K50.

Fig. 25-12 *Action Range for Values that are Multiples of 10*



In the second example, the correction is made to K45, which is not located at the base point of the color table. Changes to the corrected color will have *less* than 100% effect on this color (about 88% only), because the effect is interpolated from that of the K40 and K50 value.

Fig. 25-13 Action Range when Correcting Intermediate Values



Using Color Value Files

Using the LOAD button in the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5), you can open files containing CMYK and/or Lab values. All files can be used to conveniently select the colors to be matched by the printer – instead of using the sliders on the left (see Fig. 25-10).

The following color value files are supported:

- Reference files (*.ref, *.txt)
Files that describe a particular test chart, i.e. the CMYK values of the individual color patches.
- Color samples (*.PRB)
A collection of CMYK values stored using the ADD ENTRY button in the SELECTIVE COLOR CORRECTION dialog.
- Measurement files (*.lab, *.txt)
Files containing the Lab values measured on a printed test chart as well as the CMYK values of the corresponding color patches.
- Reference printer profiles (*.rfp)
Files characterizing a *reference printer*, including CMYK color values and the related Lab measurement values.
- ORIS spot color libraries (*.osc)
Spot color files with the color names and the CMYK equivalence values defined by the spot color manufacturer.

Loading a Color Value File

1. Click LOAD (see Fig. 25-14). A file selection dialog opens.
2. Select a FILE TYPE so that the files you want appear in the file list.
3. Select the file you want and click OPEN. The colors defined in the file are listed in the dialog.
4. If you have loaded a measurement file which does not relate to one of the test charts included in the ORIS Flex Pack//Web software, you are prompted to select the corresponding reference file.
5. Click RESET SAMPLE if you want to remove the file.

Fig. 25-14 Reference File Loaded During Fine Tuning

Color Values / Measurements 2P_ECI2002CMYK_cmf_01.txt

ID	CMYK Values	Lab Measure...	dE	dE94	dLab
A1	10 20 20 20	72.7 4.1 6.5	2.8	2.5	1.3 -1.2 2
A2	80 65 65 0	37 -17 -1.9	13.2	11	-0.5 -13.1 1.2
A3	100 85 85 80	11.8 -2.9 -1.7	2.8	2.7	-1.3 -0 -2.4
A4	0 7 7 0	93.5 4.1 7	2.1	2.1	2.0 7 -0.3
A7	85 100 70 0	17.7 16.6 -8.5	8.2	8.2	-8.2 0.5 -0.5

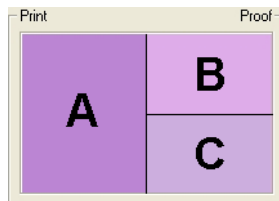
3D view Statistics Add entry Reset sample Load...

Selecting Colors From a Color Value File

To load a CMYK color defined in a color value file, click on the corresponding list entry. The selected target color is displayed in the left-hand color box, the new color calculated by the color correction table appears in the right-hand box (see Fig. 25-15).

If you have loaded a measurement file or RFP file, the right-hand box splits in two and the measured Lab color is displayed in the lower part, while the upper part continues to display the calculated color.

Fig. 25-15 Colors to be Matched Displayed Visually



- A:** Target color to be matched
B: Color calculated by color correction table
C: Measured color

Contents of a Color Value File

Color Values / Measurements 2P_ECI2002CMYK_cmf_01.txt

ID	CMYK Values	Lab Measure...	dE	dE94	dLab
A1	10 20 20 20	72.7 41.6 5	2.8	2.5	1.3 -1.2 2
A2	80 65 65 0	37.17 -1.9	13.2	11	-0.5 -13.1 1.2

ID

The meaning of this column depends on the type of color value file:

- Ascending number (color samples) – *or*
- Color name (ORIS spot color libraries) – *or*
- Index of test chart patch

CMYK VALUES

CMYK values of the color to be matched (e.g. test chart color patch) or the CMYK equivalence values of a spot color.

LAB MEASUREMENTS

Lab values calculated for the proof printer by the color correction table and the ICC proof profile. If a measurement file or RFP file is loaded, this column displays the measured Lab values.

dE

Delta E, i.e. absolute distance in the Lab color space between the proof color and the target color to be matched.

dLAB

Distances between the proof color and target color on the **L**, **a**, and **b** axes of the Lab color space (delta L, delta a and delta b).

You can sort the list by clicking the column headers. This allows you e.g. to quickly find the colors with the largest delta E values.

Saving Color Values

If you frequently fine-tune the same colors, it is a good idea to save them to a file. Such files are referred to as *color samples* (*.prb). Having loaded a *.prb file you can easily reselect the colors by clicking on a list entry. This is much more convenient than having to use the sliders or typing the values in.

You can also create *reference files* (*.ref) for user-defined test charts from the colors selected during fine tuning. A reference file defines the CMYK values of the color patches to be measured.

How to create a color sample

1. If you want to create a reference file, make sure the ENHANCED COLOR VALUE CORRECTION FUNCTIONS... option is enabled. Use the FILE | PREFERENCES | GENERAL command to enable this option.
2. If you want to add colors to an existing file, click LOAD and open the *.prb or *.ref file. Otherwise click RESET SAMPLE (if available) to make sure no color value file is loaded.
3. Specify the CMYK color you want using the sliders or input boxes on the left (see Fig. 25-10), then click ADD ENTRY. You may be asked whether you want to create a color sample (*.prb) or reference file (*.ref).
4. Select another color and click ADD ENTRY. Repeat this until you have added all colors you want.
5. Click SAVE SAMPLE to save the file. Type a name, then click SAVE. The appropriate file extension (prb or ref) is added automatically.

Tip: If you have printed an image and measured specific colors that need to be optimized, you should note down the color values, select them in ORIS Flex Pack//Web and save them as a color sample.

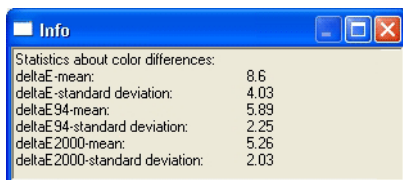
Evaluating Quality of Color Simulation

ORIS Flex Pack//Web provides various tools which allow you to visually and numerically evaluate the quality of your color simulation.

Measurement Statistics

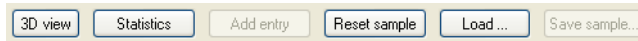
If a measurement file is loaded, you can click the STATISTICS button to get statistical information about the measurement data. This information includes the average color difference and standard deviation calculated according to various formulas (e.g. delta E and delta E2000).

Fig. 25-16 Measurement Statistics Window



3D View of Measurement Values

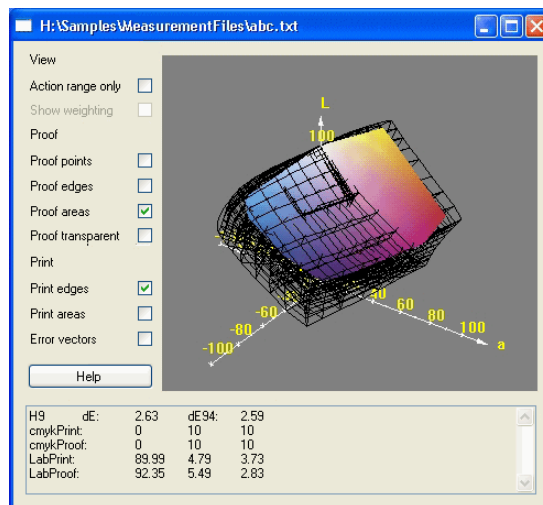
If you have loaded a measurement file, you can get a 3-dimensional representation of the Lab measurement values and the color gamut of the printing process and printer. To do so, click the 3D VIEW button in the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5). It is located below the color value list.



You can use this tool before and after any fine tuning and during iterative color matching. It can help you answer the following questions:

- How good is the quality of the color simulation? How large are the color deviations in specific areas?
- Can the proof printer simulate all colors? Are some out of gamut? Where are the problem areas?
- What is the *action range* of my corrections? When I fine-tune the corrected colors, how many similar colors will be affected and to which extent?

Fig. 25-17 Example of 3D Measurement Value Display



The proof printer's color gamut is represented by the colored areas, the black lines indicate the color gamut borders of the printing process. The black lines stick out at certain areas, which shows that the proof printer's color space is not large enough to completely simulate the printing process.

Navigating the Color Space

You can rotate, move and scale the graphic to closely inspect the color gamuts from all sides and at any scale.

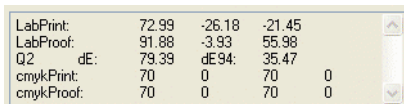
Function	Mouse button	Main keypad	Numeric pad
Zoom in	Right, move up	PAGE UP, +	9, +
Zoom out	Right, move down	PAGE DOWN, -	3, -
Rotate to left	Left, move to left	LEFT ARROW	4
Rotate to right	Left, move to right	RIGHT ARROW	6
Rotate upward	Left, move upward	UP ARROW	8
Rotate downward	Left, move downward	DOWN ARROW	2
Move	SHIFT+left	SHIFT+ARROW	SHIFT+ARROW
Reset (revert to initial view)		0	0

Picking up Lab and Delta Values

If you click on any of the measurement values in the 3D graphic (see Fig. 25-17) – on a cross, the intersection of two lines or the end of an error vector – the current value is added to the window area at the bottom.

This window area lists the name of the test chart color patch and the corresponding CMYK values, the measured Lab values and the color deviation (delta E, delta E94). New values are appended to the list.

Fig. 25-18 List of Selected Measurement and Delta Values



LabPrint:	72.99	-26.18	-21.45
LabProof:	91.88	-3.93	55.98
Q2 dE:	79.39	dE94:	35.47
cmYkPrint:	70	0	70 0
cmYkProof:	70	0	70 0

Customizing Representation

The options on the left of the window (see Fig. 25-17) allow you to modify the way the 3D graphic is represented. You can hide and display measurement values, error vectors and the color gamuts of the printing process and printer, for example. The meaning of these options is explained below.

ACTION RANGE ONLY

- ☒ Only the color currently selected in the SELECTIVE COLOR CORRECTION dialog is displayed, along with similar colors located within the current *action range* (i.e. colors that will also be modified during fine tuning, see also page 25-13).
- ☐ All measurement values are displayed.

SHOW WEIGHTING

This option is only available if ACTION RANGE ONLY is enabled.

- ☒ The colors located within the current *action range* are displayed with a varying degree of transparency.
This indicates the impact of fine tuning on colors which are similar to the currently selected color. The higher the degree of transparency, the less a color will change if the current color is corrected.
- ☐ The colors are represented in an opaque way. This is the default setting if ACTION RANGE ONLY is *disabled*.

PROOF POINTS

- ☒ The coordinates of the measurement values in the Lab color space are displayed in the form of small crosses.
The crosses are represented in the color of the respective measurement value or, if PROOF EDGES is also enabled, in black.

PROOF EDGES

- ☒ Connecting lines are displayed between the individual measurement values. They are represented in the respective color.

PROOF AREAS

- ☒ Colored areas are displayed which visualize the borders of your printer's color gamut.

PROOF TRANSPARENT

- ☒ The measurement values are displayed in a transparent way.
This allows you to precisely compare the color gamut of your printer and that of the printing process to be simulated (if PRINT EDGES or PRINT AREAS is enabled).
- ☐ The measurement values are displayed in an opaque way.

PRINT EDGES

- ☒ Black lines appear which indicate the borders of the color gamut of the printing process to be simulated.
If PROOF AREAS is additionally enabled, black lines sticking out of the colored areas indicate out-of-gamut colors, i.e. the printer is not capable of simulating these colors.

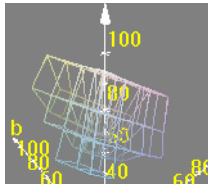
PRINT AREAS

- ☒ The color gamut borders of the printing process are visualized by black areas.
If PROOF AREAS is additionally enabled and black areas are visible, some of your colors are out of gamut and cannot be simulated on your printer.

ERROR VECTORS

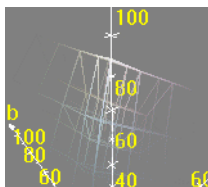
- ☒ Small arrows indicating the amount of color deviation appear.
Error vectors begin at the Lab value to be matched (printing process) and end at the Lab value that was measured (printer). The longer the arrow, the larger the color deviation.
Error vectors may also indicate limitations of your measurement device.

Examples



- ☒ ACTION RANGE ONLY
- ☒ PROOF EDGES
- ☐ All other options

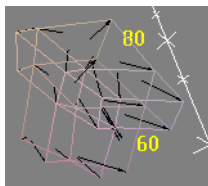
Allows you to examine a section of the proof color space. You can step through the color space to view different sections using the sliders in the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-10).



Like the previous example, but:

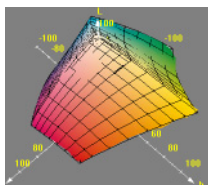
- ☒ SHOW WEIGHTING additionally enabled

The degree of transparency indicates the impact of fine tuning on the respective color. High degree = little impact, low = great impact.



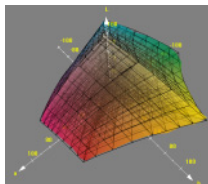
- ☒ ACTION RANGE ONLY
- ☒ PROOF EDGES
- ☒ ERROR VECTORS
- ☐ All other options

The error vectors indicate the amount of color deviation. They begin at the target color to be matched and point to the measured proof color.



- ☒ PROOF AREAS
- ☒ PRINT EDGES
- ☐ All other options

The black lines indicate that the proof color space is not large enough to simulate all of the print colors, i.e. some colors are out of gamut.



Like the previous example, but:

- ☒ PROOF TRANSPARENT additionally enabled.

The transparent representation of the proof color space allows you to precisely compare it with the print color space (black lines).

Graphical View of Color Correction Table

There are additional tools for advanced users in the SELECTIVE COLOR CORRECTION dialog (see Fig. 25-5). They allow them to view the current color correction table in a 3- or 2-dimensional graphic and to compare two color correction tables visually using a 3D graphic.

Use the following buttons:

- CC 3D VIEW
- CC 2D VIEW
- CC DIFFERENCE

For more details click the HELP button in the respective dialogs.

26 Tips and Tricks

Using Custom Paper on Canon Printers

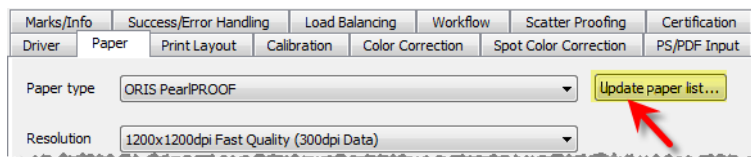
This information is relevant to you if you are using custom paper types in addition to genuine ORIS or Canon paper.

Canon's Media Configuration Tool allows you to define custom paper types and to load the media information to the printer. This feature is supported for Canon imagePROGRAF printers of the iPFx4x0 series (e.g. 6400, 6450, 8400 or 9400). The Media Configuration Tool is available on the CD that comes with the printer.

ORIS Flex Pack//Web can retrieve the media information from the printer and add the custom paper names to the PAPER TYPE list. The following explains how this is done. This feature is supported for the printing methods CONTINUOUS TONE, SCREENDOT and SCREENDOT PLUS.

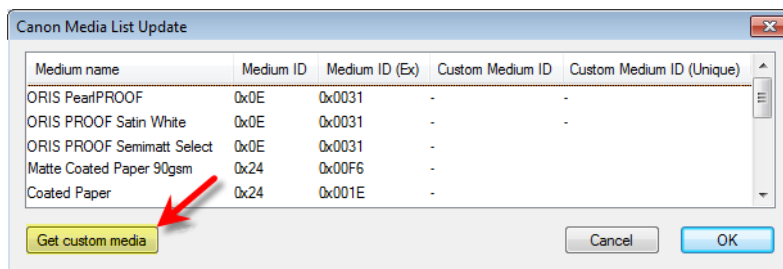
How to Register Custom Paper

1. Select an iPFx4x0 print queue.
2. Click  to open the SETTINGS dialog.
3. Select the PAPER tab.



4. Click the UPDATE PAPER LIST button.

A dialog appears that lists all types of CGS and Canon print media known to the ORIS Flex Pack//Web program.

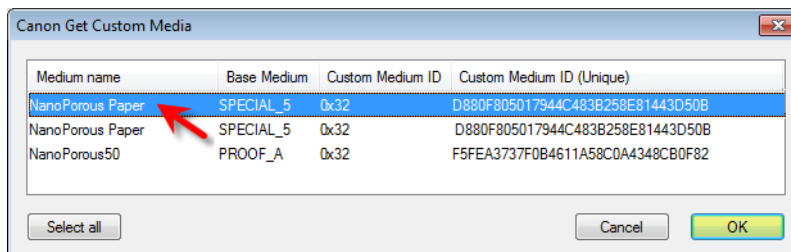


- Click the LOAD CUSTOM MEDIA button.

A dialog appears that lists all custom paper types defined for the printer related to the current print queue.

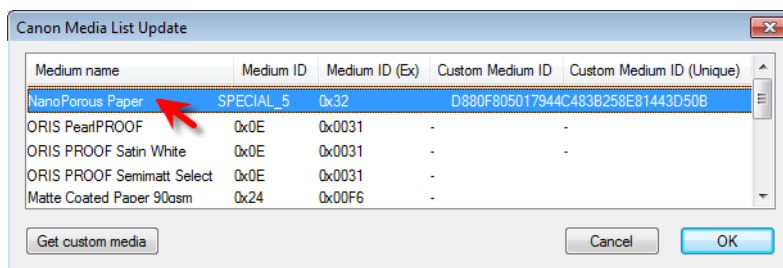
Note:

Make sure the printer is connected and switched on. Custom paper types are only listed if the printer is online.



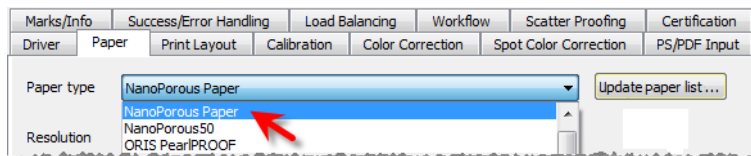
- Select the paper type you want. To select multiple papers, CTRL-click or SHIFT-click or use the SELECT ALL button.
- Click **OK** to close the dialog.

The names of the selected custom paper types appear at the top of the paper type list.



- Click **OK** to close the dialog.

The custom paper types are now available in the PAPER TYPE list of the SETTINGS dialog.



Logging Printing Costs

Using the UTILITIES | LOG PRINTING COSTS command you can create a log file which records information for calculating printing costs.

Modifying Paper White Simulation

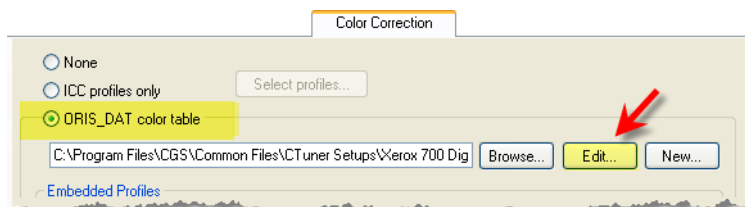
The Rendering Intent used during the iterative color matching process is absolute colorimetric, by default. This means that the paper color will be simulated.

You can modify the paper white simulation or turn it off completely by editing the ORIS_DAT color table.

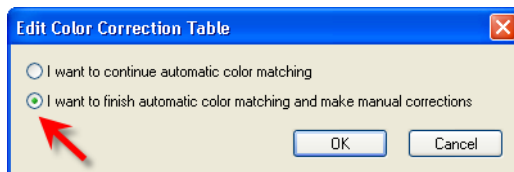
See also *Iterative Color Matching* (page 1-14).

Step 1: Load Color Table

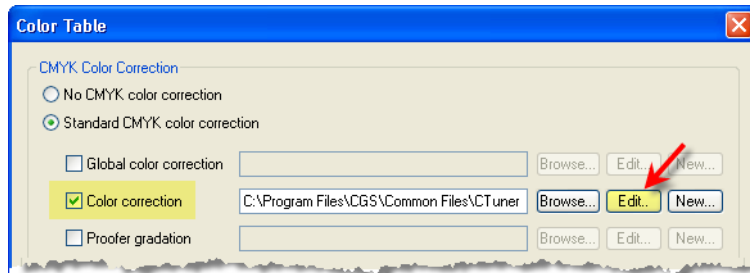
1. Select the output queue (see page 16-1) and click on . This opens the following dialog:



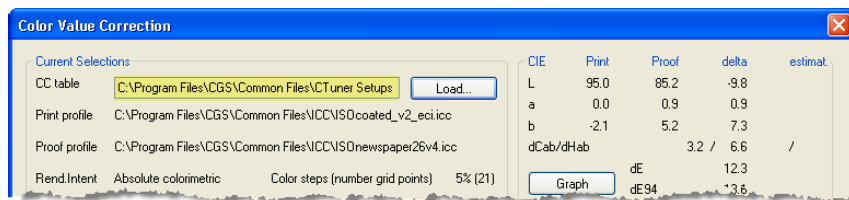
2. Click the COLOR CORRECTION tab, then click the EDIT button.



3. Select I WANT TO...MAKE MANUAL CORRECTIONS, then click **OK**. The COLOR TABLE dialog appears.

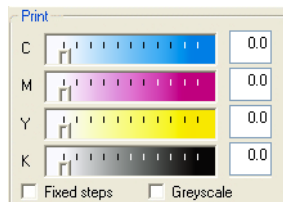


4. Click on EDIT next to COLOR CORRECTION. This opens the SELECTIVE COLOR CORRECTION dialog and loads the color table (*.cc).

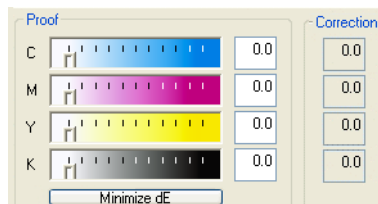


Step 2: Edit Color Table

1. Enter **0** into all of the input boxes under PRINT (on the left). This is usually the default setting.



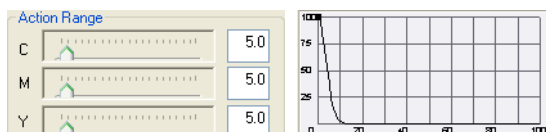
2. Into the input boxes under PROOF (on the right), enter the tonal values to be used for simulating the paper color. Set all of the four values to **0** to turn off the paper white simulation.



3. Enter the *action range*, i.e. the degree by which your changes should also affect similar colors (see also page 25-13).

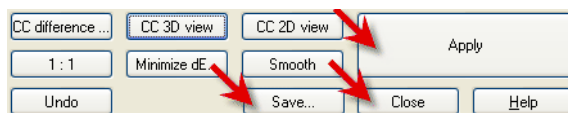
Very small values (1–2) provide color matches with optimum delta E values. Primary colors which are very close to white, however, are still affected by the paper white simulation to a certain extent and may therefore be mixed with other colors.

Slightly higher values (5–10) are likely to provide better visual results.



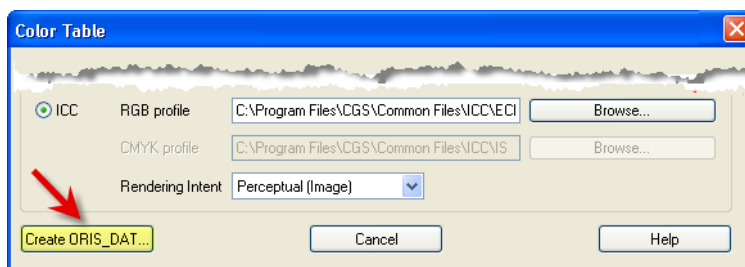
Step 3: Save Changes

1. In the SELECTIVE COLOR CORRECTION dialog, click on APPLY.
2. Click on SAVE. Change the file name, e.g. to ...relative.cc.
3. Click on CLOSE.



4. In the COLOR TABLE dialog, click on CREATE ORIS_DAT.

Also change the file name here, e.g. to ...relative.dat. The *.cc color table will be converted into an ORIS_DAT color table.



5. Click OK to close the dialog.

Note

You can also load color tables (*.cc) directly without selecting an output queue beforehand. To do so, select COLOR | SELECTIVE COLOR CORRECTION, then select the *.cc file. Or double-click a *.cc file in Windows Explorer.

Having modified the color table, assign it to an output queue.

- » RELATED TOPICS:
 - ASSIGNING COLOR TABLE TO NEW QUEUE (PAGE 13-6)
 - MODIFYING OUTPUT QUEUES (PAGE 13-7)
 - FINE TUNING (PAGE 25-1)
 - SELECTIVE COLOR CORRECTIONS (PAGE 25-11)

Printing Multi-File Grayscale Jobs

ORIS Flex Pack/Web is capable of printing 8-bit grayscale documents consisting of multiple files. The files are combined into a print job if they follow certain file naming conventions (see below).

Two methods of starting print jobs are supported:

- Watched folders
- Drop Area (see page 15-1)

The  icon cannot be used. The separation files would not be combined into a job, but printed separately.

See also *Corporate or Non-Standard Spot Colors* (page 22-26).

Supported File Name Patterns

The following abbreviations are used in these patterns:

Job	Any name, identical for all separation files
C	Initial letter of a color separation (C, M, Y or K)
Color	Complete separation name (Cyan, Magenta, Yellow, Black)
nn	Two-digit number, identical for all separation files
< >	Indicates variable text

<Job>_<C>.tif

Example:

- MyJob_C.tif
- MyJob_M.tif
- MyJob_Y.tif
- MyJob_K.tif

<Job>_<Color>.tif

Example:

- MyJob_Cyan.tif
- MyJob_Magenta.tif
- MyJob_Yellow.tif
- MyJob_Black.tif
- MyJob_Pantone 8176 C.tif

<Job>(<C>).tif

Example:

- MyJob(C).tif
- MyJob(M).tif
- MyJob(Y).tif
- MyJob(K).tif

<Job>(<C>)<nn>.tif

Example:

- MyJob(C)12.tif
- MyJob(M)12.tif
- MyJob(Y)12.tif
- MyJob(K)12.tif

<Job>(<Color>).tif

Example:

- MyJob(Cyan).tif
- MyJob(Magenta).tif
- MyJob(Yellow).tif
- MyJob(Black).tif
- MyJob(Pantone 8176 C).tif

<Job>(<Color>)nn.tif

Example:

- MyJob(Cyan)27.tif
- MyJob(Magenta)27.tif
- MyJob(Yellow)27.tif
- MyJob(Black)27.tif
- MyJob(Pantone 8176 C)27.tif

<Job>.<C>

Example:

- MyJob.C
- MyJob.M
- MyJob.Y
- MyJob.K

<Job>.<Color>

Example:

- MyJob.Cyan
- MyJob.Magenta
- MyJob.Yellow
- MyJob.Black
- MyJob.Pantone 8176 C

How to Print Multi-File Grayscale Jobs

Using Drop Area

Select an output queue, then drag the grayscale files onto the Drop Area. Refer to *Output via Drop Area* (page 15-3) for more details.

Make sure to upload all separation files *in one go*. Separation files that are uploaded separately will not be combined into a job.

Using Watched Folders

Add the grayscale files to the watched folder of an output queue. Refer to *Output via Watched Folders* (page 15-1) for more details.

The grayscale files will be combined into a job as soon as the waiting time has elapsed. This is the time during which the file contents has to remain unchanged. When the waiting time has elapsed, the separation files will be combined into a job, even if some of the files are missing.

Database Backup

We strongly recommend to create database backups on a regular basis. ORIS Flex Pack//Web can do this automatically for you at a user-defined interval. You have to schedule a backup task.

It is advisable to keep the fewest possible number of jobs in the output queues when a backup task is running. A backup copy does not include any jobs or queue setup files (e.g. ORIS_DAT color tables).

How to schedule a backup task

1. Select FILE | PREFERENCES to open the PREFERENCES dialog.
2. Select the DATABASE tab.
3. Click the CREATE DATABASE BACKUP TASK button. The SCHEDULE DATABASE BACKUP dialog opens (see Fig. 26-2).
4. Enable the ACTIVATE DATABASE BACKUP button.
5. Specify the daily START TIME for the backup process.
6. Use the BACKUP DIRECTORY option to select the folder the backup copies (*.sql) should be saved to.
7. Into the BACKUP BY USER box, enter the name of a user with the required privileges. Also specify the user's PASSWORD.
8. Enter the NUMBER OF BACKUP COPIES TO KEEP.
9. Close all dialogs using **OK**.

Fig. 26-1 'Preferences' Dialog, 'Database' Tab

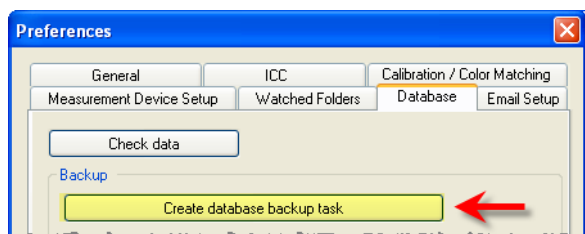
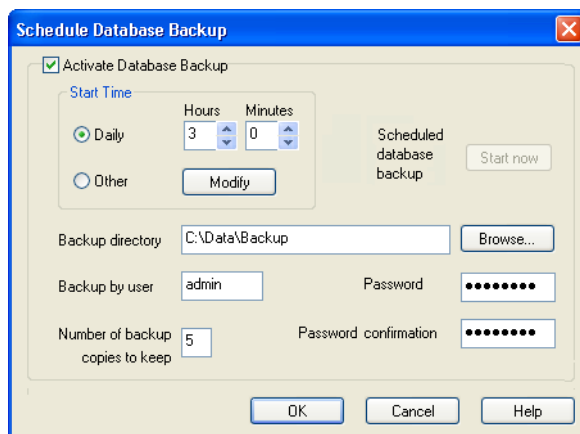


Fig. 26-2 'Schedule Database Backup' Dialog

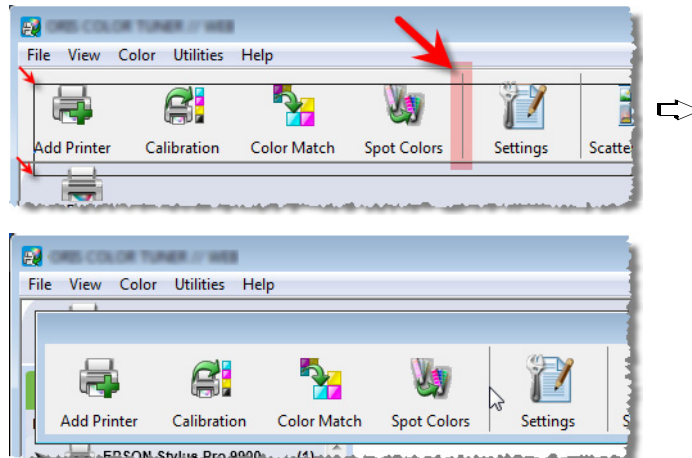


Detaching and Moving Toolbar

The toolbar is attached to the top of the main window by default. You can move it to any location on the screen and also change its shape and orientation. You can easily reattach the toolbar to its previous location or to the top, bottom, right or left of the main window.

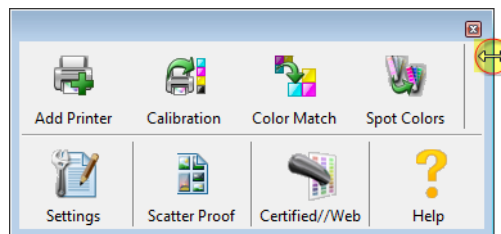
Detaching/Undocking Toolbar

1. Place the cursor on one of the thin vertical lines that separate the toolbar buttons.
2. Hold the left mouse button pressed and drag the toolbar to the new position.



Modifying Toolbar Shape

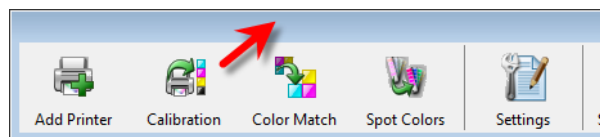
1. Place the cursor on one of the toolbar borders. The cursor changes to a double arrow.
2. Drag the border. The toolbar buttons are rearranged, e.g. in two or three rows or a vertical bar.



Attaching Toolbar to Previous Location

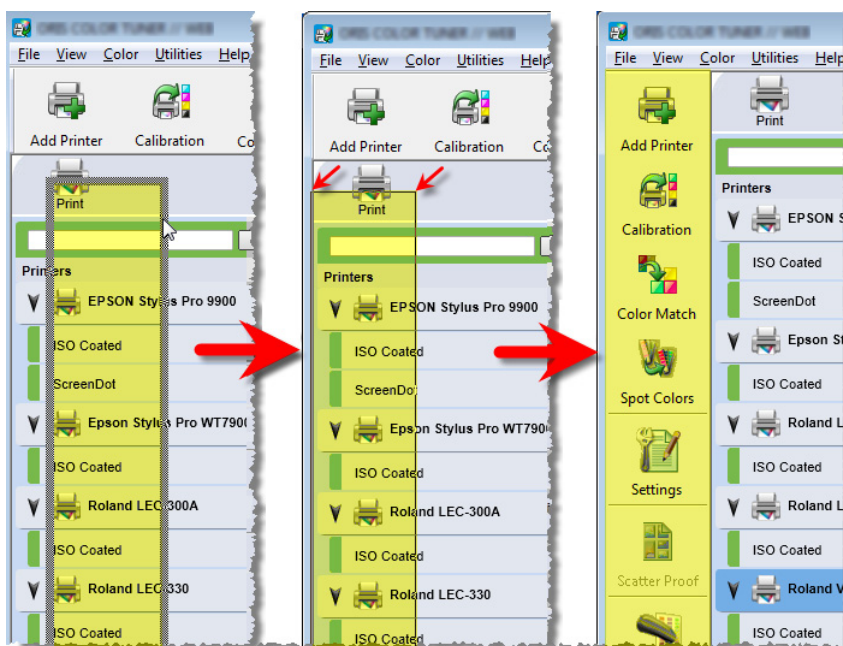
Double-click the toolbar's title bar.

The toolbar will snap back to the place it was attached previously.



Attaching or Docking Toolbar

1. Drag the toolbar near one of the window borders until the toolbar's outline changes.
2. Release the mouse button. The toolbar will snap into place.





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