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Using the BARBIERI Spectrophotometers

Spectro Swing and Spectro LFP

with MonacoProfiler (X-Rite)

Revision 3: March 3, 2009

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Introduction

This document describes how to use the X-Rite MonacoProfiler software for printer profile creation.

The description applies to version 4.7 and 4.8 of the software.

Measurements are made off-line with the measuring software Barbieri Profile-Xpert Gateway and the resulting measurement file is then loaded/ imported into MonacoProfiler.

The Profile-Xpert Gateway software is supplied with your measuring instrument or available for free download from the following web site: <u>http://www.profile-xpert.com</u>

CMYK profiling using BARBIERI CMYK Targets

The following targets are recommended to be used for CMYK profiling:

	Description	MonacoPROFILER name		
CMYK_03	corresponds to the ECI2002	ECI Target, scramble patches		
	Random Layout target			
CMYK_08	ECI2002 target on 3 pages	ECI Target, scramble patches		
	(9 x 9 mm patch size)			
CMYK_04	corresponds to the ECI2002	ECI Target		
	Visual Layout target			
CMYK_05	corresponds to the ANSI IT8.7/4	IT8.7/4 Extended, scramble		
	target	patches		

Use the job files supplied with the Gateway software. Data is saved in "BARBIERI" format.

Edit the supplied job files in "Advanced mode" in the Gateway software and make sure only Lab values are saved:

Save Spectral Values
Save Lab Values
Save XYZ Values
Save Density Values

The Profile-Xpert Gateway software creates an ASCII text file with extension "*.CIE".

Proceed as follows:

- Run MonacoPROFILER and select the "Output" profiling section.

💓 Mo	nacoPR	OFILER			
<u>File</u> C	ptions)	Help	-		
					MonacoPROFILER
				Monitor	
			E	Create ICC profiles for your monitors	
				Input Create ICC profiles for your input devices	
				Output	
			S	Create ICC profiles for your output devices	
			THE	Editor	
712	đ.		-	car you output promes	
1				© 2005 X-Rite, Incorporated All Rights Reserved www.xrite.com	
Ready	1				NUM

- Select "Create New Profile" of type "CMYK"

Eile Options Help	
Select Profile Data	MonacoPROFILER
Would you like to create a new profile, or work with	h existing profiles?
Select your printer type:	
СМҮК	
Ink Colors: 1) Cyan	
2. Magenta	
3. Yellow	
4. Black.	e
Would you like to linearize your profile?	
This option determines the state of the printer so that a recall	ibration may be made later.
Ready	NUM //

Select the "Spectrolino" measuring device Perform Help Select pour measuring device: Device: Device Device Device: Device Device Device: Device: Device Device

-

- Select your corresponding target type as described above

MonacoPHUFI	LER	
File Uptions Help	1	
	Patch Options	MonacoPROFILER
	Choose media size Choose the media size you will use to print the target.	Patch preview:
	Media Size: 🗛 💌	
	Select patch set Select a patch set from the "Quality" list. Quality. ECI target	
	Select patch options: Select "Scramble Patches" if desired. Scrambling the patch set helps prevent incorrect patch values resulting from device drift and inconsistent ink density.	
	Soramble Patches Save or print the patches Click Save Patches to save the target for printing from another application; or, click "Print" to print the target directly from here."	1/1 🔜
Ready	are racres. Print Patches If you must leave this application to print the target from another app selecting "He-Save Session". When printing is complete, re-enter "File>Open Session".	ilication, save your settings by this application and select

- Cancel the connection to the instrument

MonacoPROFILER	×
Checking for a connected spectrophotometer, please wait.	
[Cancel]	

- Press "Import" button

MonacoPROFILER File Options Help		-				
Read Patches			м	onaco	PROFIL	LER
	Ex	Ac		a	b	
	Reading:		Page 1,	Column	11. Re	T ow A1
ieady			CalUde		N	

- Set "Files of type: All files" and load the ".CIE" file in the "Measurements" folder of Profile-Xpert Gateway

Open	? ×
Look jn: 🔁 LFP 🗤	<u>_</u> = 🗈 💕 🎫 -
CMYK_03.bin CMYK_03.CIE CMYK_03.icm CMYK_03.lab.txt CMYK_03.spd.txt	
File name: Files of type: All Files	Open Cancel



- Now proceed with profile calculation

RGB Profiling using MonacoPROFILER RGB Target

You need to use Profile-Xpert Gateway version 2.36 or newer which supports the MonacoPROFILER file format.

Print the target "MonacoPROFILER-RGB1728-scrambled.tif" available from Barbieri and use the Job "MonacoPROFILER-RGB1728-scrambled" to measure the target.

• Easy (Operation Mode	
Select Job	MonacoPROFILER-RGB1728-Scrambled.txt	•

After the measurement you will have a text file with the L*a*b* values of the measurements to be imported into MonacoPROFILER.

Proceed as follows:

- Run MonacoPROFILER and select the "Output" profiling section.

Options <u>H</u> el	þ		
			MonacoPROFILER
	Q	Monitor Create ICC profiles for your monitors	
		Input Create ICC profiles for your input devices	
	A.	Output Create ICC profiles for your output devices	
		Editor Edit your output profiles	
e		© 2005 X-Rite, Incorporated All Rights Reserved www.xrite.com	
ady			NUM

-	Select	"Create	New	Profile"	of type	"RGB"
---	--------	---------	-----	----------	---------	-------

Uptions Help				
Select Pr	ofile Data	MonacoPROFILER		
- Would j	ou like to create a new profile, or work with e	existing profiles?		
C Dre	ate New Profile C Create Linked Profile	C Update Profile		
- Select v	our printer type:			
RGB	Y			
Ink Colo	s 1 Bed			
	2. Green			
	3. Blue			
- Mould	au lika ta linanzina yang prafila?			
	ou like to linearize your prome?			
This only	size	tion may be made later		
This ope	on determines are state or alle plinker so and, a recalible	nor may be made later.		

- Select the "Spectrolino" measuring device

MonacoPROFILER	
<u>File</u> Options <u>H</u> elp	
Select Device	MonacoPROFILER
Select your measuring device: Device: GrietagMacbeth Spectrolino Connection Port: CDM1 V	
Ready	NUM

Select Media Size A4, Quality 1727 Patches, Scrambled: -

Minu (eseRt)	IAItea	
Ена Бринсе 5	(ac	
	Patch Options	MonacoPROFILER
	Choose media size Choose the media size you will use to print the target.	Patch preview:
	Select a patch set Select a patch set from the "Quality" list. Quality: 1728 Patches	
	Select patch options: Select 'Scramble Patches' if desired. Scrambling the patch set helps prevent incorrect patch values resulting from device drift and inconsistent ink density. Scramble Patches	
	Save or print the patches Click 'Save Patches' to save the target for printing from another application; or, click "Print" to print the target directly from here." Save Patches Print Patches	
TER.	 If you must leave this application to print the target from another applications of the selecting "File>Save Session". When printing is complete, re-enter "File>Open Session". 	plication, save your settings by this application and select
Ready		NUM //

Cancel the connection to the instrument -

MonacoPROFILER	×
Checking for a connected spectrophotometer, please wait	
Cancel	

-



- Set "Files of type: Text file (*.txt)" and pick the measurement file created by the Gateway software and located in the "Measurements" folder of Profile-Xpert Gateway

e name: e name: es of type: Text file (*.txt) Read Patches import Average Export Reset Resume	ם 📫 🖬 נוסי ער אפ	Den Cancel	OFILER
RGB1728-1.txt RGB1728.txt e name: es of type: Text: file (*.txt)		Den Dancel	OFILER
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e <u>n</u> ame: es of <u>type</u> : Text file (^e .txt) nacoPROFILER Jolions Help Read Patches Import Average Export Reset Resume	<u> </u>	Dpen Dancel	OFILER
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Diptions Help Read Patches Import Average Export Reset Resume	Ma	onacoPR	OFILER
Read Patches	Ma	onacoPR	OFILER
Read Patches	MC	onacorn	OFILER
Import Average Export Reset Resume			
Import Average Export Reset Resume			
Reset Resume			
Ex Ac	L	a t	b
	52.36	19.67	-41.05
	40.06	-29.70	23.31
	53.62	24.00	33.51
	63.99	-46.58	41.08
	51.17	31,10	-38.42
	86.73	-20.33	26.70
	31.65	-11.83	23.91
	45.81	28.83	-44.26
	41.73	-21.21	-7.56
	.76.14	-38.68	-16.08
	.77.83	-39.00	-6.23
	75.00	-47.83	37.48
1 of 2 >> Reading:	Page 1,	Column 1,	Row A1
View Split Patches Zoom In	Calibrate		

- Now proceed with profile calculation

Using targets printed from MonacoPROFILER

Targets printed from MonacoPROFILER with "Spectrolino" device selected, will be printed without the autopositioning lines which are necessary for the Barbieri device to automatically position and start measurements. When measuring these targets, proceed as follows:

Run the Gateway software and press "Create new Job"

BARBIERI Profile-Xpert Gatev Program Extras Help	vay		
	Easy Operative Select Job:	none.txt	Create New Job
Gateway	Advanced	Operation Mode	· · · · · · · · · · · · · · · · · · ·

 Select Job "MonacoPROFILER-RGB1728-Scrambled.txt", insert a new name for your job and press "Create new Job"



- Now click on "Advanced Mode" and press Next arrow button



- set the job parameters as required by your target by keeping the File Format "MonacoPROFILER"

Program Extras Help									
	Select Job MonacoPROFILER-NewTarget.txt File format MonacoPROFILER							Create new Job	
10110 11010011 00010110 10110 11010011 00010110								•	
Profile-Xpert Gateway	Number of Patches	Number of Patches x 35			Measuring Mode			-	
	Number of Patches	of Patches y 25		Reflection Up-down		Observer	2	•	
10110 11010011 00010110 001100 01001010 0100110	Number of Pages	2	- (Transmission	Fast (default) Contactless	Density	Status A	•	
100110 01010110 0001011	Number of Patches	1728	-		Creonacuess				
Select job	Target Sixe X (mm)	215.0	V Us	e Autopositioning	3				
Edit / Create job	Target Sixe Y (mm)	160.0	-	Mode 0					
Manual Positioning	Target Size: dimensi	ion of area with pat	tches						
Insert and measure	Number of Measurements per Patch 1 Display						Display Valu	Jes	
🖨 End	Distance of Measure	ements per Patch	10 i	in 1/10 mm				Lab	O Density
	Average Method		1					© xyz	Visual Density
								C Luy	CH(ab)
	Target Image Pre-	view							
									Browse
	Reference File Name								
	References RGB_	03.ref							Browse

Proceed now with measurement and after finishing the measurement, import the resulting text file into MonacoPROFILER.