

October 12, 2026 15:00 CEST

WEBINAR

Barbieri DOC

Digital Output Control Explained

Bringing Color Process Control into Daily Production
Across all Digital Printing Applications



Presented by



Viktor Lazzeri
COO and Co-Managing Director

Guest speaker



André Schwarz
Color Management Expert
Schwarz Consulting

Barbieri DOC

Digital Output Control explained

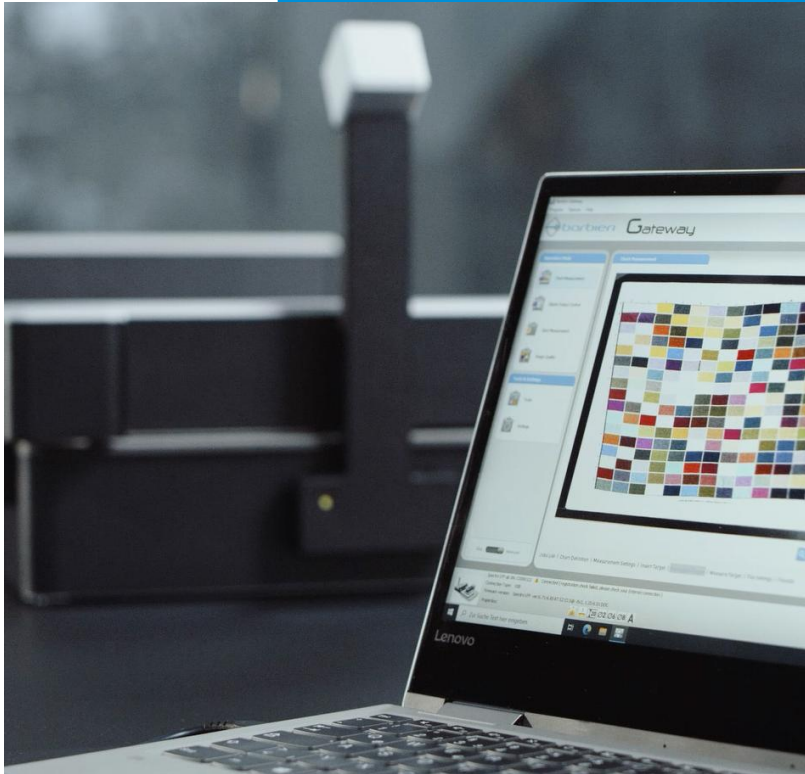
Agenda of the day

1. Intro to Color Process Control in Digital Printing

2. A special Guest will join

3. See the Barbieri DOC in action

4. Q&A



Digital Printing

Any inkjet-based method of printing colorants directly or indirectly onto a material



Digital Printing unlocks **endless possibilities, printable materials** and **vibrant colors**

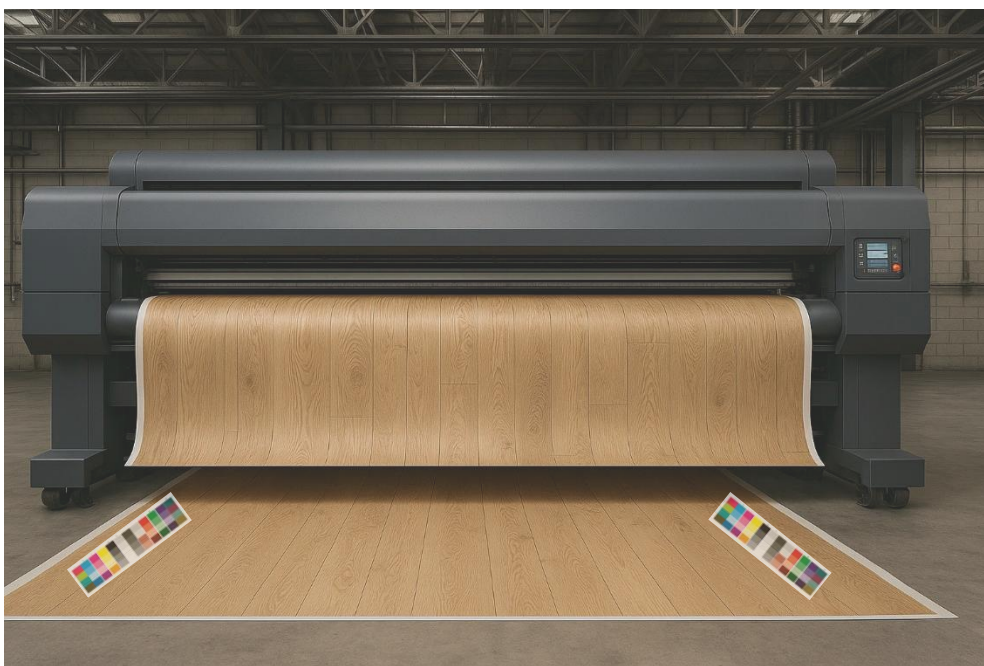


Color deviations can impact **product appeal**, **brand integrity**, and **quality perception**.



Customers expect **repeatability, not just beauty** — consistent color value across substrates, batches, and production sites.

Digital Printers need **color calibration** and **color process control** to produce stable and accurate color results



This is only possible to achieve with a **spectrophotometer**

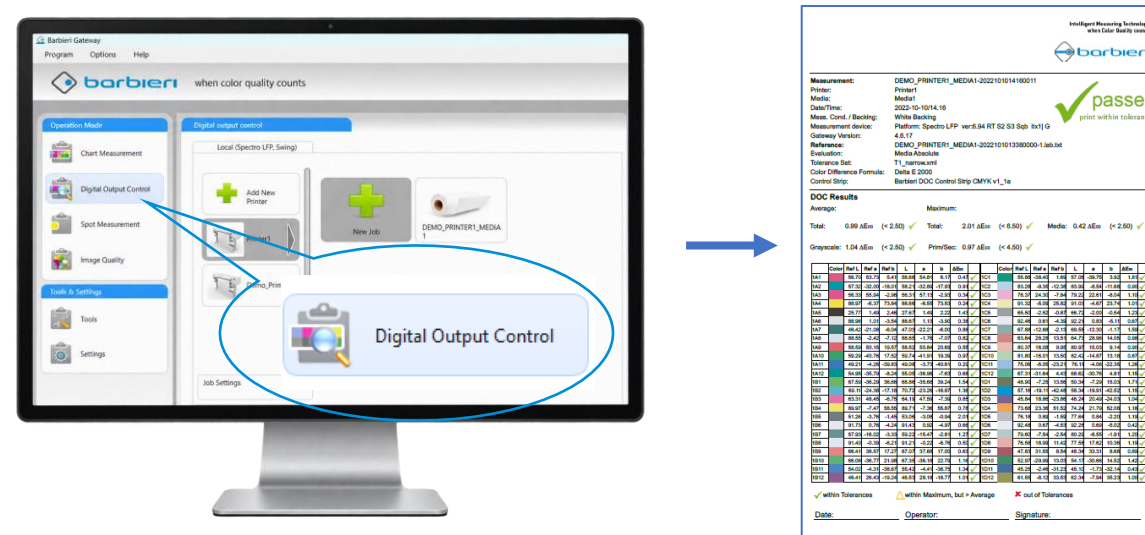
How to perform Color Process Control in Digital Printing with Barbieri DOC?



What is Barbieri DOC

DOC (Digital Output Control) checks whether your printed colors stay consistent by comparing a measured control strip with a saved reference. It gives a **pass/fail** result.

DOC is part of the BARBIERI Gateway software and can be activated for any BARBIERI device.



Process control in digital printing is a series of actions which ensure **output meets expectation** by managing variables which can impact production.

The main objective is to ensure accurate and consistent **color reproduction** by creating a tailored solution for each printer – material - ink combination

Color accuracy: The degree of agreement between a reproduced color and a specified color reference under defined measurement and viewing conditions.

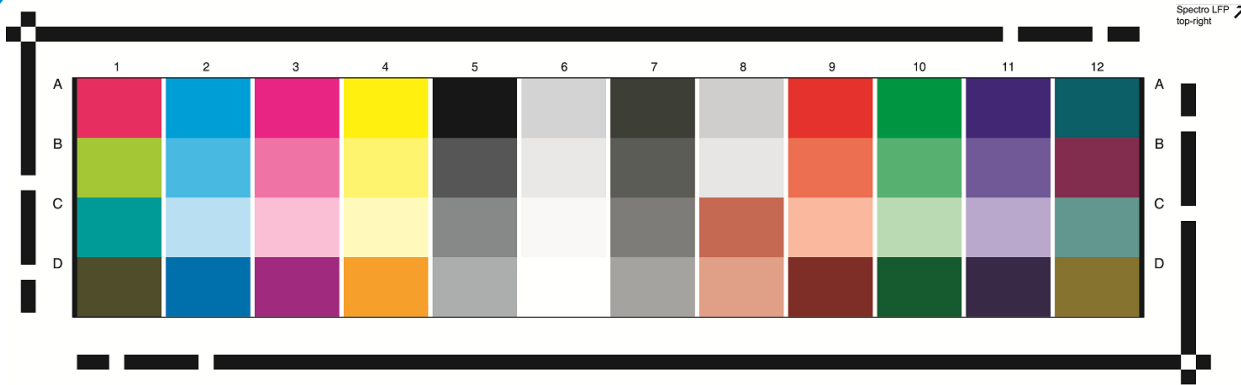
Color stability: The ability of a specified system or sample to maintain its color within defined tolerances over a stated period and under specified conditions.

Accurate and consistent color reproduction: Color reproduction that matches specified color references within agreed tolerances and maintains that agreement throughout a production run and across repeated production runs.

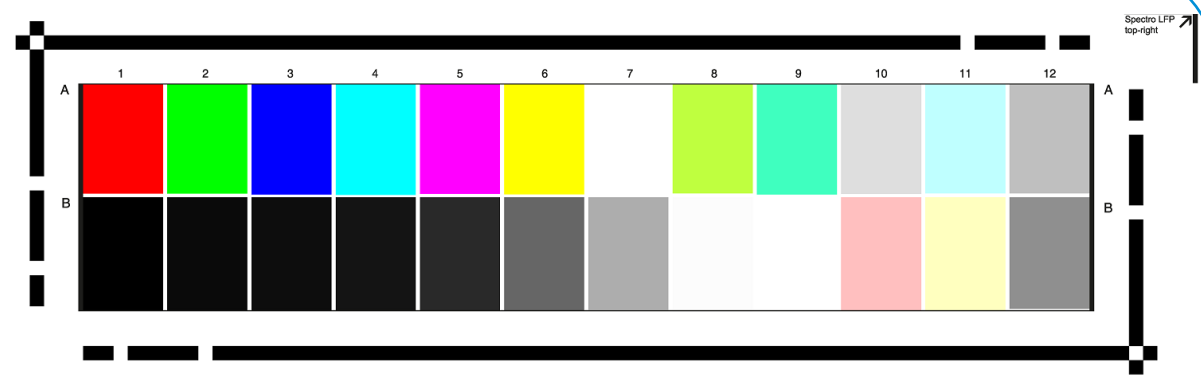
First and foremost we want to know if the print is either



- 1) How do we check if output meets expectation?
- 2) How do we check if colors are printed accurate?
- 3) How do we check if colors are printed consistent?



✓ DOC Control Strip CMYK v1.1
(Vector)

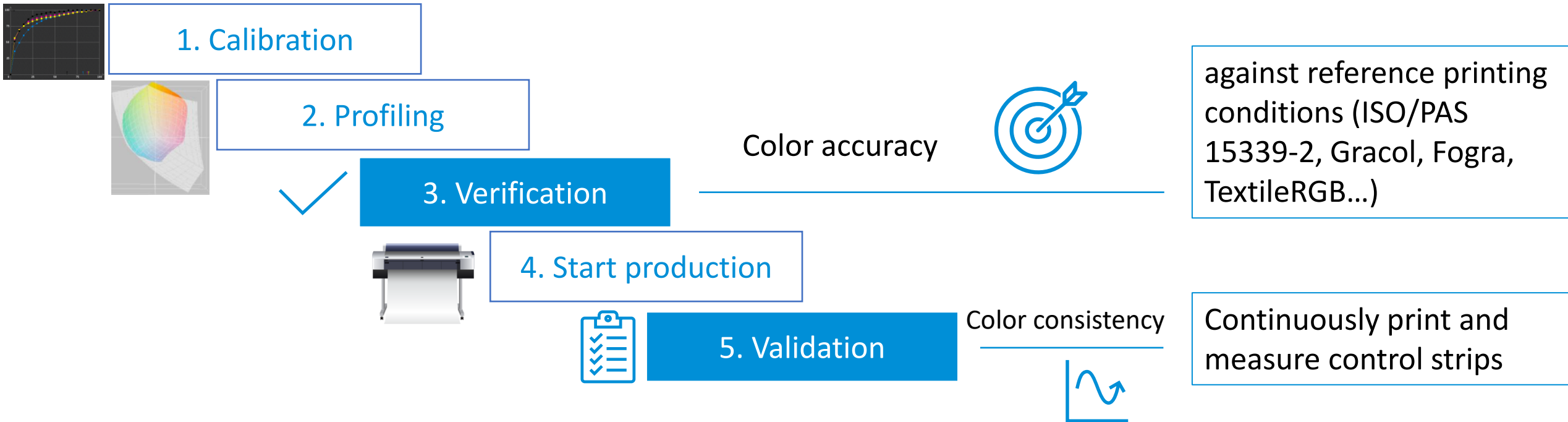


✓ DOC Control strip RGB v1.0
(Vector)

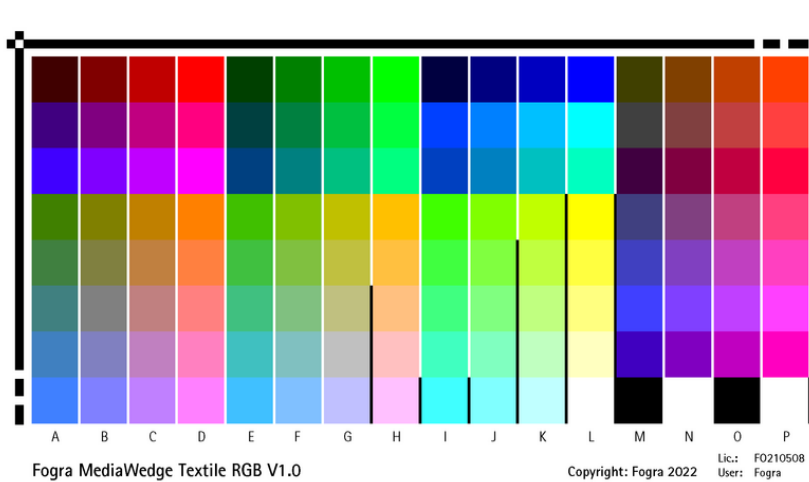
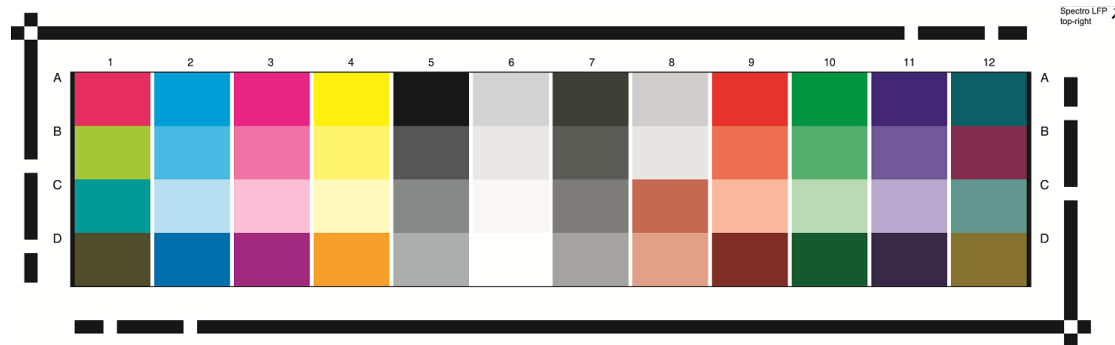


Printing and measuring control strips

Color Process Control: Steps to perform



A control strip is a set of patches including solid, secondary and grayscale



DOC Control Strip CMYK v1.1
(Vector)



Idealliance. 12647-7_2013-LAD
Size: 28.1 cm x 14.7 cm



Suitable for M0, M1, M2, M3 scanning with i1PRO3Plus, i1IO3, LFP, LFPqb

© Idealliance 2022

What's Inside a Control Strip?

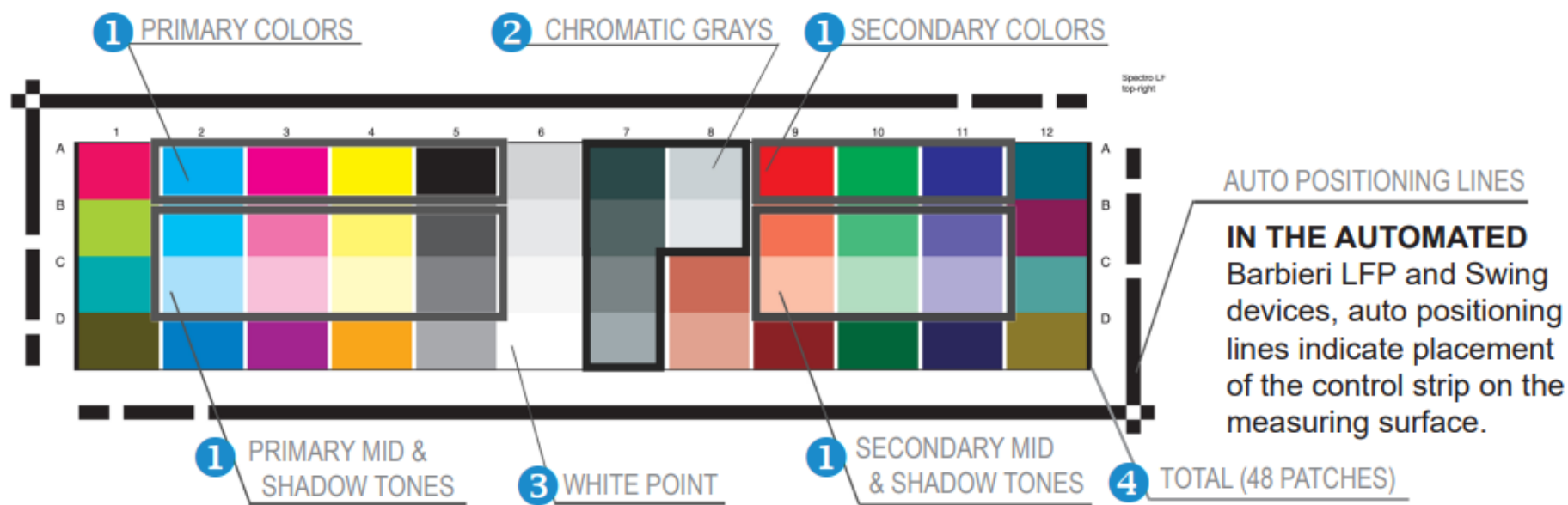


FIG. 2 Barbieri CMYK Control Strip

Evaluation



Intelligent Measuring Technology
when Color Quality counts



Measurement: DEMO_PRINTER1_MEDIA1-2022101014160011

Printer: Printer1

Media: Media1

Date/Time: 2022-10-10/14.16

Meas. Cond. / Backing: White Backing

Measurement device: Platform: Spectro LFP ver:6.94 RT S2 S3 Sqb Itx1| G

Gateway Version: 4.8.17

Reference: DEMO_PRINTER1_MEDIA1-2022101013380000-1.lab.txt

Evaluation: Media Absolute

Tolerance Set: T1_narrow.xml

Color Difference Formula: Delta E 2000

Control Strip: Barbieri DOC Control Strip CMYK v1_1a

 **passed**
print within tolerances

DOC Results

Average: Maximum:

Total: 0.99 ΔE_{00} (< 2.50) ✓ Total: 2.01 ΔE_{00} (< 6.50) ✓ Media: 0.42 ΔE_{00} (< 2.50) ✓

Grayscale: 1.04 ΔE_{00} (< 2.50) ✓ Prim/Sec: 0.97 ΔE_{00} (< 4.50) ✓

Color	Ref L	Ref a	Ref b	L	a	b	ΔE_{00}	Color	Ref L	Ref a	Ref b	L	a	b	ΔE_{00}
1A1	56.70	53.75	5.41	56.68	54.81	6.17	0.41	1C1	55.85	-38.40	1.60	57.05	-39.75	3.92	1.81
1A2	57.32	-32.00	-18.01	58.21	-32.85	-17.90	0.91	1C2	83.25	-9.35	-12.38	83.98	-8.54	-11.88	0.90
1A3	58.33	55.94	-2.98	58.31	57.15	-2.90	0.34	1C3	78.37	24.30	-7.84	79.22	22.81	-8.04	1.10
1A4	88.97	-6.37	73.84	88.88	-6.55	73.52	0.24	1C4	91.32	-5.09	25.82	91.02	-4.87	23.74	1.01
1A5	25.77	1.48	2.48	27.87	1.49	2.22	1.43	1C5	85.92	-2.52	-0.87	86.72	-2.00	-0.54	1.23
1A6	88.98	1.01	-3.54	88.67	1.15	-3.90	0.38	1C6	92.48	0.81	-4.39	92.21	0.83	-5.11	0.67
1A7	48.42	-21.08	-6.04	47.03	-22.21	-8.00	0.88	1C7	87.88	-12.88	-2.13	89.58	-12.30	-1.17	1.59
1A8	88.55	-2.42	-7.12	88.85	-1.76	-7.07	0.82	1C8	83.54	28.29	13.51	84.73	28.98	14.08	0.98
1A9	58.59	50.15	19.57	58.52	50.84	20.69	0.52	1C9	80.37	18.09	9.98	80.97	15.03	9.14	0.90
1A10	59.29	-40.78	17.52	59.74	-41.01	19.39	0.97	1C10	81.82	-18.01	13.52	82.42	-14.87	13.18	0.87
1A11	49.21	-4.28	-39.83	49.09	-3.75	-40.81	0.29	1C11	75.08	-5.08	-23.21	75.11	-4.08	-22.38	1.28
1A12	54.95	-35.79	-8.24	55.05	-36.98	-7.83	0.68	1C12	87.31	-31.84	4.42	88.82	-30.78	4.81	1.15
1B1	67.59	-39.29	36.68	68.88	-35.68	39.24	1.54	1D1	48.92	-7.25	13.98	50.34	-7.29	15.03	1.71
1B2	69.11	-24.36	-17.18	70.72	-23.28	-16.87	1.36	1D2	57.18	-19.11	-42.48	58.34	-19.91	-42.52	1.15
1B3	63.31	48.45	-8.78	64.18	47.54	-7.39	0.85	1D3	45.84	18.88	-23.88	48.24	20.49	-24.03	1.04
1B4	69.97	-7.47	58.58	69.71	-7.39	58.87	0.76	1D4	73.65	23.38	51.52	74.24	21.79	52.08	1.18
1B5	51.28	-3.76	-1.45	53.06	-3.09	-0.94	2.01	1D5	78.15	0.89	-1.59	77.54	0.84	-2.20	1.19
1B6	91.73	0.76	-4.24	91.43	0.92	-4.97	0.88	1D6	92.45	0.87	-4.53	92.28	0.69	-5.02	0.42
1B7	57.93	-18.02	-3.33	59.22	-15.47	-2.81	1.27	1D7	79.81	-7.54	-2.54	80.20	-6.55	-1.91	1.20
1B8	91.40	-0.36	-6.21	91.21	-0.22	-6.78	0.52	1D8	76.58	18.99	11.42	77.58	17.82	10.38	1.19
1B9	68.41	38.57	17.27	67.07	37.69	17.00	0.83	1D9	47.83	31.52	8.54	48.34	33.31	8.88	0.89
1B10	68.08	-38.77	21.98	67.35	-38.18	22.79	1.15	1D10	52.97	-29.98	13.02	54.11	-30.88	14.52	1.42
1B11	54.02	-4.31	-38.87	55.42	-4.41	-38.75	1.34	1D11	45.25	-2.48	-31.22	45.12	-1.73	-32.14	0.43
1B12	48.41	26.43	-19.34	46.53	26.18	-18.77	1.01	1D12	81.58	-8.12	33.53	82.34	-7.94	35.23	1.00

✓ within Tolerances ⚠ within Maximum, but > Average ✗ out of Tolerances

Date: _____ Operator: _____ Signature: _____

Evaluation



Measurement: DEMO_PRINTER1_MEDIA1-2022101014160011
Printer: Printer1
Media: Media1
Date/Time: 2022-10-10/14.16
Meas. Cond. / Backing: White Backing
Measurement device: Platform: Spectro LFP ver:6.94 RT S2 S3 Sqb itx1| G
Gateway Version: 4.6.17
Reference: DEMO_PRINTER1_MEDIA1-2022101013380000-1.lab.
Evaluation: Media Absolute
Tolerance Set: T1_narrow.xml
Color Difference Formula: Delta E 2000
Control Strip: Barbieri DOC Control Strip CMYK v1_1a

Intelligent Measuring Technology
when Color Quality counts



 **passed**
print within tolerances

DOC Results

Average:

Maximum:

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Prim/Sec: 0.97 ΔE_{00} (< 4.50) ✓

Gray uniformity

Color accuracy
ink accuracy

media

Time to call a Color Doctor.
A special guest. A lab coat. And a passion for color.

Mr. Sal Passanisi

Barbieri DOC Deep Dive

See DOC in action with our guest:

Mr. André Schwarz
(Schwarz Consulting)

Operation Mode



Chart Measurement



Digital Output Control



Spot Measurement



Image Quality

Tools & Settings



Tools



Settings

Chart Measurement



New Job

Job Settings

Local (Spectro LFP, Swing)

Measurements

Filter:

Job: all
Date: allEasy ☐ Advanced

Jobs List | Chart Templates



No instrument connected: Press 'Connect' to search for instrument !

IP: none

Firmware version: none

Properties: none

Connect

Cloud account status: Disconnected

Uploaded files :

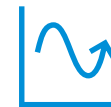
Program version: MAC Barbieri 4.7.19

SpecLib.dll version: 5.45

SpecLibDOC.dll version: 1.06

Color Process Control in digital printing

- ✓ Color varies on different Digital Printers
- ✓ Different materials cause challenges for measurement devices; a dedicated spectrophotometer ensures accurate spectral data
- ✓ Color Process Control tells you about how **accurate** and **consistent** the colors are printed



How to activate Barbieri DOC?

The Barbieri DOC – Digital Output Control is a tool inside the BARBIERI Gateway software, which works with every BARBIERI device.

An activation code can be purchased through your regular sales channel or visiting:

<https://barbierielectronics.com/digital-output-control-doc/>

It's a lifetime license with no subscription or additional fees after purchase.
The license is tied to the serial number of your BARBIERI device.



barbieri

BA
S
PHOTO

when color

Let me ask you one final one.

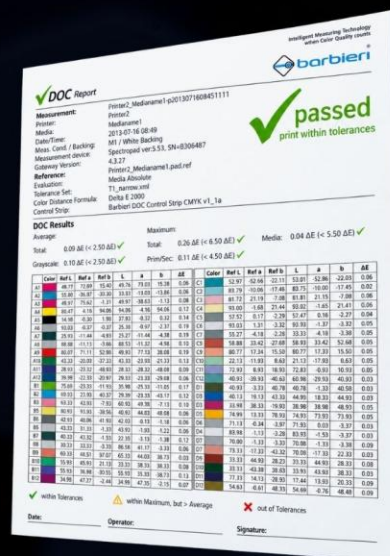
Digital Output Control Explained



**Please ask
your questions
in the chat**



Measure
Analyze
Evaluate



passed
within tolerances



not passed
out of tolerances