



INTERNATIONAL
PRINECT USER DAYS

8th and 9th October 2014

5th International Prinect User Days, October 8th and 9th, 2014

ISO-compliant measurements without
re-measuring all dry sheets

Bernd Utter, Stefan Schenk, Heidelberger Druckmaschinen AG

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Requirement

From their print shops big brand owners and ad agencies demand for a certificate granting the required color quality



Inhouse standards, ISO 12647-2, G7, individual agreements

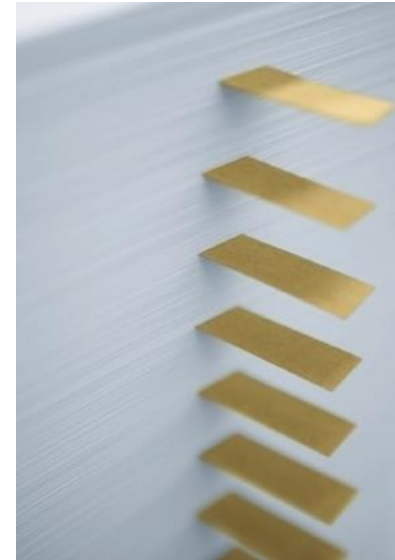
Especially the check for ISO 12647-2 must be performed on dry sheets.

Today's approach

- Marking the print production under the terms of the contract
E.g. every 300th sheet must be measured



- Extremely costly:
 - Working time for 20 sheets approx. 25 minutes
 - Later in the Postpress department
 - Delay on delivery



Using spectral data directly from the press

- OK-sheet adapted to:
 - Standard of the measurement system
 - Customer setup
 - Sample
 - Proof
- OK-sheet is the reference to control the print run
- ΔE , Density and TVI are recorded
- Only OK-sheet must be re-measured

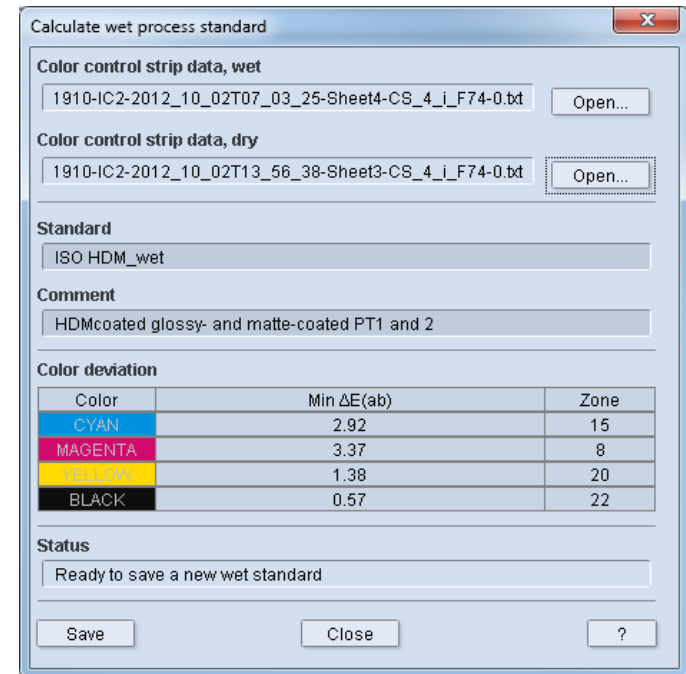


Wet and dry inks

- (ISO) Standards always give values for dry inks
E.g. Black = 16-0-0
- Press Operator handles wet sheets. The reference values are different to the dry values.
E.g. Black = 10-0-0
- The color measurement system at the press needs other references than the print buyer expects.
- Open question: How will the press man know the print is correct?

Creating a “Wet Standard”

- Printing a print control strip with different ink settings and save measurement data to the “Wet-Dry Assistant” in the Prinect Color Toolbox. Use Illuminant M2 or M3.
- Measure the dry sheets with illuminant M1
- The Wet-Dry Assistant identifies the best match
- Press operator sets the wet standard at the press’ color measurement system



Operating steps in Quality Monitor

Wet data

1

Dry data

2

Calculate

3

Save

4

Calculate wet process standard

Color control strip data, wet
1910-IC2-2012_10_02T07_03_25-Sheet4-CS_4_i_F74-0.bt

Color control strip data, dry
1910-IC2-2012_10_02T13_56_38-Sheet3-CS_4_i_F74-0.bt

Standard
ISO HDM_wet

Comment
HDMcoated glossy- and matte-coated PT1 and 2

Color deviation

Color	Min $\Delta E(ab)$	Zone
CYAN	2.92	15
MAGENTA	3.37	8
YELLOW	1.38	20
BLACK	0.57	22

Status
Ready to save a new wet standard

Save Close ?

New wet standard successfully added to MDS

generated wet process standard

quality of found
dry standard
dependent on
inkset and paper

inkzone for
defining optimal
wet-inkset

Let's have a look to the new Analyze Point first

OK sheet

Measurement Number: 4

black				cyan				magenta				yellow			
ΔE	D	Dg 40%	Dg 80%	ΔE	D	Dg 40%	Dg 80%	ΔE	D	Dg 40%	Dg 80%	ΔE	D	Dg 40%	Dg 80%
2.93	1.77	17.0	14.0	2.13	1.55	16.0	13.0	0.55	1.50	14.0	12.0	1.60	1.30	15.0	13.0

Process standard: ISO 12647-2 HDM_Default
Paper Grade:

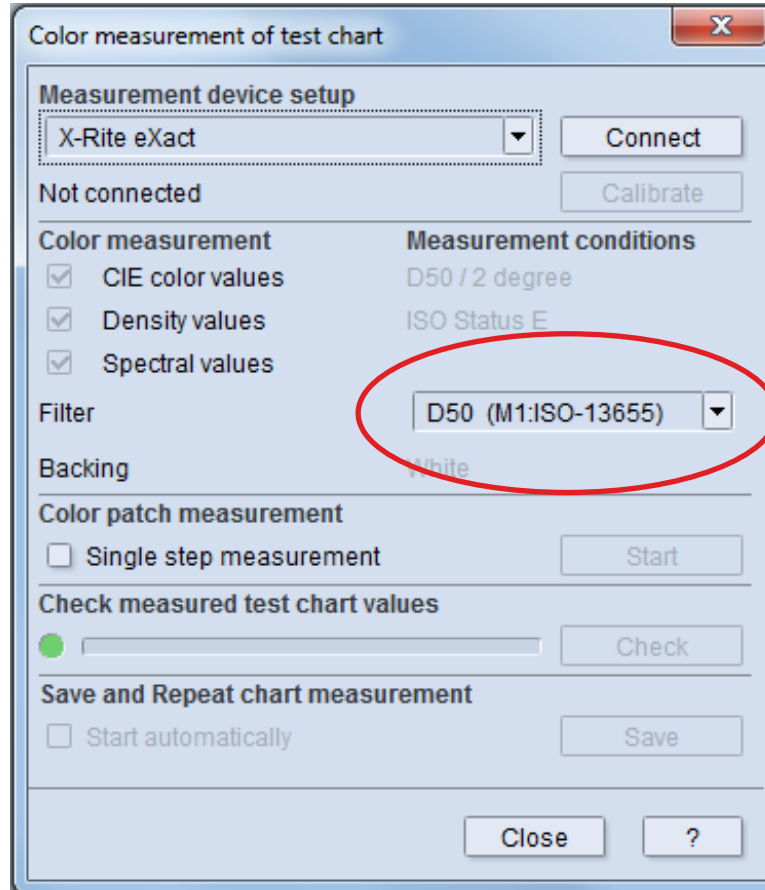
Production Check for OK Sheet

Quantity: 905
Process standard: ISO 12647-2 HDM_Default

Measurement Count: 5
Within tolerance: 100%

	black				cyan				magenta				yellow			
	ΔE	D	Dg 40%	Dg 80%	ΔE	D	Dg 40%	Dg 80%	ΔE	D	Dg 40%	Dg 80%	ΔE	D	Dg 40%	Dg 80%
Mid	1.20	1.78	16.4	13.2	0.59	1.56	15.2	13.0	1.31	1.52	13.6	11.4	0.47	1.30	14.8	12.8
Min	0.85	1.69	16.0	13.0	0.24	1.53	15.0	13.0	1.06	1.48	12.0	10.0	0.22	1.29	14.0	12.0
Max	1.86	1.83	17.0	14.0	1.11	1.60	16.0	13.0	1.55	1.58	14.0	12.0	0.73	1.31	15.0	13.0

Adding the dry measured OK-sheet




Prinect Color Toolbox Quality Monitor



New functions of the Prinect Color Toolbox

Dry Measurement Assistant

Job
Select a job for the dry measurement







1 Select job — **2** Select sheet — **3** Measurement

Job number	Job name	Start of Print	End of Print
Auftragsnummer	Auftragsname	Druckbeginn	Druckende
J14-0017	Coroni Flyer	20.03.2014 08:17	20.03.2014 09:45
J14-0023	Elstar Heft 2/14	20.03.2014 06:23	20.03.2014 08:45
J14-0023	Elstar Heft 2/14	20.03.2014 08:47	20.03.2014 12:22

New functions of the Prinect Color Toolbox


Dry Measurement Assistant _ o x

Job 
 Select a sheet for the dry measurement

 —
  —
 



Select job Select sheet Measurement

Job number: J14-0023 **Job name:** Elstar Heft 2/14

Sheets with end of print: 

Auftragsnummer	Auftragsname	Bogen	Druckbeginn	Druckende
J14-0017	Coroni Flyer	FB001 4/4	20.03.2014 08:17	20.03.2014 09:45
J14-0023	Elstar Heft 2/14	Umschlag 5/5	20.03.2014 06:23	20.03.2014 08:45
J14-0023	Elstar Heft 2/14	Innenteil_1 4/4	20.03.2014 08:47	20.03.2014 12:22

nur Bogen ohne Trockenmessung anzeigen

New functions of the Prinect Color Toolbox

The screenshot displays the 'Dry Measurement Assistant' software interface. The main window is titled 'Measurement' and contains the instruction 'Connect your measurement device and start measurement'. A progress bar at the top shows two steps: '2 Select sheet' and '3 Measurement', with the '3 Measurement' step currently active and highlighted in yellow. Below the progress bar, there are several configuration options: a 'Filter' dropdown set to 'kein (M0 : ISO13655)', a 'Widerdruck' (backprint) section with 'Farben: CMYK', 'Bedruckstoff: matt gestrichen', 'Meßstreifen: Prinect CS-4i F105', and 'Druckstandard: ISO 12647-2 : 2013'. A 'messen' (measure) button is located at the bottom right of the main window. A dialog box titled 'Color measurement of test chart' is overlaid on the left side of the main window. This dialog box has a close button (X) in the top right corner. It is divided into several sections: 'Measurement device setup' with a dropdown menu showing 'X-Rite eXact' and a 'Connect' button; 'Not connected' with a 'Calibrate' button; 'Color measurement' with checked options for 'CIE color values', 'Density values', and 'Spectral values'; 'Measurement conditions' with 'D50 / 2 degree' and 'ISO Status E'; a 'Filter' dropdown set to 'D50 (M1:ISO-13655)'; 'Backing' set to 'White'; 'Color patch measurement' with an unchecked 'Single step measurement' option and a 'Start' button; 'Check measured test chart values' with a green progress indicator and a 'Check' button; and 'Save and Repeat chart measurement' with an unchecked 'Start automatically' option and a 'Save' button. At the bottom of the dialog box are 'Close' and '?' buttons.

New functions of the Prinect Color Toolbox

Dry Measurement Assistant

Measurement
Connect your measurement device and start measurement

1 ——— 2 ——— 3
Select job Select sheet Measurement

▶ **Measuring device:** X-Rite eXact **Filter:** D50 = M1 ISO 13655 **Status:** connected

▼ **Job number:** J14-0023 **Sheet:** Cover_1 **Print standard:** ISO 12647-2:2013

Front side **Back side**

Colors: CMYK **Colors:** CMYK
Substrate: PS1 – gloss coated **Substrate:** PS1 – gloss coated
Print control strip: Prinect CS-4i **Print control strip:** Prinect CS-4i

Measure **Measure**

Abbrechen Zurück Speichern & Beenden Speichern & Neuer Bogen

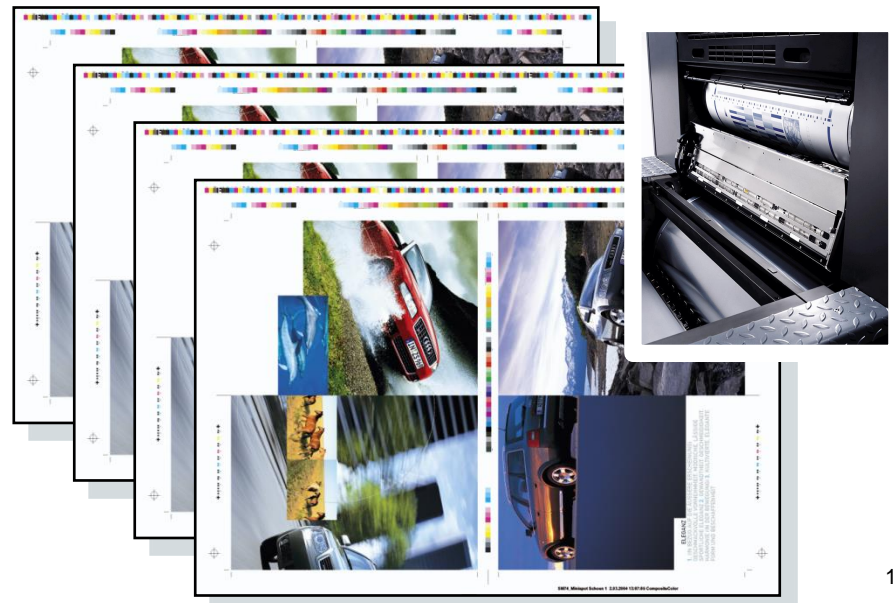
The Result



OK-sheet – dry measurement



Production – wet measurement





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Thank your for your attention!

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