

Trending and ProofPass Training Session

Presented by

*Color*Metrix Technologies, LLC

ProofPass workflow

- ◆ Calibrate device per mfg specs
- ◆ Produce and evaluate test form
- ◆ Apply appropriate color management
- ◆ Create or locate target specs and tolerances
- ◆ Create appropriate data sets
- ◆ Select/Design Pass/Fail label
- ◆ Begin Measurement/Control cycle

COLOR by CHROMATICITY CERTIFICATION

**CHROMATICITY
INCORPORATED**
www.chromaticity.com 616•361•7773

Saturation



Skin Tone



Gray Balance



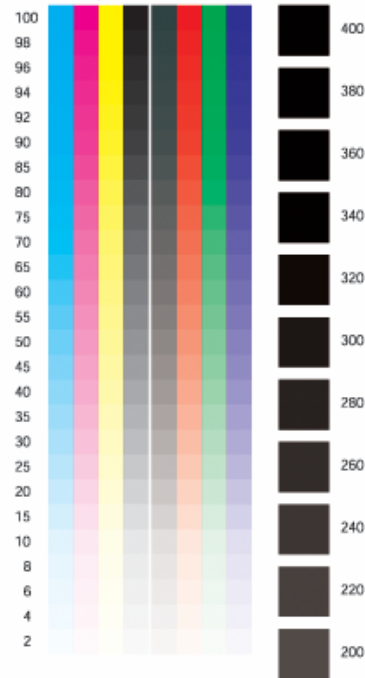
High Key / Low Key



DATE:

DEVICE:

Tonality



Grayscale



Target Specs and Tolerances

- ◆ SNAP - Newspaper
- ◆ GRACoL - Commercial
- ◆ <http://www.swop.org> – App Data Sheets
- ◆ FIRST - Flexo
- ◆ Customer defined
- ◆ User defined – process capability and/or proofs that match press.

GRACoL

SUGGESTED Input Variables							Output Print Characteristics							
Paper/ Substrate	LPI= Line Screen	TAC= Total Area Coverage	SID= Solid Ink Density				PC= Print Contrast				TVI= Total Dot Gain%			
			K	C	M	Y	K	C	M	Y	K	C	M	Y
Grades 1 and 2 premium gloss/dull coated	175	320%	1.70	1.40	1.50	1.05	40-45	35-40	35-40	30-35	22	20	20	18
Grades 1 and 2 premium matte coated	150-175	300-320%	1.60	1.30	1.40	1.00	40-45	35-40	35-40	30-35	24	22	22	20
Premium text and cover (smooth)	150	260%	1.30	1.15	1.15	0.90	35-45	30-40	30-40	25-35	26	22	22	20
Grade #3 coated	150	310%	1.65	1.35	1.45	1.02	45	40	40	35	22	21	22	18
Grade #5 coated (SWOP™)	133	300%	1.60	1.30	1.40	1.00	40	35	35	30	24	22	22	20
Supercal SCA	133	240-260%	1.50	1.25	1.35	0.98	23	21	21	20	28	26	26	24
Supercal SCB/SCC	120	240-260%	1.35	1.10	1.15	0.95	20	19	19	18	28	26	26	24
Uncoated offset	110	240-260%	1.25	1.00	1.12	0.95	20	17	16	17	28	26	26	24
Newsprint (SNAP offset)	85	240%	1.05	0.90	0.90	0.85	16	13	12	15	30	30	30	30
Newsprint (heatset)	100	240%	1.20	1.08	1.15	0.95	16	13	12	15	35	32	32	30

SWOP – Application Data Sheet

VII FINISHED PROOF CHARACTERISTICS

When properly processed and/or produced, the following are characteristics to be expected from AgfaJet Sherpa™ Digital Proofs. All of the below readings were made with a properly calibrated X-Rite® 938 Spectrophotometer.

Substrate/Background Densities (paper color simulated): (R,G,B filter densities). 0.11, 0.13, 0.16 ± 0.03

PROCESS COLOR	DENSITY (absolute)	TVI at 50 (Dot Gain)	PRINT CONTRAST (at 75% Tone Value)	COLOR(per CGATS.5)		
				L*	C*	h(ab)*
YELLOW	1.02 ± 0.03	11 ± 2	33 ± 2	84.3 ± 2	87.3 ± 2	91.9 ± 2
MAGENTA	1.47 ± 0.03	21 ± 2	32 ± 2	47.4 ± 2	69.1 ± 2	357.3 ± 2
CYAN	1.49 ± 0.03	21 ± 2	38 ± 2	54.4 ± 2	59.7 ± 2	227.2 ± 2
BLACK	1.68 ± 0.03	20 ± 2	34 ± 2	15.8 ± 2	N/A	N/A

Density refers to major filter value. Tone value increase is computed with the Murray-Davies equation and Print Contrast is absolute. All conform to CGATS.4.

Customer Defined

- ◆ Consumer products companies driving...
- ◆ Target and tolerance levels provided
- ◆ Non-conformance = non-payment
- ◆ Quality has become a barrier to entry

User Defined

- ◆ Fingerprint press
- ◆ Color manage proofing system to press
- ◆ Make 21-30 test proofs
- ◆ Measure proofs with ColorMetrix
- ◆ Evaluate with Trending 6-Sigma charts
- ◆ Evaluate with Trending Histograms
- ◆ Establish baseline and tolerance levels

Create Data Sets

- ◆ Specific device – i.e. XP #1, XP #2
- ◆ Generic device – Epson 7600, Sherpa
- ◆ Customer specific
- ◆ Job specific
- ◆ Time period specific
- ◆ Etc...

Pass/Fail Label

Proof Conformance Report

Technology by:
ColorMetrix

Status: (Pass)

Data Set: CM-ProofPass-Demo Type A
Description: Baseline Set-up
Date: 7/16/2002
Sample: 1
Instrument: X-Rite Spectrofiler

	<u>Solid Density</u>		<u>Tone Value Increase</u>		<u>CIE L*a*b*</u>
	Reference	Sample	Reference	Sample	Delta E
Black	1.75	1.75	21.49	21.67	0.30
+/- Tol.		0.05		2.00	2.00
Cyan	1.07	1.07	33.33	33.39	0.12
+/- Tol.		0.05		2.00	2.00
Magenta	2.03	2.01	16.67	16.46	0.26
+/- Tol.		0.05		2.00	2.00
Yellow	1.18	1.18	10.33	10.80	0.10
+/- Tol.		0.05		2.00	2.00
Red					0.11
+/- Tol.					2.00
Green					0.18
+/- Tol.					2.00
Blue					0.20
+/- Tol.					2.00
3/color					0.12
+/- Tol.					2.50

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Pass/Fail Label

Sotheby's Proof Conformance Report

Technology by:
ColorMetrix

Status: **(Pass)**

Set Name: CM-ProofPass-Demo Type A
Sample Desc: Baseline Set-up
Date: 7/16/2002
Sample: 1
Instrument: X-Rite Spectrofiler

CIE LCh Delta CMC(2:1)

Color	Solid(100%)	Mid-tone(50%)
Black	0.27	0.17
Cyan	0.07	0.11
Magenta	0.09	0.41
Yellow	0.03	0.06
Red	0.02	
Green	0.07	
Blue	0.12	
3/color 75%	0.11	
3/color 50%	0.00	
3/color 25%	0.00	



Technology by: **ColorMetrix**

8/14/2003 2:27:03PM

Job #/Name: Baseline Set-up
Proof Type: CM-ProofPass-Demo Type A

Status: **(Pass)**

	Delta E (Solid)		Delta E (Solid)	Paper Density
Red	0.1	Cyan	0.1	0.06
Green	0.2	Mag	0.3	0.06
Blue	0.2	Yel	0.1	0.02
Grey	0.1	BLK	0.3	0.06

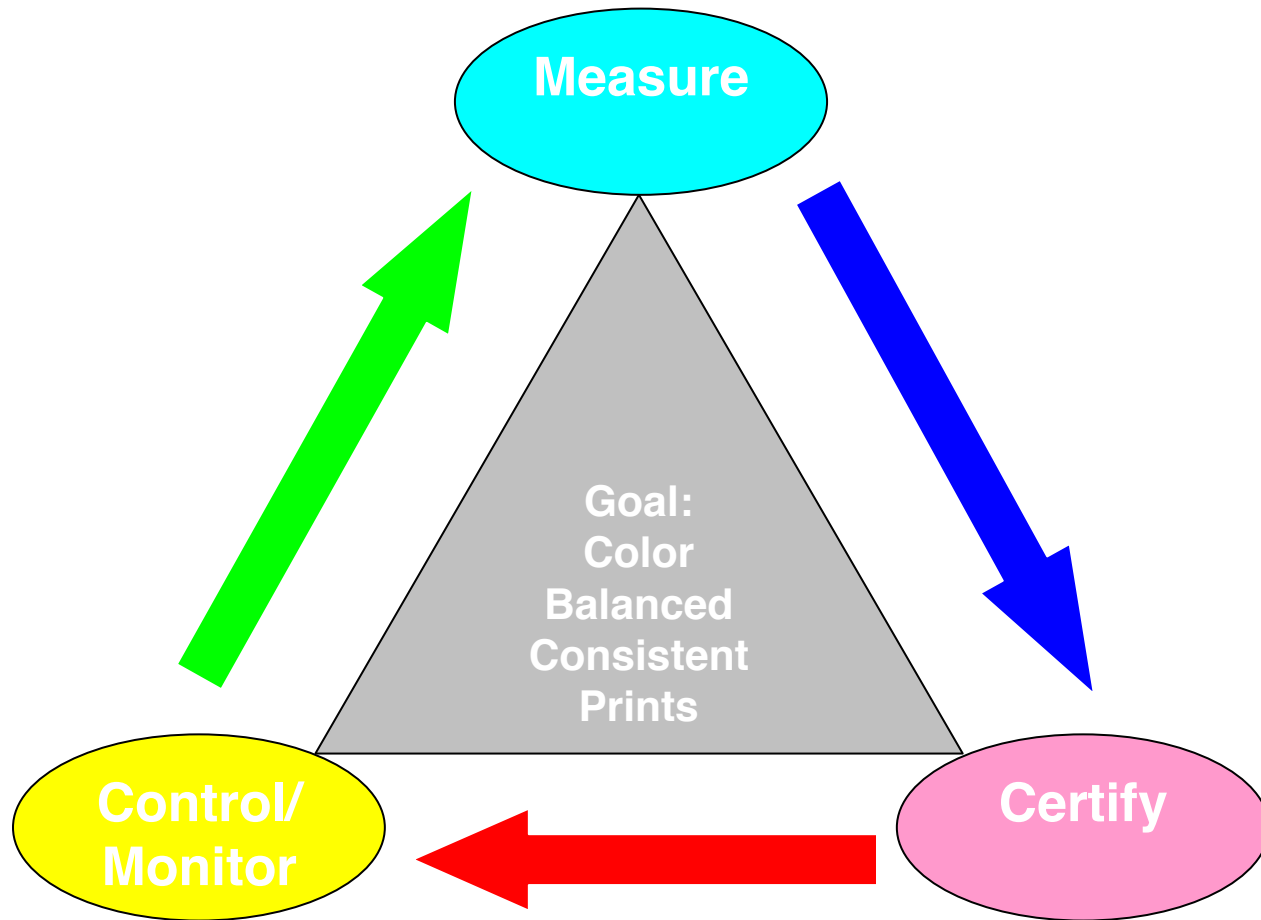
Proof OK

Assembly OK

Color OK

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Process Control Cycle



Measurement/Control Cycle

- ◆ Select appropriate data set
- ◆ “Add New” sample
- ◆ Enter sample desc as needed
- ◆ Measure and evaluate pass/fail
- ◆ Periodically evaluate trending data
- ◆ Adjust target and tolerances as needed

Trending – Features

- ◆ Support for 5000 samples
- ◆ L*a*b*
- ◆ Trap
- ◆ Special Colors
- ◆ X-Bar (6 Sigma) charts
- ◆ Histograms
- ◆ Improved printing capabilities

Special Color/X-bar (6 Sigma) Charting Capabilities



ProofPass - Product Bundle

- ◆ Measure / Certify / Control (Monitor)
- ◆ Bundles & improves existing:
 - Products
 - Knowledge
- ◆ Complete turnkey solution

ProofPass – Bundle Components

- ◆ ColorMetrix version 1.8.2
- ◆ Trending version 1.1.2
- ◆ Control strips in digital format
- ◆ Certificate sticker label printer
- ◆ Strip reading instrument (i.e. DTP41 / i1)
- ◆ One day on-site professional services

Trending and ProofPass Live Demo

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