Color Management Strategies for Packaging

Jan De Roeck – Esko
April 17th 2013
Color Management Strategies for Packaging

Agenda

1. Color is Emotion
2. Color Communication
3. Color Reproduction
4. A Customer Case
5. Key Take Aways
6. About Esko

Color is Emotion
Brand Colors
Major Assets for Brand Owners

• Color is a #1 brand asset
  – Consumers associate colors with products
  – Consumers use color as a “search key”
  – Color creates emotional bonds with a brand
Brand Colors
Reproduction Challenges

- Brand color **consistency**
- Across different packaging components
- Across different substrates
- Across versions and variants
- Independent of print process
- The same across the globe

Color Communication
Managing Expectations

Pantone Matching System

To be used for color guidance only
Color Reproduction Today

Brand

Design

Prepress

Digital

Flexo

Litho

Gravure

Inconsistent Results

PantoneLIVE Concept

- **Master Standard**
  - The brand color DNA
- A PANTONE+ reference or unique brand color defined *spectrally* on a reference substrate
PantoneLIVE Concept

- **Dependent Standard**: A color that closely represents a Master Standard
- Has a defined, accepted and controlled color shift based on the reality of substrate & print process

Master Color Standard

- Production variation using a Master Color Standard
  - Substrate/print process make it difficult to achieve color

\[ \begin{align*}
L^* & \quad + \\
C^* & \quad + \\
& \quad + \\
& \quad + \\
\text{Production Variation of } & >4 \\
& \text{DE}
\end{align*} \]
Dependent Color Standard

- Reduced variation based on Dependent Color Standard
  - Color reference is now realistic & achievable

Color Results

L*

C*

Production Variation of <1 DE

Master Color Standard

Dependent Color Standard

The Brand Owner defines the master and dependent colors for everyone in the global supply chain.

Color in the Cloud

The Brand Owner defines the master and dependent colors for everyone in the global supply chain.
Color Management Strategies for Packaging

The PantoneLIVE ecosystem

Brand Color Services
- Master Color Standard
- Dependent Color Standard
- PantoneLIVE Brand Owner Portal

Production Services
- Color Measurement
- Color Specification
- Ink Formulation

Prepress Solutions
- Other Prepress Solutions
- Editing Solutions
- Collaboration Solutions
- Proofing Solutions

Color Reproduction
Towards a color controlled environment

Esko Color Engine
a central color database

3D Virtual prototyping
Artwork Editing
Proofing
Imaging
Expanded Gamut
Automation and Collaboration
Esko color management
unique value drivers

Spectral data
“DNA of color”

Excellent
spot color
management

Multicolor
Accuracy

Integrated
with the cloud

A Customer Case

Chesapeake
Pharmaceutical and Healthcare
Chesapeake Pharmaceutical and Healthcare Product Range

Chesapeake Working Together

- Recognised the benefits of working with PantoneLIVE to achieve colour consistency
- PantoneLIVE was able to offer cutting edge technology linked with extensive colour knowledge
- Chesapeake’s 42 production sites use more than 150 different substrates
  - Litho, gravure, flexo and digital print formats
  - Global presence in the packaging market meant the requirement for an all encompassing solution
  - A web-based solution was imperative to overcome communication, time zones and subjective colour decisions
Chesapeake
The Initial Challenges

- Meeting brand owner expectations
  - Colour consistency throughout brands variants
  - Cost effective packaging
- Off line digital representation
- Improving carton manufacturing processes
  - Batch to Batch repeatability
  - Consecutive errors
- Time to market
- Managing the colour supply chain

Chesapeake
The Story - WHAT WE’VE ACHIEVED SO FAR

- 3000 inks were historically used to produce the colour palette
- Rationalised through spectral measurements to circa 540 inks
- The palette was digitalised whilst retaining customer choice
- Digital Handy books
- All inks are spectrally approved before use at Chesapeake
- Light sources have been installed and controlled to offer consistency
- All production orders are proofed off line by the Chesapeake PantoneLIVE Team
Digital proofs are manufactured through Esko artwork software for customer approval at the beginning of the supply chain.

Digital proofs have been validated against press output.

Digital colour tolerances are supplied to the customers.

Full measurable colour approval is obtained before any production order goes to press.

On press control is delivered through latest generation closed loop colour management systems.

Visual systems guide the machine operatives.

All colour decisions are made objectively using measurable data.

Extensive colour training and press experience has been delivered by Chesapeake.

The supply chain is completed by retained samples being verified by the PantoneLIVE Team.
Customer expectations are obtained from the outset
The ability to produce a digital representation of the customer file before the order is printed
Removes the requirement for wet proofing
Reduced product launch time
Batch to batch consistency
*Reduction in colour variation of circa 75%*

Colour production can be measured and verified against customer specs removing opinions
Press minders are given a visual guide of the customers spec real time in production
Reduced ink inventory from 3000 different types…to 537
Reduction in print make-ready waste of 18%
5% improvement in material yield
Key Take Aways

A color strategy is vital

Getting color right the first time and every time brings substantial savings across the entire print and packaging value chain.
Color management across the entire supply chain

Everyone in a packaging or publishing supply chain has a stake in the getting colors right

Proper color management doesn't just happen at one point near the end

About Esko
Did you know

Packaging for 9 out of 10 major brands is produced by Esko customers.

Business model

SOFTWARE

HARDWARE

APPLICATION SUPPORT

strong integration

EQUIPMENT SERVICE

SERVICES
Our solutions

Pre-production software for packaging, labels, sign and display. Brand management

Digital flexo platemaking equipment and plate room automation

Digital cutting tables for sample making and short run production

Enfocus

- Software solutions to the broad printing and publishing market supporting end-to-end automation.
- Improve communication between content creators and producers.
- Enfocus Brands: Instant PDF, PitStop, Switch

- Enfocus PitStop
  - Standard for preflight, edit and fix PDF files.
  - Enfocus Certified PDF technology: control over PDFs right up to the minute it gets printed.

- Enfocus Switch
  - Automating system
  - Integrates with existing systems and drives third party applications to speed up job processing, reduce errors, and automate repetitive tasks.
Global presence

- **Headquarters** in Gent, Belgium
- +1200 associates from 45 nationalities
- +10,000 customers in 132 countries
- 62% customer-facing staff
- Global sales network of 297 direct sales and +120 resellers
- 4 regional headquarters for a global coverage
  - EMEA (Gent B), AMERICAS (Miamisburg OH-US), ASPJ (Singapore), GCH (Shanghai)
- 6 software R&D centers
  - Bangalore, Bristol (UK), Gent, Ludlow (MA-US), Prague (Czech Rep), Shanghai
- 3 hardware factories (incl. R&D)
  - Brno (Czech Rep), Itzehoe (D), Kongsberg (N)

Esko at Graphispag

Booth E553
Color Management Strategies for Packaging

Image & Print World
Business Solutions Congress

sonimagfoto
&multimedia

graphispag
digital

Fira Barcelona