

Gravure Packaging Color Standards Committee Overview

Bob Chung, R • I • T



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GAA Pressroom Conference – April 22-24, 2008
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Topics

- Introduction
- GPCS Mission Statement
- GPCS Approach
- Current activities – Spot Color from Specification to Printing
- Future GPCS activities



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Gravure Initiative at RIT

- Test Targets
- Research & Publishing
- Industry Collaboration

- Gravure Process
- HHF Gravure Research Library
- Gravure Scholarships

- Gravure Day - Gravure Industry Field Trip



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GPCS Background

- “Survey of Printing Standards in the Gravure Package Printing Industry”
 - Conducted in March, 2007
 - Sponsored by GAA, PLGA, and RIT
 - Published results in GRAVURE, June 2007
 - Major survey findings
 - Standards are important and necessary in doing business.
 - “If we build color printing standards, the rest will come.”



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GPCS Mission Statement

- Promote the use of graphic arts standards to specify and communicate color
 - Viewing conditions; Color measurement; Process control
- Develop methods for spot color and process color specifications, communication, and production in the packaging printing industry



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GPCS Approach

- Bring together print buyers, suppliers, packaging printers and converters.
- Collect relevant literature.
- Conduct case study.
- Develop unambiguous color specifications to help achieve repeatable and predictable color in packaging printing.



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GPCS Membership

- Open to those
 - Interested in the GPCS committee goals
 - Willing to contribute time and talent

- Current members

Bruce Beyer (GAA)
Ken Bower (Hallmark)
Bob Chung (RIT)
Jean Jackson (Allison)
Dave McDowell (Standards consultant)
John Meyer (WMU)

Frank Passarelli (Bobst)
Iain Pike (Sun Chemical)
Mike Pollio (Philip Morris)
John Sarnataro (Colgate-Palmolive)
Steve Smiley (Vertis)
Bruce Snyder (Armstrong)
Gary Vogt (Kraft Foods)
Chiawei Wu (PCA)



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GPCS Communication

- Phone conferences
- Small group interactions
- Interaction with other standards bodies and associations
 - CGATS (SC2 Metrology; SC3 Process Control)
 - PLGA (Global Specifications Tolerances)



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Current Activities

- “Spot Color from Specification to Printing”
 - Identify issues
 - Review literatures
 - Explore possible solutions
 - Including commercially available tools and s/w
 - Conduct case studies
 - SmartColour



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Spot Color Issues

- Brand colors
 - Specially formulated inks for packaging products
 - Build brand recognition and customer loyalty
- Brand owner’s needs and wants
 - “What does it take to get packaging graphics printed as specified?”

Mike Ferrari, P&G (GAA Pressroom Conf., 2008)

- “Printed materials as per target artwork right the first time.”
- “Repeatability—print run to print run.”



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Spot Color Issues

- Printer/Converter's needs and wants
 - “How can I transform the color from a design file to a set of engraved cylinders, and achieve color match upon printing without trial and error?”

Chiawei Wu, PCA (private communication, 2008)

- “What if the engraving curve used in printing is different from that used in the supplied color standards?”
- “What if the substrate and inks used in printing are different from the supplied color standards?”



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Spot Color Issues

- Packaging development workflow
 - CGATS TR011 (2002)

Design → Prepress → Printing

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|--|--|---|
| <ul style="list-style-type: none">– Project definition– Design develop– Design finalization
(Color specified)– Submit to prepress | <ul style="list-style-type: none">– Printing & engraving specs
(Color-to-colorant converted)– Image conversion– Color contract proof approval– Cylinder engraving | <ul style="list-style-type: none">– Review job specs– Assemble inks
(Ink drawn-down)– Assemble substrate– Mount cylinders– Press make-ready– Color sign-off– Production |
|--|--|---|



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SmartColour

- Organize colors.
- Offer color standards.
 - Spot colors defined by spectral reflectance
 - Include full tone and tints
 - Incorporate engraving, substrate, and printing parameters
 - Link to ink formulations
- Enable soft proofing via *iVue*.



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'SmartColour' Case Study

- Collaboration among PCA, SmartColour, and RIT
 - PCA to invite a brand owner to participate.
 - Collect color/ink standards, engraving parameters, digital artwork, and printed samples by gravure and other printing processes.
 - Document current packaging development workflow with respect to color specifications, ink QC, and printing.



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'SmartColour' Case Study

- Implement SmartColour as an alternative workflow.
 - Identify the color of interest
 - Generate color standards on appropriate substrates.
 - Create a custom color library.
 - Explore *iVue* capabilities
 - Compare press-ready ink draw-down with color standards
 - Compare color printed with color specified



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'SmartColour' Case Study

- Evaluating SmartColour solution in meeting converter's needs



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Future GPCS Activities

- Process (CMYK) color specification and tolerance for packaging printing
 - Standardize packaging color gamut that's larger than SWOP
 - Substrate-dependent
- Spot color and process color interactions
 - Including prediction of spot color interactions



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Thanks for Your Attention.

For further information on GPCS,
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