#COLOR19

Standards Answers Panel

Don Schroeder
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Fujifilm Graphic Systems Division
ISO TC130 USTAG, PPC, TAGA

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Advancing Graphic Communications
PRINTING INDUSTRIES OF AMERICA

SGIA

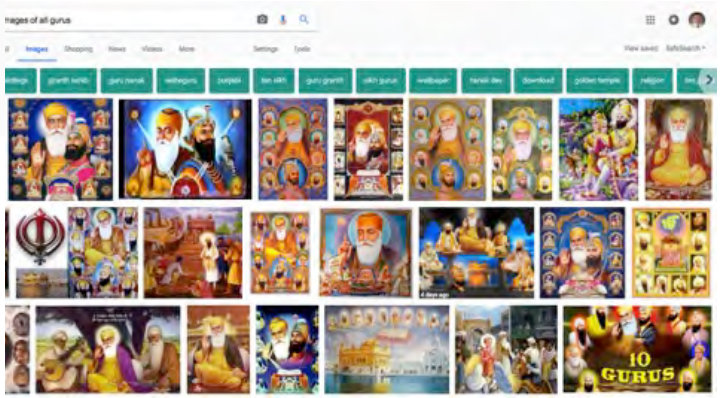
A great deal of work goes into the development of standards that are applicable to the graphic arts industry. But once these standards are accepted, not everyone agrees on which are most important, how they are best implemented—or whether they even need to be implemented.

In this lively panel discussion, Don Schroeder will host a lively panel of distinguished standards gurus where they will discuss today's trends, technologies, and standards development, and how it will affect color management in the future.

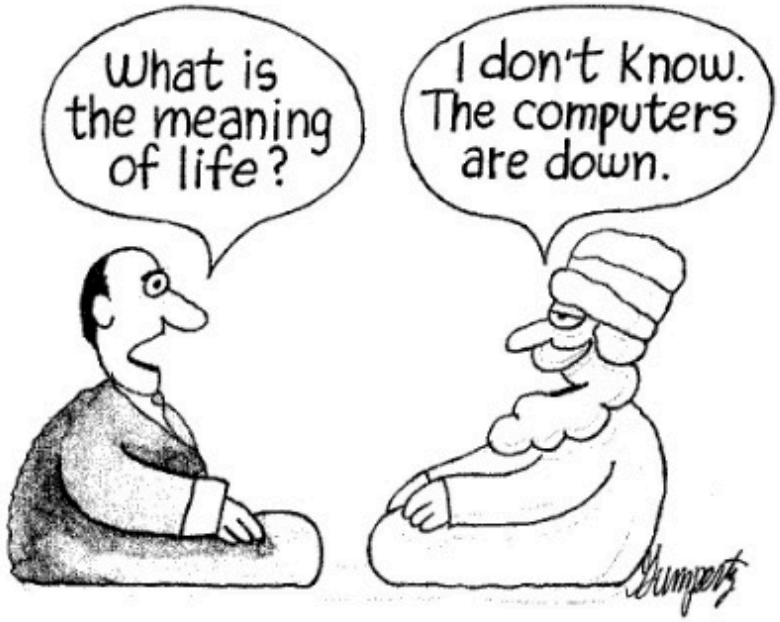
Your Moderator

- 27 years with Fujifilm Graphic Systems USA (1991 – 2018)
- Film Specialist…
- Color Proofing Technical Advisor (Color-Art)
- Sales Representative (Michigan / Indiana)
- Product Manager (FinalProof) still running! EOL Media this year
- Director of Solutions Development (ColorPath Sync)
- Director of Packaging Solutions Development
- Industry Organization: PIA Color, IDEAlliance PPC, TAGA Board Member
- ISO/TC 130 Standards Member, IIC IOT member (3 years).

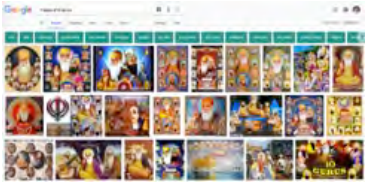
Last year we researched the word GURU!



GURU!


What is the meaning of life?
I don't know. The computers are down.

Time to Meet our Panel of Guru's!



- Raymond Cheydleur, Printing and Imaging Professional, Print, Packaging and Imaging Product Portfolio Manager X-Rite Incorporated, (Chairman USTAG ISO TC 130 USA Delegation), rcheydleur@xrite.com
- William Li, Color Products Manager, Kodak, william.li@kodak.com
- Steve Smiley, SmileyColor & Associates LLC, http://www.smileycolor.com/
- Dov Isaacs, Principal Scientist, Adobe Systems Incorporated, isaacs@adobe.com

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U.S. Technical Advisory Group to ISO Technical Committee 130 (USTAG) Roster 2018

SCOPE

The USTAG to ISO TC 130 identifies Technical Experts to represent the United States at ISO TC 130 meetings. In addition, the TAG is responsible for distributing ISO documents to members of the U.S. printing and publishing industry for review for the purpose of developing the U.S. consensus position on the work, and advising the American National Standards Institute (ANSI) on the appropriate action.

Chairman: Mr. Raymond Cheydleur

Secretary: Ms. Debbie Orf

Web Site: http://www.npes.org/programs/standardsworkroom.aspx

PARTICIPATION

Participation in the USTAG is open to anyone who may be materially affected by the standards developed by the USTAG or who may otherwise have an interest. All meetings are open, and minutes and draft documents are readily available upon request.

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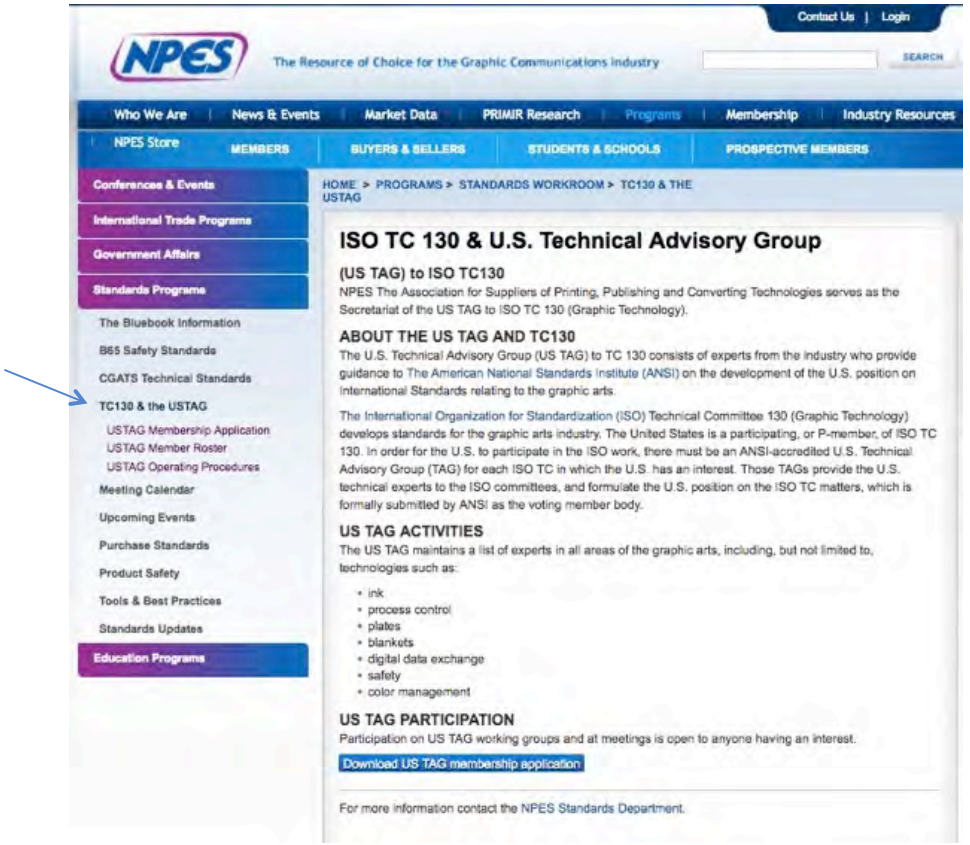
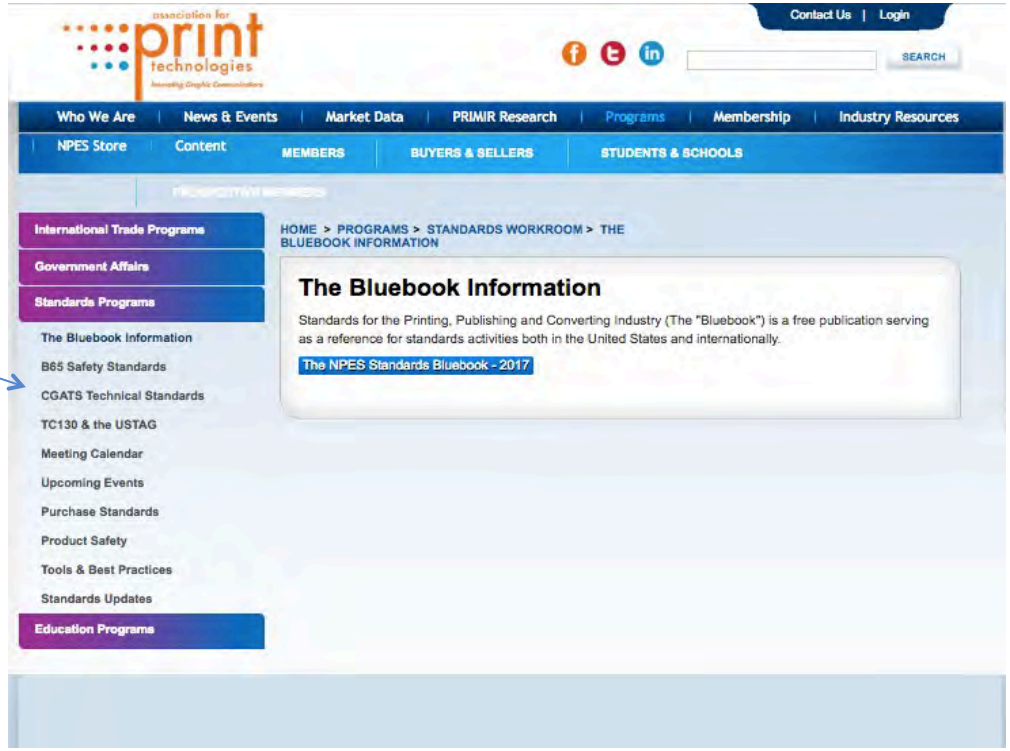
Where can I find out about Standards Online?

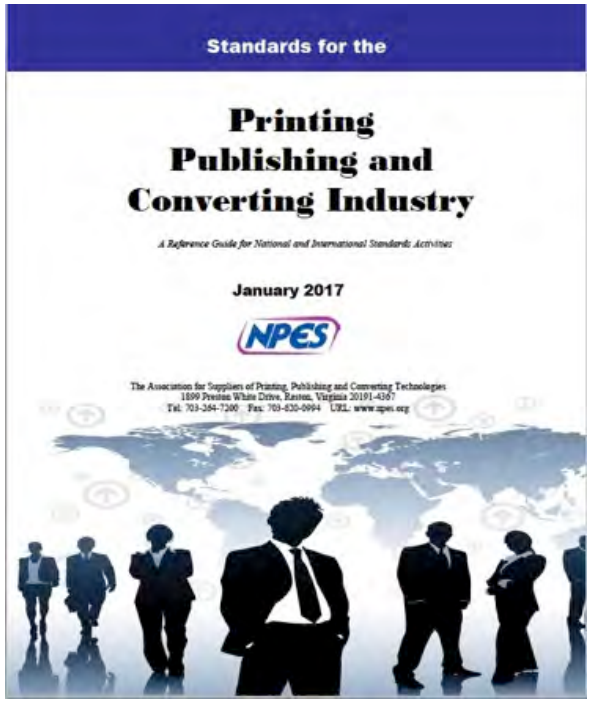
http://www.npes.org/programs/standardsworkroom/tc130theustag.



Web Site

http://www.npes.org/programs/standardsworkroom/thebluebookinformation.aspx





Web Site

http://www.npes.org/programs/standardsworkroom/thebluebookinformation.aspx

PREFACE

The purpose of this handbook is to provide you with a reference to standards activities in the printing, publishing, and converting industry, both in the United States and internationally.

As with all ongoing activities, the status of the activities described is ever-changing. Please feel free to contact the NPES Standards Department if you would like information relating to the current status of a project.

Pages in this booklet may be photocopied and distributed without prior permission.

Bulk quantities of this publication are available in electronic format – FREE OF CHARGE – from the NPES Publications Department by contacting Debbie Orf (dorf@npes.org) or Sharon Cassette (scassete@npes.org).

Please visit the Standards Workroom at http://www.npes.org/programs/standardsworkroom.aspx for current drafts of many of the standards under development, minutes of standards committee meetings, links to order forms for industry standards, meeting information and important industry updates.

Questions regarding standards activities can be directed to Debbie Orf, Senior Director of ICC and Standards NPES, via Tel: 703-264-7200; Fax: 703-620-0994; or E-mail: dorf@npes.org.

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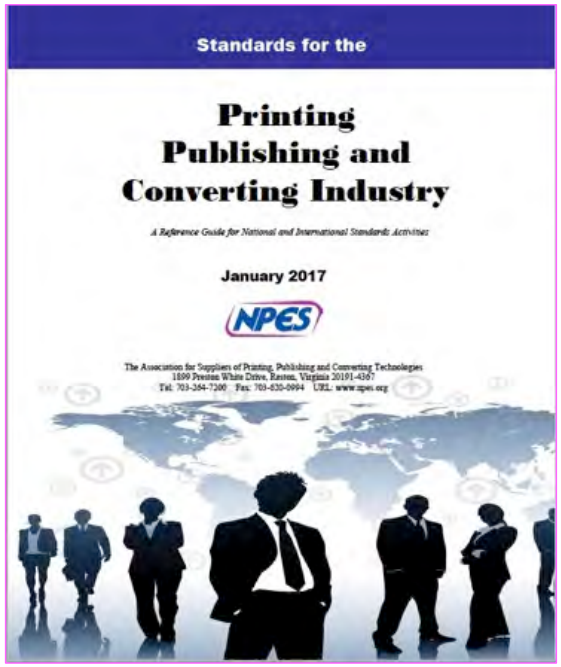
Things to know inside the BlueBook!

http://www.npes.org/programs/standardsworkroom/thebluebookinformation.aspx



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Standards and Why they are Important

- Today, companies are facing fundamental changes in the way they must do business.
- As we move toward a global economy, standardization issues continue to grow more complex.
- As more international trade agreements are implemented, domestic manufacturers will face growing competition from international concerns.
- **Standards are documented consensus agreements**
- In many cases, they provide uniformity which allows worldwide acceptance and application of a product or material.
- Standards help to remove technical barriers to trade, leading to new markets and economic growth for the industry.
- **Today, standards are recognized as being essential to helping companies be innovative, reduce costs, improve quality and maintain competitiveness in an international marketplace.**

Chapter 1:

STANDARDS: WHAT ARE THEY AND WHY ARE THEY IMPORTANT?

Standards are documented consensus agreements containing safety or technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics for materials, products, processes and services. In many cases, they provide uniformity which allows worldwide acceptance and application of a product or material. The aim is to facilitate trade, exchange and technology transfer. Standards help to remove technical barriers to trade, leading to new markets and economic growth for the industry.

Standards committees provide a forum where peers and competitors can come together for mutual benefit. Through ANSI, ISO and IEC activities, you and your company can play a leading role in the development of national and international standards that affect our industry, enhancing your technical strength and market position.

Today, companies are facing fundamental changes in the way they must do business. Strategies and business practices are continuously being evaluated to determine how to maintain and increase market share, reduce costs, increase productivity and safety, and achieve and maintain a competitive edge.

Standards have been in existence for many years. At one time, they were thought of as being the lowest common denominator, restrictive, and of little importance. That has changed. Today, standards are recognized as being essential to helping companies be innovative, reduce costs, improve quality and maintain competitiveness in an international marketplace.

As we move toward a global economy, standardization issues continue to grow more complex. They are critical to the survival and prosperity of companies marketing internationally. As more international trade agreements are implemented, domestic manufacturers will face growing competition from international concerns. Standardization provides a way to help shrink barriers to trade.

Standards for the printing, publishing, and converting industry will enable processes to run faster, more predictably, more efficiently, and be more cost effective by:

- providing uniform, defined procedures and tools which help users produce quality products for their customers;
- facilitating interconnectivity and process integration among systems, both CEPS and desktop;
- allowing users to communicate with one another easily;
- enhancing product quality and reliability at a reasonable price;
- increasing distribution efficiency and ease of maintenance; and
- improving health, safety and environmental protection, and reduction of waste.

NPES Bluebook – 2017 1

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Standards and Why they are Important

- Standardization provides a way to help shrink barriers to trade.
- Standards for the printing, publishing, and converting industry will enable processes to run faster, more predictably, more efficiently, and be more cost effective
- **Providing uniform, defined procedures and tools which help users produce quality products for their customers;**
- Facilitating interconnectivity and process integration among systems
- Allowing users to communicate with one another easily
- Enhancing product quality and reliability at a fair and reasonable price
- **Increasing distribution efficiency and ease of maintenance; and improving health, safety and environmental protection, and reduction of waste.**
- Many more……..

Safety standards provide guidelines for the design of safer equipment and for improved safety programs in the workplace. They provide for greater awareness of safety in the design of equipment, and increased consistency in operating procedures. They also emphasize that safety is the responsibility of everyone, including the equipment manufacturer, the owner, the operator and the maintenance personnel.

Implementation of safety features and procedures, along with advances in personnel training, will result in a decrease of injuries. This, in turn, will result in a safer work environment, less time lost from the job due to injuries, and reduction in workers' compensation costs.

Technical standards describe how to do a particular procedure in a defined way, with the goal of achieving compatibility and interchange of information between equipment, practices and procedures, and producing output with more predictable results. They also help to characterize various parts of the printing process, resulting in the development of characterization data which can be used by software programs.

Technical standards can make information systems easier to use and less expensive to operate. They allow communication between information users, publishers and other information providers about key methods, practices, procedures and formats reflecting marketplace requirements.

The adoption of technical standards facilitates the expansion of both domestic and international markets. It also provides users with an assurance that products and services from various sources meet a recognized level of quality. To the extent that such products and services are interchangeable, technical standards promote competition among suppliers and offer increased prospects for cost efficiency.

Many of the standards developed by the U.S. standards committees are now being introduced into the international standards arena, forming the basis for the development of international consensus standards.

Today, standards are no longer just for manufacturing. Whether you are a manufacturer, a reseller, a product user or a print buyer, standardization can be of benefit to you. You are encouraged to familiarize yourself with these industry standards, and to become actively involved in the development of new standards. It takes the cooperation of both equipment and product vendors and the users to develop standards which will best serve the industry. Even if you are unable to attend meetings, you can become involved by reviewing draft documents under development and providing comments. By familiarizing yourself with the standards for the industry, you can bring them to the attention of others, and encourage their implementation. Standards efforts to strengthen the industry can only be successful through the commitment of the industry to provide the technical personnel resources to develop and implement sound technical and safety standards.

Although company budgets are tight, and personnel resources stretched, it is increasingly important that U.S. manufacturers of equipment and technology, as well as the users of this equipment and technology, not only keep up-to-date on standards activities, but also become active participants in

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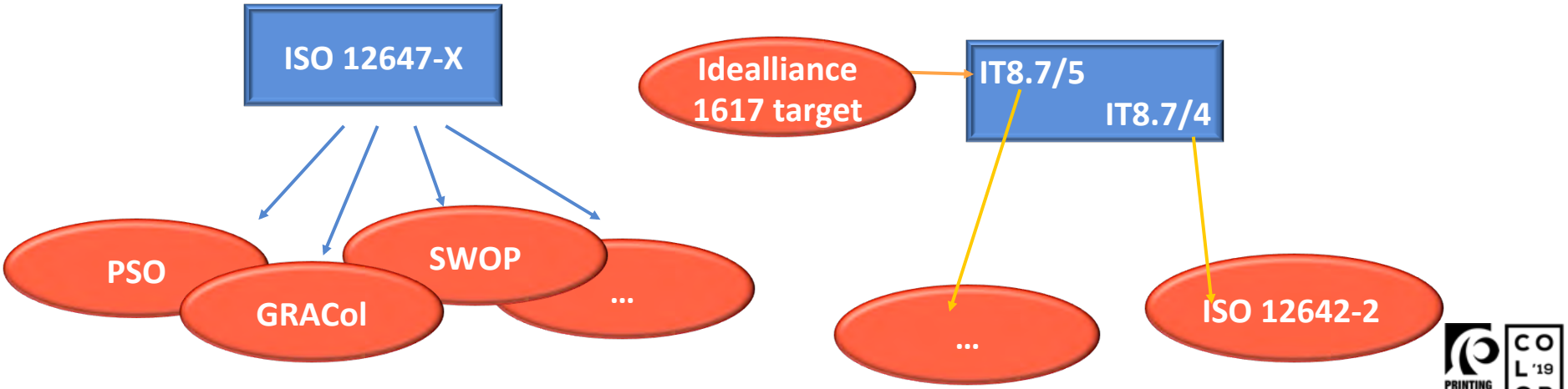
Standards and Why they are Important

- https://www.youtube.com/watch?v=DADoGeuYMqI

Why Standards Are Important

- National standards often become ISO standards
- In some countries ISO standards are considered legal industry requirements
- Most industry *Process Specifications* are standards based



Stages of Standard Documents	
PWI - preliminary work item	**NP** - new work item proposal
WD - working draft	**CD** - committee draft
DIS - draft International Standard (ISO)	**FDIS** - final draft International Standard
PAS - Publicly Available Specification	**TS** - Technical Specification
TR - Technical Report	

ISO TC130 Graphic Technology

*P members are voting members with an obligation to participate
** O members receive documents and can attend meetings

ISO TC130 Working Groups

ISO/TC 130/TF 3	Workflow standards roadmap
ISO/TC 130/WG 1	Terminology
ISO/TC 130/WG 2	Prepress data exchange
ISO/TC 130/WG 3	Process control and related metrology
ISO/TC 130/WG 4	Media and materials
ISO/TC 130/WG 5	Ergonomics - Safety
ISO/TC 130/WG 6	Not active
ISO/TC 130/JWG 7	Colour management (Joint WG with ICC)
ISO/TC 130/JWG 8	Revision of ISO 13655 (Joint W G with ISO/TC 42)
ISO/TC 130/JWG 9	Development of ISO 12640-5 (Joint WG with ISO/TC 42)
ISO/TC 130/WG 10	Management of security printing processes (Joint WG with ISO/TC 247)
ISO/TC 130/WG 11	Environmental impact of graphics technology
ISO/TC 130/WG 12	Postpress
ISO/TC 130/WG 13	Printing conformity assessment requirements
ISO/TC 130/JWG 14	Print quality measurement methods (w/ISO/IEC JTC 1/SC 28)
ISO/TC 130/JWG 15	Development of ISO 20294 (Joint with IEC/TC 100)

So let’s start here with our panel of Gurus….

ISO/TC 130/TF 3	Workflow standards roadmap
ISO/TC 130/WG 1	Terminology
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Beta Data Sets offset profiles (OBA's)

Recommendation

- Currently published offset profiles represent papers with no to low OBA content. Redefine the datasets to include moderate to high levels of OBA content

Category	L*	a*	b*
No OBA/Packaging	95	0	-2
Low OBA/Commercial	95	1	-4
Medium OBA/Commercial	95	1.5	-8
High OBA/Commercial	95	1.5	-12

Topics to consider

- Expanded Gamut 4 Color
- Multi-Color Gamut 5 plus colors
- OBA Beta Data Sets with new aims
- Development of a new Profiling chart
- TR 19305 – Graphic Arts Workflows Processes with inputs and outputs / Stakeholders Responsibilities..
- ISO online Browsing Platform Search engine for all things related to ISO standards including terms and definitions https://www.iso.org/obp/ui/#search
- ISO 12641-2, Advanced Colour targets for input scanner calibration Publication being prepared
- ISO 17972-4, Spot colour characterisation data (CxF/X-4) Published Jan 2018
- ISO 20616 Graphic technology -- File format for quality control and metadata
- Part 1: Print requirements exchange (PRX) WD
- Part 2: Print quality exchange (PQX) DIS being drafted
- ISO 15930-9 *Graphic technology — Prepress digital data exchange using PDF — Part 9: Complete exchange of printing data (PDF/X-6) and partial exchange of printing data with external profile reference (PDF/X- 6p and PDF/X-6n) using PDF 2.0* Approaching end of work period, canceled, now out for ballot as a new CD
- ISO 19593−1 *Graphic technology — Use of PDF to associate pro steps and content data* Published: April 2018
- PDF/X Application Notes Continued work item

- ISO 16612-3, Graphic technology – Variable data exchange – Part 3: Using PDF/X-6 (PDF/VT-3) CD
- ISO 16684-1 Graphic technology -- Extensible metadata platform (XMP) -- Part 1: Data model, serialization and core properties DIS approved ROC Dec. 11
- ISO 21812-1 Graphic technology -- Digital data exchange -- Print product metadata for PDF files -- Part 1: Architecture and core requirements for metadata DIS approved 11/2018
- Graphic technology -- Process control for the production of half-tone colour separations, proof and production prints
  - ISO/NP 12647-2 Graphic Technology - *Offset Lithographic process* Revision proposed
  - ISO 12647-6 Graphic Technology - *Flexographic printing* CD
  - ISO 12647-8, Graphic Technology - Validation print processes working directly from digital data Revision started
  - ISO 12647-9, Graphic Technology - Metal decoration printing processes CD
- ISO/TR 23031 Graphic technology -- Assessment and validation of the performance of spectrocolorimeters and spectrodensitometers DTR
- ISO/TR 23805 *Graphic technology -- Dry back calculation for offset printing process* CD

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Topics to consider

- ISO/TS 15311-1:2018 Graphic technology — Print quality requirements for printed matter — Part 1: Measurement methods and reporting schema *Publication being prepared*
- ISO/TS 15311-2:2018 *Graphic technology — Print quality requirements for printed matter — Part 2: Commercial print applications utilizing digital printing technologies* *Published Oct 2018*
- The curious case of ISO TS 10128 and ISO PAS 15339-1 and 2
  - Both reconfirmed in their respective forms though both have "aged out" of their status
  - US voted to revise 10128 and confirm 15339
- ISO/WD 2834-1 *Graphic technology -- Laboratory preparation of test prints -- Part 1: Paste inks* CD
- *ISO/CD 2836* Graphic technology -- Prints and printing inks -- Assessment of resistance of prints to various agents CD
- ISO/DTR 22909-1 *Graphic technology – Preparation of decorative laminate samples for appearance assessment — Part 1: General*
- ISO 22909-2 *Graphic technology – Preparation of decorative laminate samples for appearance assessment — Part 2: Liquid resin process* 22909 split into two documents one a TR the other an IS
- ISO 22934 *Graphic technology -- Communication of paste ink properties* WD/CD
- ISO 23498 *Graphic technology -- Visual opacity of white ink* NWI
- ISO 23395 *Graphic technology-Method and device for testing the ink or varnish adhesion on a substrate* *CD*
- ISO 12643 series, *Graphic technology — Safety requirements for graphic technology equipment and systems*
  - *Part 1: General requirements* DIS
  - *Part 2: Prepress and press equipment and systems* DIS
  - Part 3: *Binding and finishing equipment and systems* CD
  - Part 4: *Converting equipment and systems* CD
  - Part 5: *Manually-fed stand-alone platen presses* NWI
- ISO 14298:2013 *Graphic technology - Management of security printing processes* *Expect to start a revision next year*
- ISO 21632: 2018 *Graphic technology — Determination of the energy consumption of digital printing devices including transitional and related modes* Published Dec 2018
- ISO 20294: 2018 *Graphic technology — Quantification and communication for calculating the carbon footprint of e-media* Published Nov 2018
- ISO 16759:2013 *Graphic technology -- Quantification and communication for calculating the carbon footprint of print media products* *Reconfirmed*
- ISO 22067-1 *Graphic technology - Environmental statement criteria and parameters for printed products -- Part 1: Printing of packaging* NWI/WD

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Topics to consider

- ISO 19301 *Graphic technology -- Guidelines for schema writers -- Template for colour quality management* DIS approved ROC begun
- ISO 19302: 2018 *Graphic technology — Colour conformity of printing workflows* Published Dec 2018
- ISO/TR 19303-1 *Graphic Technology – Guidelines for Schema Writers – Part 1: Packaging printing* Preparation for Publishing
- WG 7
    - ISO/TS 21830 *Graphic technology – BPC for n-colour profiles Published Sept 2018*
    - ISO 20677 *Image technology colour management — Extensions to architecture, profile format, and data structure* Approved FDIS Nov 2018, preparing to publish
    - ISO/NP 23564: *Image technology colour management -- Evaluating colour transform accuracy in ICC profile* NWI
    - ISO TS 23534-1 *Image technology colour management -- Interoperability conformance specification: Architecture for process colour plus spot colour overprint simulation -- Part 1: Colorimetric processing* CD
- ISO/TS 18621-11 *Model for computing and analysing Colour Gamut project approved moved to DTS ballot after Tokyo*
- SO/TS 18621-31 *Evaluation of the perceived resolution of printing systems with the contrast - resolution chart DIS ballot approved but moved to 2nd DIS*
- ISO 20294 *Graphic technology –- Quantification and communication for calculating the carbon footprint of e-media* (DIS)
- Additional work: categorize e-media, collect info on carbon footprint of e-newspaper

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CGATS Committee for Graphic Arts Technology Standards

- IT8/7.5 Target passed committee
  - This target removes duplicates in the IT8/7.4 target and adds gray scales for the calculation of G7.
  - Tests have shown improved neutrals in standard ICC profiles
- TR016, Graphic technology — Printing Tolerance and Conformity Assessment
  - Killed/Reaffirmed/New draft being proposed
- Revising Recommended Industry Practices documents
  - http://www.npes.org/programs/standardsworkroom/toolsbestpractices/recommendedindustrypractices.aspx

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