

The New Year

„The Chinese use two brush strokes to write the word crisis. One brush stroke stands for danger and the other for opportunity.“

[Richard Nixon, 37th President of the USA]

For many companies, the close of this eventful Drupa year has been marked by a worldwide financial and economic crisis that has not left the printing industry untouched.

Fogra cannot of course influence overall economic developments but nevertheless high production quality and smoothly running processes continue to be key to the maintenance of competitiveness at times of economic difficulty and indeed are of particular importance at such times. We want to make our contribution towards this by standing alongside our member companies as a reliable working partner for technical

questions and innovations – from prepress to finishing.

Our central remit is to serve the printing industry. This includes research and development geared to practical requirements, the provision of reliable services and high quality training. In order to be up to this challenge we have further expanded our range of services in 2008. In prepress, for example, we might mention the softproofing handbook, which is now in great demand, the introduction of new certifications for colour copy in the design process [‘Validation Printing’] or the setting up of a new digital printing work circle.

We would like to offer Fogra to you as a platform for improved co-operation that enables you to benefit from the synergies of joint research projects and the knowledge and technological advances

that they deliver through our symposia, courses and diverse range of services.

What drives us forward is the belief that through our services we can help you to take advantage of your ‘opportunities’ in the sense of the above quote and so maintain your competitiveness.

As the year closes we could not pass by this opportunity to thank all those who have voluntarily worked with us or made contributions. We are far from taking your work, on the technical committees for example, for granted. At this point, we would also like to bid a warm welcome to the more than 50 new members and to thank the many loyal members for their constructive co-operation.

We wish you every success, both personally and professionally, for the New Year!



Stefan Aumüller, Chairman of the Council



Dr. Eduard Neufeld, Institute Director



The editorial staff

... wishes all readers of Fogra News and Fogra's E-mail newsletter a Merry Christmas and a successful New Year.

ISO News

The latest from international standardization

Andreas Kraushaar

ISO TC 130 represents the international standardization body for the printing industry. International experts active in terminology, prepress, press and materials met in Amsterdam this September.



Prepress and data exchange [WG 2]

PDF/X is getting variable

A substantial part of the discussion within WG 2 comprises the methods for the use of the PDF-format for the exchange or identification of all content elements necessary to create a variable data printing job stream as intended by the sender. A new part 2 of ISO 16612 [part 1 is known as PPML] has been discussed that should specify document layout, content data, and interaction of content elements in a transparency based graphics model. It is called PDF/VT, where "V" stands for variable and "T" for transaction and aims for two conformance levels [PDF/VT-1 and PDF/VT-2]. Subject to discussion have been mostly different caching approaches to be represented by pertinent data structures [e.g. VStruct] in the light of multiple potential uses. Involvement can be facilitated using vPDF@yahoogroups.com.

New test images

The ISO 12640-family defines test images and elements for different purposes. The first part defines the known CMYK test images ["ISO girl"], where the second part deals with sRGB and XYZ images. Part 3 of this standard defines CIELAB-test images [16-Bit TIFF] and

is now available at www.beuth.de. In addition, new standardized images for colour spaces with an extended gamut were discussed [ISO 12640-4/5]. Test images are available in low resolution at: <http://ampac.mech.muroran-it.ac.jp/ISO12640-4/>.

Characterization data

ISO standard 12642-1 defines for years an exchange format mainly for exchange of characterization data using ASCII tags and keywords. Unfortunately, only a few software vendors implemented this, leading to some pitfalls and cumbersome problems for the practitioner when exchanging measurement data from different manufacturer. Now a new standard [ISO 22178] will be published that defines an exchange format for colour and process control data [and the associated meta data necessary for its proper interpretation] in electronic form using either XML or ASCII formatted data files. It maintains human readability of the data as well as enabling machine readability. In light of a better data exchange within the graphic arts, we encourage all software vendors to implement this standard as soon as possible.

An all-new approach of exchanging colour related data comes from X-Rite and is called CxF2 [Color Exchange Format]. X-Rite would like to bring in their work as an international standard [ISO 17972] which goes beyond the functionality of the before mentioned documents [http://www.xrite.com/custom_page.aspx?pageid=66]. This standard is in an early stage.

GWG-Softproofing ticket

The working group discussed input from the Ghent Working Group [GWG] concerning the parameters necessary for reliable softproofing on a job-by-job basis. For that reasons the GWG-Softproofing ticket has been discussed to be subject for future committee discussion and potential inclusion into a new standard for softproofing requirements.



Process control and related metrology [WG 3]

The committee discussed the following eight working items:

- Viewing condition standard [ISO 3664]
- Colour measurement standard [ISO 13655]
- Digital proofing standard [ISO 12647-7 and ISO 12647-8]
- Softproofing standard [ISO 12646]
- Further improvements regarding the offset standard [ISO 12647-2]
- Reactivating the flexographic standard
- Method for adjustment of the colour reproduction of a printing system to match a set of colour data [ISO/TS 10128]
- Report on progress in paper categorization and use of OBA [optical brightener agents].

ISO 3664

More stringent requirements regarding viewing cabinets have been incorporated into the current draft. An additional annex will be introduced providing a working example including necessary



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calculations. The final document is to be expected after the last meeting to be held on 29th September in Cologne.

ISO 13655

Severe technical comments have been raised during the last ballot. Namely a new measurement condition called "M0" will be added. Therefore a revised document will be prepared subject for a second DIS ballot. Though, four different measurement conditions are defined:

"M0" makes provisions for illuminant A instrument [light sources]

"M1" makes provisions for illuminant D50 ["rich UV"]

"M2" makes provisions for UV-cut measurements

"M3" extends "M2" by provisions for measurements using polarisation filters

It is therefore possible to unambiguously identify the correct measurement conditions within any process standard [e.g. ISO 12647-2] in order to facilitate the individual tasks such as the definition of the solid colouration.

ISO 12647-7 and ISO 12647-8

The "Contract Proof Standard" is finally published and available for purchase at www.beuth.de. The parallel discussion of a second level of less stringent quality requirements has led to the agreement to name it "Validation Print". Anyhow, there was a debate again of how to split "Validation Print" into a new part 8. A resolution by TC130 approved that action. Though the current content will be revised to be presented as a single part 8 document to be subject for a second CD ballot. Only Switzerland voted against that split up.

The FograCert Validation Printing System will be unaffected for the time being but subject to be based on ISO 12647-8 in the near future. Final publication of this standard is not expected before 2010.

ISO 12646

The document has been finally published in summer 2008. Late comments from the US have been discussed to be incorporated as an amendment.

An all-new standard addressing requirements for high quality softproofing

have been initiated. Mr. Heath Leutkens [CGS] will be the project editor and the first document will be based both on the IDEAlliance Softproofing procedure and current research work at the Fogra softproofing project.

ISO 12647-2

The pro and cons of a single or additional [modified] TVI-curves as well as an updated paper categorization have been discussed controversially. In the light of a wisely chosen balance between causing confusion in the market by publishing too many revisions and amendments to well working and established standards and updating and refining current documents, the committee decided that additional work is necessary in order to come up with new work. The consensus was mainly in the direction of additional grey balance requirements, updated paper categorizations and updated curves.

The group then discussed that a second set of document[s] aiming for "shared appearance" [e.g. via characterization data] across processes and paper types might be necessary. For such a document provisions must be made to link the colour definition with the pertinent process controls.

Reactivation of ISO 12647-6 flexography

Based on work done by the American Flexography Technical Association [FTA], the somehow ignored part 6 of ISO 12647 will be reactivated. In the light of the systematic review, major input is expected to start the ISO process as of 2009. The Committee agreed to use the document as the basis for the upcoming periodic review.

ISO/TS 10128

The technical specification ISO/TS 10128 "Methods of adjustment of the colour reproduction of a printing system to match a set of characterisation data" is currently under final ballot. The final technical report will be expected at the beginning of 2009.

Paper categorization

TaskForce 1 within WG 3 is dealing with the paper categorization. The progress so far was not substantial. Contrary, the discussion dealing with the problems in the process control and in colour management due to an increase us of OBAs in the production stock was quite controversial. Representatives of the paper industry gave an interesting presentation dealing with the measurement differences between the paper and the paper making industry.

First, they reported on the differences between readings taken from integrating sphere and "0/45" instruments [Elrepho and X-Rite i1] on typical coated and uncoated paper comprising an intermediate level of OBA. Results were reported to be different, but reasonably consistent. It was highly appreciated by the group that the paper maker committee are willing to provide a list of correspondence paper grades and characterization data sets and colour information with D 50 illumination.



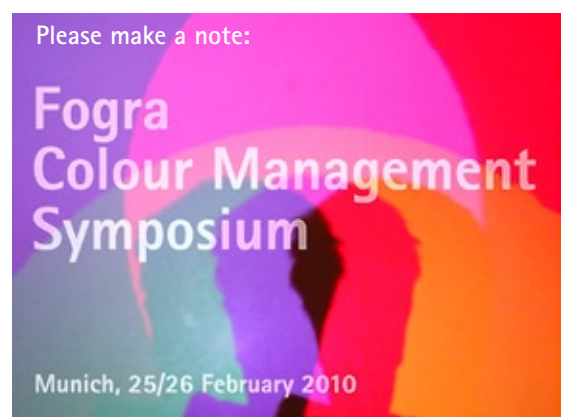
Next Meetings:

18 – 23 May 2009 [Dallas, USA]
September 2009 [Peking, China]
Spring 2010 [Madrid, Spanien]



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Thermal Plates and the Alternatives

8th Fogra Computer-to-Plate Symposium on 27/28 May 2009

Speakers will give detailed information about quality management to all plate technologies. There will also be a practical insight into imaging, plate surface evaluation, print quality and ink-water balance for the plate types.

The symposium will address the following topics:

- The future of thermal plates
- Chemical reduced or process-free plate technologies
- Imaging with UV light
- Alternative plate technologies for small size print

Price: EUR 580.00 [excl. VAT]

Fogra members get discount!

The symposium will be held in German and pending on sufficient numbers of foreign language participants, a simultaneous interpreting will be provided.



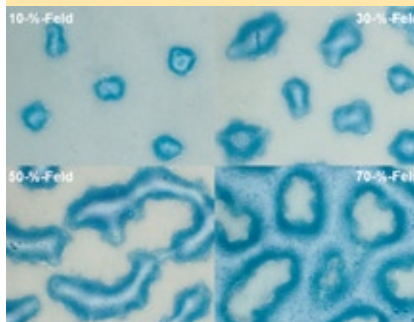
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New Fogra research reports

Study of modern halftone screening methods for screen printing

The results of this research project show that moiré can be greatly avoided when NP [non-periodic] screens are used in screen printing. But when selecting screen meshes, it should be observed that the diameter of the NP halftone dots does not match with the reciprocal value of the screen fineness.



Manufacture of multilayer cards by digital printing on synthetic rigid films

By the results of the tests within this project it could be proved that usable and durable plastic cards that are already personalized in the printing process can be produced with the help of the digital printing processes. Anyhow further improvements of the lamination processes are still necessary, so that henceforth even these card versions are completely compliant with the requirements of ISO/IEC 7810 independent of the print pattern.

The abridged research report in English is free of charge for Fogra members. The fee for non-members is EUR 25.00, delivery charges will be added.

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UV User Printing Forum

Fogra invited UV printers and their suppliers to Munich for the 5th User Forum UV Printing on 29/30 October 2008. 230 participants attended and experienced a many-layered event at which simultaneous translation was offered.



UV printing is expensive. It requires cost intensive equipment, its energy requirements are quite high, the materials used are expensive and it has an unstable ink/water balance in offset printing. Due to this, in many cases, maximum printing speeds are not or cannot be achieved. However, UV printing is also a niche in which one can produce high-quality print products, which can be sold at a profit even in the high-price German market – especially since competitors in low-wage countries are not able to manufacture these products at the high level of quality demanded.

Due to increased requirements of quality, UV printing has a high growth rate in the shrinking market for print products for years now. It can therefore be assumed that all participants hoped that growth rates remain high at a stable price level for as long as possible. In the long run, UV process costs must be reduced in order to make this possible. The User Forum this year therefore showed/illustrated/demonstrated basic approaches towards improving the cost effectiveness of UV printing.

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