

DRAFT AGENDA**ISO/TC 130 WG 2 TF 2 — PDF/X****16th Meeting****22 April 2010 – 14:00 – 18:00****23 April 2010 – 09:00 – 18:00****St. Gallen, Switzerland/Webinar****1. Call to order / Introductions**

The meeting was called to order by Dov Isaacs, Convener. Due to travel being disrupted for many of the participants the meeting was held both physically in St. Gallen and via a GoToMeeting Webinar.

The following technical experts were in attendance (either in person or on the web as noted) and introduced themselves:

Dov Isaacs*, chair	Adobe Systems Inc.	USA
Dave McDowell*, co-chair	NPES	USA
Debbie Orf*, secretary	NPES	USA
Victor Asseiceiro	GMG Americas	USA
Frank Biederich	Adobe Systems Inc.	Germany
Ray Cheydleur*	X-Rite	USA
Olaf Drümmer	Callas Software	Germany
Joe Fazzi*	IDEAlliance	USA
Phil Green*	London College of Communication	UK
Xiahoue He*	BIGC	China
Ahn Hye-Jeong		Korea
Stephan Jaeggi	PrePress Consulting	Switzerland
Paul Jones*	Objectif Lune	Netherlands
Andy Kraushaar	FOGRA	Germany
Lucy Liu*	Heidelberg	China
Heath Luetkens*	CGS Publishing Technologies	USA
Filiep Maes*	Belgium	Enfocus
Marc Mahy	Belgium	Enfocus
Makoto Matsuki	NTT Quaris Corporation	Japan
Karl Menecke	Germany	Bvdm
Bruno Mortaro	ABNT	Brazil
Lieven Plettinck*	Belgium	EskoArtwork
Mary Lou Pelaprat*	ISO/CS	Switzerland
Dick Presley*	Kodak	USA
Craig Revie	Fujifilm Corporation	UK
Danny Rich*	Sun Chemical	USA

Leonard Rosenthol*	Adobe Systems Inc.	USA
Steve Smiley	Vertis Communications	USA
Kyung Cheol Song*		Korea
Walter Steiger	Ugra	Switzerland
Supree Thongpetch	Colour Doctor Co., Ltd.	Thailand
Hitoshi Urabe*	Fujifilm Corporation	Japan
Rotti Venkataramana		India
Larry Warter*	Fujifilm Graphic Systems USA	USA

**Participated via Webinar*

2. Review and approve agenda (N 328)

The committee reviewed the draft agenda (N 328), which had been distributed prior to the meeting. The agenda was accepted as distributed.

3. Review and approve minutes of last meeting (N 322R)

The committee reviewed the minutes of the 25 September 2009 meeting held in Beijing, China (N 322R). There being no corrections, the minutes were approved as distributed.

4. Review Action Items (N 323)

The committee reviewed the action items from the September 2009 meeting (N323), noting the status of each as follows:

AI #	Action Item	Status
09-01	Rosenthol will take the data elements needed for spot colour processing identified by Revie and Smiley (for WG2) (N 1351 – N 1351f), and will develop a proposal for how that data should be encoded into a PDF file for ISO 32000.	Completed.
09-02	Abbott will circulate information resulting both the WG2 and WG2/TF2 Action Items relating to spot colour to both WG2 and WG2/TF2 Experts.	Completed.
09-05	Rosenthol and McDowell will prepare a document for distribution to the members of TC 130 summarizing the proposed changes to ISO 15930-7 and ISO 15930-8 as agreed to by WG2TF2.	Completed. (TC130 N 1547)
09-06	Rosenthol and McDowell will prepare the revised text of ISO 15930-7 and ISO 15930-8 as described above to be forwarded to ISO/CS	Completed. FDIS Ballots in circulation

	for FDIS ballot at the end of the review period.	
09-07	Rosenthol will take presentation from Revie and formalize into a proposal for the ISO 32000 committee. Rosenthol to submit to Orf for distribution to the committee for a one week review.	Open
09-08	Revie and Rosenthol to request that the ICC develop a white paper discussing changes to the PDF rendering model necessary to support the new mixing hints dictionary being proposed to ISO 32000. In addition, it should also address the concerns of Drümmer's letter on overprint.	Completed – this work has been agreed as a suitable project by the ICC Steering Committee and has been initiated as a work item of the Graphic Arts Special Interest Group.
09-09	Isaacs to draft a formal letter to key vendors within the packaging community to encourage participation.	Open

5. Review preliminary results of FDIS Ballots of ISO 15930-7 and 15930-8

ISO 15930-7 *Graphic technology – Prepress digital exchange using PDF – Part 7: Complete exchange of printing data (PDF/X-4) and partial exchange of printing data with external profile preference (PDF/X-4p) using PDF 1.6*

ISO 15930-8 *Graphic technology – Prepress digital exchange using PDF – Part 8: Partial exchange of printing data using PDF 1.6 (PDF/X-5)*

Minor revisions of both of these documents are currently in FDIS ballot which closes 5/9/10.

Drümmer brought up a concern from Germany that in Clause 5 a PDF/X-4 reader is described as "a software application that is able to read and appropriately process, according to the rules defined in this part of ISO 15930, all files conforming to:" followed by a list that includes PDF/X-4, both versions of PDF/X-3 and both versions of PDF/X-1. The problem is that there may be differences between the interpretation of some features between each of these versions and ISO 15930-7 does not provide any guidance as to how the file is to be interpreted — using the original specification of the latest specification. Further these are statements not requirements.

One suggestion was to recommend that an X-4 reader should always process X-4 files according to the X-4 rules, an X-3 reader according to X-3 rules, etc. Another suggestion was that one way of adjusting for this is to process according to the current PDF standard rules, and then adjust against the specific PDF rules for the document being processed. Always using the same version of PDF which may not be current with the standard but will provide consistency because it is always adjusted based on the standard requirements.

The question was asked that if assuming X-4 is better than X-3 should all files be processed with an X-4 reader or is it best to process an X-3 file with an X-3 reader. It was argued that although X-4 is better, that doesn't mean the X-4 reader should always be used to process the X-3 file given that there are many cases where an X-3 file cannot be made into an X-4 file without significant modifications, beyond metadata, resulting in a rendering difference.

It was suggested that providing clear instructions on the consideration of using PDF/X-3 versus PDF/X-4 may help avoid the problem, perhaps a pop up indicating the version of the PDF with a request to continue in the same version or choose another. Another suggestion was that if an X-4 conforming validator recognizes an X-3 file coming a warning could be given, instead of an error, detailing any possible differences in the X-3 and X-4 behavior.

Another proposed solution is to put an informative note in the specification to provide backwards compatibility indicating there may be certain cases where a subtle difference in output may occur when processing an X-3 file with an X-4 reader.

These discussions resolved into three options:

- a. PDF/X-1a and PDF/X-3 files must be processed as defined only in PDF/X-1a and PDF/X-3
- b. PDF/X-1a and PDF/X-3 files must be processed as defined in PDF/X-4
- c. Remove any reference to PDF/X-1a and PDF/X-3 in the PDF/X-4 2010 standard. The text to be removed would be bullets 2-5 in Clause 5, paragraph 6 of ISO 15930-7. It was noted that this might constitute a technical change requiring that the document be put back into DIS and re-balloted. Another problem with this option is that there are other places in the document where reference is made to PDF/X-1a and PDF/X-3 that are not related to conforming readers.

There was a question about whether a no vote on an FDIS would require going back to the NWI phase and moving again through CD and DIS meaning a minimum of a year to complete the process.

Pelaprat was consulted concerning the possible solutions. She indicated that she needs specific information regarding the proposed changes so she can consult with others at ISO/CS before providing an official proposal. She noted that removal of requirements does constitute a technical change. Pelaprat indicated that after receiving the information on specific changes she would provide feedback from ISO/CS by May 4.

Action Item 10-01: McDowell will provide a written comment to Pelaprat by April 26 detailing the proposed changes to ISO 15930-7 and asking if this can be accomplished through an editorial change without additional balloting.

Action Item 10-02: Olaf, Revie, and McDowell to take offline and create an edited version of ISO 15930-7.

The committee discussed a comment from Belgium regarding the use of .notdef glyph. The problem encountered is that more than 30% of PDFs (in a sample of 2000 files) failed because

they did not follow the .notdef requirement. The customer complaint is that although the files print correctly they don't pass the PDF/X-4 .notdef test.

In addition, this comment noted that TrueType fonts have a similar system (glyph 0), but the use of this glyph is not restricted to the fallback for a not defined glyph. Many TrueType fonts use this glyph 0 both for rendering not defined characters and space (and not glyph 3 as recommended by the specification for space), so if this restriction applies to TrueType fonts it will be very difficult to create PDF/X-4 compliant files that contains text with spaces.

It was noted that the PDF/A committee received the same comment and decided it was not valid because while the exact terminology doesn't exist in true type a similar issue exists.

The committee agreed this comment was not accepted for technical reasons. Belgium agreed to retract the comment.

6. Discussion of additional work required re PDF/X family

6a Spot color issues

A letter was sent to both TC130 and TC171 from several organizations expressing the desire to improve the issue of overprint simulation inside ISO 32000. The ISO 32000 committee discussed the proposal and formed a Task Force consisting of technical experts to discuss this and other color issues. The committee has conducted discussions through email and proposed text that will be put into ISO 32000-2 to describe the general handling of overprint simulation. The Task Force will submit the text during the CD ballot review for 32000-2, which will be discussed in Paris.

Action Item 10-03: Drümmer to provide feedback from ISO 32000 committee regarding Part 2 before June to Orf for circulation to WG2 and ICC GASIG working group.

It was discussed and agreed that more meetings are necessary for WG2 TF2 than the currently scheduled two times per year, therefore the committee will meet via teleconference and/or webinar. The first meeting will take place after the next meeting of the ISO 32000 committee to discuss the progress made there.

Action Item 10-04: Isaacs to put together a plan for regular conference calls to provide meetings other than the two regularly scheduled face-to-face meetings per year.

6b Other packaging needs

No Report

6c Inputs from TC 130 into ISO 32000-2

Rosenthol reported that there is a desire to enhance PDF's ability to carry additional information about inks (or as described in PDF separation colorants). The committee discussed the document (N 0329) presented by Rosenthol and the form it should take going forward.

Rosenthal indicated that there is a need to incorporate CxF based information inside the PDF along with the ink that it represents. He noted that those performing soft proofing want solutions that are available today, and there isn't always enough information in the PDF to create a reliable simulation of the final destination device.

Also there is a need to incorporate additional information about inks, i.e. solidity (opacity) and the order in which they are printed. It was noted that these attributes already exist in the PDF mixing hints dictionary. All new information is optional but the ability is there now to incorporate information and if wanted a reader can choose what to use.

The spectral data is handled the same way via the spectral data dictionary. The value of each key in the dictionary is an actual stream of CxF data although there are no specifics on the level of CxF to be used. The Ghent Working Group has taken up the task of defining specific profiles of CxF usage. The work of this committee will be to identify the streams of data that shall be included as CxF.

Two options were discussed, to deliver this as a separate document from TC130 WG2/TF2 or to recommend to the TC 171/SC2 WG7 committee that they include it as a standard normative feature in PDF language. Rosenthal recommends the second option and stated that this data structure has been presented to the ICC and other groups and received no objections. He noted that this option requires no changes to ISO 32000-1.

There was a question on how spectral data gets into a PDF file. It was suggested that the preferred way, at least for spot colors, is to start from a common base. It was stated that we are not mandating how the data gets in the file, but some ink manufacturers have indicated that they will update their data. It was noted that this is out of scope for this committee and up to the vendors and manufacturers.

There was a discussion on spectral data and the recommendations relating to CxF for spot color; specifically whether there should be one CxF file for all colors or one CxF file per spot color. There was disagreement on this issue.

It was suggested that one CxF file per spot color is better from a RIP perspective as buyers and designers think if their library is lumped together that would create problems. If a file is modified there is more flexibility with separate CxFs per spot color, otherwise the entire CxF has to be rewritten for the file.

A discussion followed whether there should be two separate locations for information about spot color and TVI information. The TVI element in the mixing hints dictionary is already part of the CxF language. The original proposal was to not put in TVI. However, after discussion with other groups, the decision was made to leave it to accommodate those who have basic TVI information but no CxF data.

In discussing the mixing hints dictionary it was felt by some that our focus should be on CxF only and the mixing hints should be removed entirely from the output intent. Others felt the mixing hints should be left as that is where the printing order is defined. It was agreed that printing order is important and that dot gain should be removed from the mixing hints dictionary.

There followed a discussion regarding solidity which in CxF is equivalent to opacity. It was felt that regarding printing order and solidity TVI should be left where it is to avoid having to unpack the CxF document and check that it is provided correctly before the PDF can be rendered to screen color. It was felt that this places a large burden on the renderer of the PDF file.

Anyone creating a document now is required to learn how to do it in CxF creating a whole new space in terms of the additional checking to be done, etc. Assuming data comes from ink manufacturers and the end user is going to put this information in, there would be no need for solidity or dot gain by just taking the CxF information available.

Within ISO 32000 part 2 there has been a proposal for incorporating black point compensation information. However, it was felt that black point compensation in this content should have no meaning. In PDF you can specify rendering intent, but there is no mechanism that describes spot colors.

The question was asked if there is ever a case where the dot gain solidity information would come from somewhere other than the manufacturer and, if so, who would provide it? It was felt that ink manufacturers will not provide the spectral data because it is considered proprietary information. Also, it was felt that ink manufacturers may not be able to provide the dot gain information as they do not know the strength of the ink that will be used, leaving the printer to put in the dot gain. Rich indicated that ink manufacturers have no problem with supplying the spectral data, in general; the information that will not be provided is how that data was obtained.

It was noted that data for authorizing the inks in CxF do not necessarily always come from ink manufacturers. There are service bureaus and converter printers who build up their own database of spectral ink characterization for themselves for use in the workflow.

Also discussed was whether ink manufacturers are able provide the TVI information for the ink or if that is dependent on the way in which the piece is printed? It was felt that ink manufacturers have no way to assess TVI because everything is done on solids.

Rich noted that in the few cases where a customer asks for a color measurement at 50% tones, it is sent to another lab where they print a vignette. The manufacturer then runs along until a number is found on the vignette that matches the tolerance. Therefore, the actual TVI could be anything, what is important is to determine is whether it can be located on a tone scale.

It was determined that when designing a PDF the intended printing condition put into the output intent may not be what the printer ends up printing. Therefore, it is up to the printer to make any decisions regarding changing the file or the press, etc. to obtain the desired final output.

It was determined that printing order is essential otherwise there is no way to know the laydown order of the ink.

Revie argued that TVI should not be included but that solidities and printing order should be. He noted that there are sophisticated models taking spectral color data and trying to work out how to make an accurate color proof. Today most are proprietary models and covered by intellectual property rights making it difficult to define what to do with a PDF document when attempting to

achieve a close simulation of the final printed result. It is important to find a common method to produce these documents which is the reason for both solidity and CxF to be included.

There was a concern that in order to show the PDF onscreen it is now necessary to understand CxF which seems a big burden to introduce. Some developers dislike pulling in XML files, etc. unless there is a very good reason. It was argued that most of those who are doing this work will eventually have CxF and must learn to work with it.

After further discussion, there was general agreement to take the printing order only up to the top level of output intent and include CxF with no dot gain and no solidities. Revie will submit his objections in the form of comments to ISO 32000.

The decision was made to ask that this included as a part of ISO 32000-2 which is on schedule for 2011 or 2012 publication. Rosenthol will revise the document and send it to TC 171/SC2 WG7 (responsible for ISO 32000). He will update the committee at the next meeting in October on the developments in TC 171/SC2 WG7.

Action Item 10-05: Rosenthol will revise the document on Additional Ink Attributes and send to TC 171/SC2 WG7

7. Other business

No other business was identified.

8. Future meeting plans

The committee discussed the time requirements for WG2/TF2 for October 2010 and agreed that 1 ½ days will be needed.

9. Review action items

The action items were reviewed and agreed upon.

10. Adjourn

Isaacs thanked Drümmer for all the work he did arranging the teleconference hookup at the last minute on behalf of all the remote attendees and thanked all the attendees for taking the time to participate.

There being no further business, the meeting was adjourned.