

**ISO/TC 130/WG2 — Prepress Data Exchange
38th Meeting**

**Fort Worth, Texas, USA
18 May 2009**

1 Call to Order - Welcome - Introductions, Roll Call of Experts, Announcements

The meeting was called to order at 9:00 a.m. by David McDowell, Convener. The following technical experts were in attendance and introduced themselves:

David McDowell, Convener	NPES	USA
Mary Abbott, Secretary	NPES	USA
Debbie Orf, Secretary	NPES	USA
Martin Bailey	Global Graphics	UK
Ray Cheydleur	X-Rite	USA
Tim Donahue	Kodak	USA
Dov Isaacs	Adobe	USA
Andy Kraushaar	Fogra	Germany
Karl Meinecke	bvdm	Germany
Bruno Mortara	ABTG	Brazil
Craig Revie	Fujifilm	UK
Steve Smiley	Vertis/FTA	USA
Roland Thees	IFRA	Germany
Larry Warter	Fujifilm	USA
Erwin Widmer	Ugra	Switzerland
David Williams	Ricoh	US

It was noted that the Japanese and Chinese delegations were not able to attend due to company and government travel restrictions resulting from concerns relating to the flu outbreak.

2 Review and approve agenda

The committee reviewed the draft agenda (N 1331), which had been distributed prior to the meeting. The following were added:

- Under 12, add a report from Japan
- Under 16, add a report from WG 1
- Under 10a, change "28178" to "17972"

The agenda was approved as amended (N 1331R).

3 Identification of new documents

The WG2 documents listed below were identified as having been distributed since the last meeting (including documents provided at this meeting). Documents not yet distributed will be posted on the WG2 portion of ISO Livelink.

- N 1310 ISO CD 10617
- N 1311 Report to the Plenary; 10/3/08
- N 1312 Attendance List from September 08 meeting in Amsterdam; 10/3/08
- N 1313 Ifra proposal for a new standard
- N 1314 Email distributing ISO/CD 10617 to WG2 for information, and requesting that comments be sent to Cheydleur by November 1; 10/7/08
- N 1315 Presentation by C. Revie on "Distributed approval of PDF documents" (soft proofing)
- N 1316 Draft 1 of Ghent PDF Workgroup Soft-Proofing Ticket

- N 1317 Email distributing Draft 1 of Ghent PDF Workgroup Soft-Proofing Ticket for review and comment; 10/7/08
- N 1318 Liaison report from ECI
- N 1319 Minutes of the 25 September 2008 meeting in Amsterdam
- N 1320 Action Items from the 25 September 2008 meeting in Amsterdam
- N 1321 Reminder re comments on Draft 1 of Ghent PDF Workgroup Soft-Proofing Ticket for review and comment; 11/12/08
- N 1322 Comments from M. Bailey on Draft 1 of Ghent PDF Workgroup Soft-Proofing Ticket
- N 1323 Email distribution Result of Voting on ISO/CD 12640-2; 11/25/08
- N 1324 DIS 12640-4 DR #6
- N 1325 Resolution of comments on ISO CD 12640-4
- N 1326 Comments from J. Iobst on Draft 1 of Ghent PDF Workgroup Soft-Proofing Ticket
- N 1327 Meeting notice for May 2009 meeting in Fort Worth; 1/16/09
- N 1328 Roster as of January 2009; 1/22/09
- N 1329 Email transmitting information from Bailey on new draft of OpenXPS standard; 2/5/09
- N 1330 Email transmitting Result of Systematic Review of ISO 12640-1:1997 and ISO 12641:1997; 3/18/09
- N 1331 Draft agenda for May 2009 meeting
- N 1332 Status report on TC 130 WG 2 projects

4 Review and approve minutes of September 2008 meeting

The committee reviewed the minutes of the 25 September 2008 meeting held in Amstelveen, The Netherlands (N 1319). There being no corrections, the minutes were approved as distributed.

5 Review status of action items from September 2008 meeting

The committee reviewed the action items from the September 2008 meeting (N 1220), noting the status of each as follows:

#	Action Item	Status
08-02	Drümmer, Donahue and Isaacs will develop an article to be placed in the ISO Bulletin and other publications regarding the PDF/VT work.	Open
08-08	McDowell will request that work relating to CxF be initiated at Stage 0 as ISO 17972.	Completed; TC 130 Plenary Resolution 340
08-10	McDowell will follow up with ICC to ensure this profile pointed to in the Technical Corrigendum to ISO 12640-2 is properly posted on a publicly accessible portion of the ICC website. (Relates to corrigendum to ISO 12640-2)	Completed
08-11	Mortara will review ISO 12640-4 specifically for the purpose of identifying areas in which additional information may be useful to provide further guidance for the less experienced user.	Completed. Concern was voiced regarding the limited documentation available that discusses the relationship of the parts of ISO 12640. Action Item 09-01: McDowell will discuss with Urabe and Holm the possibility of developing a Technical Report regarding the application and relationship of relationship of various parts of ISO 12640.
08-12	Abbott will circulate a copy of ISO/CD 10617 to WG2 for information, and request that comments be sent to Cheydleur by November 1.	Completed (N 1314)

#	Action Item	Status
08-13	Iobst, Kraushaar and McDowell will review ISO/CD 10617 and provide comments to Cheydleur .	Completed
08-14	Cheydleur , as TC 130 liaison to TC 38, will submit TC 130 comments on ISO/CD 10617 to TC 38.	Completed
08-15	A task group led by Cheydleur and including Iobst, Kennedy, Kraushaar, Luetkens, and Smiley will prepare a proposal regarding options for the committee to consider by February . (Relates to CxF-based work)	Completed
08-16	Abbott will circulate a copy of the GWG draft soft proofing ticket document to WG 2 for review and comment by the end of November, noting that it is a draft for comment only.	Completed (N 1317)
08-17	Revie will prepare a summary document describing identified issues and possible ways forward to be distributed to the members of both WG 2 and WG 2/TF 2 for review and comment, and discussion at the spring meeting. (Relates to proofing approval metadata)	Completed during this meeting.

6 Review status of WG 2 documents and pending projects

A written report of the status of the WG 2 work (N 1332) was distributed by e-mail. The Experts were asked to review this report and provide any additions or corrections to Abbott.

It was suggested that at the fall meeting each year, the committee should note the documents that will be coming up for systematic review the next year, and determine if there are any anticipated issues relating to those standards.

7 Report on status of WG2 Task Forces and Joint Working Groups

7a Task Force 2 (PDF/X)

Martin Bailey, Chair of TF 2, reported that TF 2 will be meeting at the end of this week. He noted that ISO 15930-7 and ISO 15930-8 were published last year and the industry is beginning to see some implementations of PDF/X-4. There have been a number of requests that the committee look again at PDF/X-4 and considering extending it to address additional data for spot colors (e.g. spectral measurement) and how layers are encoded. The current PDF/X-4 rules are focused on commercial print (to make it hard for people to do the wrong thing) which limits the flexibility that is needed by the packaging community.

Bailey noted he has chaired TF 2 for some time; however, because of changes in his work responsibilities, he does not feel he is going to be able to continue as chair of the task force after these meetings.

The committee thanked Martin Bailey for his excellent leadership of TF 2, and thanked the members of the task force for their work on the various parts of the PDF/X family of standards.

7b Task Force 3 (Variable data exchange)

Donahue reported that TF 3 met in Berlin in January to prepare the document for CD ballot. It has since been approved as a CD for DIS with comments, which will be addressed in this week's meeting. It is hoped that the document will be ready for circulation for DIS ballot following this week's meeting. Although it is possible this could be delayed in the event the committee feels it is not ready for DIS ballot following this week's meeting. It

was noted that officially the document needs to be in ballot by 21 September to meet the ISO guidelines and avoid potential project cancellation.

This committee has been interfacing with TC171/SC2/WG8 (PDF Reference), resulting in inputs to and modifications of ISO 32000-2 to facilitate the PDF/VT work. The group has also been interacting with CIP4.

In addition to developing ISO 16612-2, the committee is also working on application notes for the standard. The committee has been holding weekly teleconference meetings to address both the standard and application notes.

The committee thanked Tim Donahue for his leadership of TF 3 and the members of the task force for their work.

7c JWG 7 – ISO 15076 (ICC)

McDowell reported that ICC has been working on a new version of the ICC Specification and has requested that this be processed as a revision to ISO 15076-1. Concern was expressed that there are implementations of the existing version, and that once the standards is revised, it will be difficult to obtain the previous version. It was noted there will be nothing in the revision that will obsolete applications written to the older version of ISO 15076-1. In addition, it was noted that there will be a clause in the revision that identifies the differences between the two versions, especially as they relate to the tags.

7d JWG 9 – ISO 12640-5

McDowell reported that this joint working group met on Saturday, 16 May. Work on this document is progressing well.

8 ISO 12640-1 – Review Result of Systematic Review (TC130 N 1431)

The systematic review resulted in two votes to revise the standard, one from Brazil and one from Sweden. As a result, WG 2 has been asked to discuss this and to make a recommendation to the Plenary in the fall.

Mortara indicated a desire to withdraw Brazil's vote to revise. In Sweden's vote to revise the standard two issues were identified:

- *The references to ISO 12640-2 and ISO 12640-3 need to be updated.*
- *Clarify that CMYK target values need to be updated according to ISO 12647 for given print process and paper type.*

The committee noted that a revision simply to update informational material is not permitted by ISO. The committee felt that a white paper to address the relationships between the various parts of ISO 12640 would be useful and would also address this issue.

In ISO 12640-1 we clearly identify that the images in the standard are intended to be process-independent CMYK data and as such do not, and should not, refer to any particular part of ISO 12647.

The consensus was that ISO 12640-1 should be reaffirmed.

Action Item 09-02: McDowell will prepare a resolution for the Beijing Plenary recommending that ISO 12640-1 be reaffirmed.

9 ISO 12640-4 ((AdobeRGB(1998)/SCID)

9a Report on progress

McDowell reported that ISO 12640-4 is currently in DIS ballot.

Kraushaar stated that he feels this document is not applicable for soft proofing, and can't be used for the certification of D50-calibrated soft proofing systems. He would like to have a sentence added to the scope to address this.

McDowell responded that the introduction says these images can be used for evaluation of any reproduction system where AdobeRGB is the input color space. He pointed out that these AdobeRGB images should probably never be compared directly (as is) to evaluate a monitor proof because few monitors can display the AdobeRGB gamut. Perhaps a statement to that effect should be included in the document.

It was also noted during the discussion that evaluating the images themselves is different from using the images to evaluate the processing of images in a workflow.

Kraushaar said that he will ensure that a comment is included in the German DIS response to address his concern.

9b Report from Mortara re his review of ISO/DIS 12640-4 (AI 08-11)

Mortara reported that as a result of further review, he believes nothing else is needed.

10 Color data encoding

10a ISO 17972 – Report from X-Rite

Cheydleur provided a brief tutorial on XML. (WG2 N 1335)

He then provided an update relating to CxF (WG2 N 1338). The presentation summarizes the intent of CxF, concerns voiced relating to CxF2, and key differences found between CxF2 and CxF3.

The committee discussed some of the details provided during the presentation to get a better understanding of CxF3 and how it addresses the industry needs. A key change is that the structure has been divided into CoreResources and CustomResources. CoreResources are validated and contain core color information. CustomResources are well formed and are like xml Namespace documents. CustomResources can reference the information in CoreResources but CoreResources cannot reference information in CustomResources. This allows for flexibility and customization of how the data in CoreResources may be used in application-specific ways such as targets, characterization data sets, formula books, etc.

The work of TC130 WG2 will focus on CustomResources.

Cheydleur recommend that we reference CxF3, rather than CxF2. He also feels there is a need to identify individuals to define the require elements for CustomResources for ISO applications. He indicated he can provide a draft of the CxF3 schema to the committee, noting that the final schema will be available in June.

10b Discussion of way forward

The committee reviewed the issues identified at the previous meeting, and shown below.

Those fully defined in ISO 28178 are:

- scanner target characterization data (ISO 28178) –
- characterization data sets (ISO 28178) –
- target measurement data (ISO 28178)

Those requiring additional definition are:

- target definition
- substrate properties
- ICC profile container/pointer
- ICC profile data as XML data
- ink testing data (i.e. ISO 2846) beyond colorimetry
- press or proof acceptance/conformance data reports
 - ISO 12647-7 evaluation
 - ISO 12647-2, -3 OK sheet report
 - ISO 12647-2, -3 print run variation
- calibration data
 - plating TVI curves
- spot colour process aims
- measurement geometry/environment information for soft proofing data
- gloss measurement data and associated metadata

It was agreed that we need to begin by identifying the data elements of each of the above that need to be included in ISO 17972, either as a core element or as a resource element. The following action items will facilitate that process.

Action Item 09-03: McDowell will identify all the data elements needed in ISO 17972 for the following: scanner target characterization data, characterization data sets, target measurement data, and target definition by July 31.

Action Item 09-04: Kraushaar will identify the data elements needed in ISO 17972 for press or proof acceptance/conformance data reports by July 31.

Action Item 09-05: Revie and Smiley will identify the data elements needed in ISO 17972 for spot color processing by July 31.

Action Item 09-06: McDowell will send request to WG 4 to address substrate properties, ink data and gloss measurement data requirements for ISO 17972 by July 31.

Action Item 09-07: Kraushaar and Luetkens will identify the data elements needed in ISO 17972 for soft proofing by July 31.

Action Item 09-08: Warter, Smiley and Mortara will identify the data elements needed in ISO 17972 for calibration and plating TVI curves by July 31.

Action Item 09-09: Cheydleur will consolidate the lists of data elements from Action Items 02-07 for discussion at the September meeting.

11 Proofing approval metadata – Review of issues and possible ways forward

Revie provided a status report on proof approval communication (WG2 N 1337). He noted that increasingly, work is approved in one location and printed in another. There needs to be a clear communication of what has been approved and the conditions under which it was approved. This would allow the receiver of the electronic file (e.g. the printer) to make a proof from the electronic file that will match the proof made by the originator of the file. It was noted that most vendors have a proprietary means of accomplishing this; however, it would be useful to have a "standard" means that can be used by everyone.

For hard copy approval (printing from a PDF file), the PDF document has an ID and the proof printed from that file has the same ID, thus connecting the two.

Certain info needs to be communicated on hard copy proofs to communicate what was approved. This allows the printer to make a proof himself, if he wishes:

- PDF identifier
 - Document ID
 - Print condition
- Proof production data
 - print medium (for gloss and fluorescence check)
 - printing inks
 - other significant proof production parameters (e.g. brand and model of production used, etc.)

Some felt that ISO 12647-7 provides enough tools to ensure the proofing done on each end of the process matches. This means that any system can be used to make the proof as long as the proof meets the requirements of ISO 12647-7. However, it was also argued that ISO 12647-7 is intended for evaluation of proofing systems, not for determining color reliability on a day-to-day business basis.

As a result of lengthy discussion, it was agreed that the committee does not support pursuing this in TC 130; however, it was agreed that ISO 12647-7 should be amended to include a requirement to add a PDF identifier including the document ID. In addition, this requirement should be included in ISO 12647-8, currently under development.

12 Review of possible new work

Revie presented the national body report from Japan (N 1334), on behalf of Urabe, which deals specifically with RGB workflow and the submission of RGB data. The need is to be able to repurpose images for various output conditions. There is currently no standard way to convert an image from camera raw to the desired output intent. It is difficult to repurpose images if it is not known how the image was created in the first place. In Japan, they have preliminary studies in process to identify standard adjustment curves for cameras and printers. This report shows preliminary results and identifies two candidates for standardized camera input data - Scene data (12 bits/comp. colorimetrically converted from RAW data) and Input data (8 bits/comp. output referred converted from scene data).

Concern was expressed that the more transformation points there are, the more opportunities there are for problems. The committee provided input for Revie to relay to the Japanese delegation.

It is anticipated that Japan will continue to provide information to WG 2 relating to this work, which may eventually lead to a new item of work.

13 Report on status of joint work with ISO TC 171**13a TC171/SC2/WG5 - ISO 19005-2 (PDF/A-2)**

McDowell reported that ISO 19005-2 is being prepared for CD ballot. This is of interest to TC130 since many documents will be put into this format for the purpose of archival storage, and we may have a need to print archived documents that exist in this format.

13b TC171/SC2/WG7 – ISO 32000 (PDF)

McDowell reported the ISO 32000-1 has been published. Work has begun on ISO 32000-2. TC130/WG2/TF3 has provided several inputs to TC171/SC2/WG8 for inclusion of capabilities to facilitate the PDX/VT work.

14 Report on status of CIE work impacting TC130/WG2

McDowell reported that CIE 14.3 (standardized method of computing tristimulus values from spectral data) was circulated to this committee, but no comments have yet been received. He reminded the members that if they have comments, they should send them to him by the end of this month.

15 Report of TC42 related technical work of interest to TC130/WG2**15a ISO/TC 42 JWG 20 – Digital Cameras**

Nothing new to report.

15b ISO/TC 42 JWG 21 – Densitometry

The ISO 5 series has been approved with editorial comments. It is being prepared for publication.

15c ISO/TC 42 JWG 22 – Color Management

Nothing new to report.

15d ISO/TC 42 JWG 23 – Extended color encoding

ECI RGB is being developed, but the work is still at the WD level. They are adding RIMM/ROMM extended encoding to provide additional headroom (space above reference white that you want to encode).

15e ISO/TC 42 JWG 24 – Revision of ISO 3664, Viewing conditions

The revision of ISO 3664 has been published.

15f ISO/TC 42 WG 18 – Electronic still picture imaging

Nothing new to report.

16 Liaison Reports (written reports requested)**16a International Color Consortium (ICC)**

Reported earlier in the meeting (Agenda Item 7c).

16b European Colour Initiative (ECI)

Meineke reported that ECI has developed two updated printing conditions for LWC paper, LWC improved stock and LWC standard stock. Characterization data for Paper Type 4 (uncoated white paper) has also been prepared. These are available on the ECI website and new profiles will be provided to the ICC registry.

ECI is also developing a new technical test form relating to PDF/X-4.

16c Ifra

No WG2-specific report.

16d Ecma

New document from Ecma was circulated earlier (N 1239)

16e WG 1

Barbara Horn, Convener of WG 1, reported that the four parts ISO 12637 that have been published are already out of date.

Kenneth Cowan noted that ISO is in the process of developing a Concept Database that will provide a means of managing a terminology database. This is expected to be available by the end of this year.

In the meantime, WG1 is beginning work to revise the contents of the four parts of 12637 so that we will be able to make a smooth transition to the ISO database when it is ready.

In the meantime, a matrix of each of the terms and its current definition has been prepared. This matrix will be placed in the TC 130 "drop box". A representative from each WG has been identified (McDowell represents WG2). This representative will be responsible for suggesting changes to the terms relevant to their Working Group, and will provide this information back to WG 1. This will be a continuing process that will provide the means to bring the standards up to date. An editor for each of the four parts of ISO 12637 has also been identified. This editor will be responsible for moving the update work along.

17 National Body Activities (reports invited)

See Agenda Item 12 for Japanese national body report.

No other national body reports were presented.

18 Future meeting plans

The following needs were identified for the Fall 2009 meeting of WG2 and its task forces, scheduled for the week of September 21 in Beijing, China:

WG2 – 1 day, including WG9

WG2 TF2 – 2 days

WG2 TF3 – will not meet in Beijing

19 Adjourn

The committee thanked NPES for their support of the meeting, and NPES and IDEAlliance for providing lunch. There being no further business the meeting was adjourned.