

# COMMITTEE FOR GRAPHIC ARTS TECHNOLOGIES STANDARDS

## Secretariat:

NPES The Association for Suppliers of  
Printing, Publishing and Converting Technologies  
1899 Preston White Drive  
Reston, Virginia 20191-4367  
Telephone: 703/264-7200  
Fax: 703/620-0994  
Internet: <http://www.npes.org>



**CGATS/SC3 N 1100R**  
**CGATS/SC3/TF1 N 177R**  
**CGATS/SC4 N 1013R**  
**USTAG/TC130 N 3084R**

## REVISED MINUTES

### JOINT MEETING CGATS SC3 – Metrology CGATS SC3 TF1 – Objective Color Matching CGATS SC4 – Process Control USTAG to ISO TC 130 WG 3 and WG 4

CGS Publishing Technologies  
Minneapolis, MN  
July 15-16, 2008

#### 1 Call to order

The meeting was called to order at 8:45 a.m. by Ray Cheydleur, SC3 Chair. The following were in attendance and introduced themselves:

Ray Cheydleur, Chair, SC3	X-Rite
Richard Goodman, Vice Chair, SC4	RMG Consulting
David McDowell, Chair, USTAG	NPES
Mary Abbott, Secretary	NPES
Heath Luetkens	CGS Publishing Technologies
Diane Kennedy	IDEAlliance
Larry Warter	Fuji
Chris Schowalter	GMG Americas
Greg Imhoff	Gripdigital
Eric Dalton	JUST Normlicht
John Iobst	NAA
John Seymour	QuadTech
Bob Chung	RIT
Steve Smiley	Vertis/FTA

#### 2 Review agenda

The committee reviewed the draft agenda, which had been distributed by e-mail prior to the meeting. Review of a TC 38 document relating to a data exchange format for colorimetric data was added as part of the discussion on CxF2.

The agenda was approved as amended.

### 3 Review minutes of last meeting

The committee reviewed the minutes of the March 2008 meeting, which had been distributed by e-mail prior to the meeting. The minutes were corrected to show Steve Smiley as being in attendance. The minutes were approved as corrected.

### 4 Review status of action items

The committee reviewed the action items from the last meeting, noting the status of each as follows:

AI #	Action Item	Status
SC4-07-26	<b>Smiley</b> and <b>McDowell</b> will begin work on the first draft of a TR for flexo characterization data.	An initial draft will be reviewed at this meeting.
SC4-07-27	<b>Smiley</b> will document the process used to obtain the flexo data set, and will provide a description of the white poly substrate used.	Complete. This information is included in the draft.
SC3/TF1-07-28	<b>Rich</b> will get more information on what has been done by SAE in the area of defining how to subjectively evaluate an image.	Completed. William Longley, Eastern Michigan University, indicates that they identified the need but were unwilling or unable to decide how to draft a standard set of terminology. In reviewing his notes that he uses in class, it is apparent that it is highly optimized to automotive finishes. So to create a standard terminology for graphic arts we would need to supplement some of what he has done with references to process printing. See the response from SAE in SC3/TF1 N 173.
SC4-08-01	<b>Abbott</b> will follow up with Rodriguez on the CGATS request for a white paper discussing the process used to develop the data for TR 003, TR 005 and TR 006.	Completed
SC4-08-02	<b>Abbott</b> will contact Steve Smiley and Bill Pope to ascertain the status of the flexo work relating to a proposed CGATS Technical Report.	Completed (SC4 N 1004). Smiley said there have been several print runs at Clemson to confirm the dataset before submitting. This dataset is included in the draft TR, which will be discussed during the meeting.

### 5 Report on status of request to Rodriguez for white paper re CGATS/SWOP Technical Reports

Kennedy reported the IDEAlliance Print Properties Committee, at their meeting this week, had reviewed a draft document that describes the methodology used in creating the CGATS/SWOP/GRACoL technical reports. Kennedy and Smiley reported that no significant technical edits were made; however, some edits were proposed. A revised document will be prepared and will be submitted to CGATS for review.

The CGATS committee felt it would be beneficial to review the initial draft at this meeting to determine if there were any questions or issues they wished to raise for consideration by the Print Properties Committee. The committee made some editorial comments, and requested that information on the 1D curves be added to the end of the document, rather than simply a pointer to a web site.

The committee agreed this is an excellent summary. Once the revised document is received from the Print Properties Committee, CGATS SC4 will again review it. When finalized, it will be published as a CGATS white paper, and will be posted on the CGATS portion of the NPES Standards Workroom.

The committee discussed whether there needs to be a white paper to discuss the principles behind the methods being used by IDEAlliance (common neutral print density curve from highlight to mid-tone essentially independent of max density) in creating characterization data. This is clearly a separate issue from the use of NPD in matching actual printing to characterization data. One concern is that the hypothesis of the highlight to mid-tone portion of the neutral print scale being consistent across the print processes is not clearly laid out in any document.

## **6 Report on status of FTA work to identify a white poly substrate as a reference for proposed CGATS work regarding measurement procedures for printing on white poly**

This work is superseded by the work on CGATS/FTA TR 007.

## **7 Report on status of FTA work in support of request to develop technical reports for flexo**

The committee reviewed the initial draft of CGATS/FTA TR 007, which had not been distributed to the committee prior to the meeting.

Edits were made to the document in response to discussion. Smiley was asked to provide several pieces of additional information for the document.

**Action Item SC4-08-03: McDowell** will prepare a revised document for distribution to the committee.

It was noted that as part of Technical Report we will need to decide whether it would be better to specify a backing that is very tightly controlled, or to see if a correction technique to correct data over a reasonable range of white backings will work. If the correction technique will work, it was felt that is probably a more reasonable approach.

Seymour proposed that we need to work toward a way to correct characterization data or data read from a proof where the substrates are different to allow them to be compared in a more valid manner. Two possible means are currently being compared. These are a variant on the tristimulus backing correction and a method based on [linear scaling using](#) CIE colorimetry. We need to test to determine which approach would be better.

One approach is to take a data set and apply both and see how different they really are. If the differences are large, pull proofs, and have experts visually evaluate them to determine which they feel are "better".

In the meantime, McDowell is doing calculations to try to determine differences.

**Action Item SC4-08-04:** Seymour will describe an experiment to determine the correlation between the backing correction methods and the colorimetry correction method, using papers over a wide range of  $L^*$ , for circulation to the committee. If the proposed experiment is supported by the committee, Seymour will conduct the experiment and provide results for discussion at the next meeting.

## **8 CGATS.17**

As a 2005 standard, CGATS.17 will be up for review next year, with action being required by May 2010.

It was noted that ISO 28178 is essentially identical to CGATS.17, with the exception of inserting ISO in the schema to replace CGATS. Therefore, if we don't want to change CGATS.17 substantially, we should consider national adoption of ISO 28178. However, if CGATS.17 is revised, we want to be sure to pick up any missing details from ISO 28178, such as any corrections.

The committee first reviewed responses to the comments received on ISO/DIS 28178 to identify the technical issues that may affect CGATS.17. In the process, several errors in both ISO 28178 and CGATS.17 were identified, and additional edits were made to the revision of ISO 28178.

As a result of this review and subsequent discussion, it was agreed that we should nationally adopt ISO 28178, retaining the CGATS.17 identification, noting it is an identical national adoption. Wording should be added to the national adoption that notes the use of CGATS.17 instead of ISO 28178 in the file header. Because work is still in process to finalize ISO 28178, it was felt that this recommendation should not be balloted to CGATS until the ISO standard has been published.

## **10 Review TC 130 activities that may impact CGATS SC3 and SC4**

### **ISO/DIS 13655, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images***

The DIS ballot on the revision of ISO 13655 closed on April 23, 2008. However, at the April meeting in Paris, TC130/WG4 only got through some of the comments. The editor took responsibility to go through rest of the comments and recommend resolution as he thought best. A revised draft (USTAG N 3052a) was sent to TC 130 WG 3 Experts for review prior to submitting it for publication. During this review, several significant technical issues were identified. As a result, it is believed the document needs to be discussed at the fall meeting in Amsterdam, and circulated for a second DIS ballot, which may be as short as 2 months.

The committee reviewed and discussed U.S. comments on the revised draft. These comments were sent to the document editor on behalf of the U.S. Experts (see TAG N 3052). The committee discussed the position that the U.S. should take during discussion of this document at the Fall meeting in Amsterdam.

One somewhat contentious issue that has arisen is the need for a measurement condition M0 to enable current spectrophotometers and colorimeters to comply with the standard if they do not have a UV cut filter. The U.S. is requesting that the standard include an M0 condition that assumes no OBA in the substrate and therefore the SPD of the illuminant is not an issue.

### **ISO 3664, *Graphic technology and photography — Viewing conditions***

The committee reviewed the consolidated comments that the US TAG to TC 130 and the US TAG to TC 42 submitted on ISO/DIS 3664 (USTAG N 3080). These comments will be provided to ANSI in early August, along with a vote to approve with comments, for submission to ISO as the U.S. vote.

### **ISO 17972 – CxF2**

At the last meeting of TC 130 WG 2, it was agreed to reactivate ISO/WD 17972 through the issuance of a NWI proposal. McDowell has an action item to request that the work relating to CxF be initiated at Stage 0 as ISO 17972.

Cheydleur, Smiley and McDowell agreed to prepare a sample CxF file containing multiple data sets relating to an ICC Profile for review prior to the next WG 2 meeting. To date, Smiley has provided data to Cheydleur, who had questions which were discussed during the meeting.

Cheydleur reported that TC 38 SC 1 (Textiles) has prepared a CD document entitled "Standard data format for colorimetric communication" which defines a very small XML format for data exchange for the textile industry. In previous discussions with TC 38 SC 1, it was agreed that because the TC 130 work is further along and is more extensive, a liaison would be formed with TC 38 to facilitate a "bridge" between these two work items, and allow the committees cooperate where there are common needs.

CGATS agreed with the TC130/WG2 recommendation that information should be included in ISO 17972 to identify what information is required for different types of exchange.

The committee reviewed the preliminary scope statement developed for the work by TC 130 WG 2, as well as the list of areas needing conformance subsets to be defined.

### **ISO 5 Series – Photography and graphic technology – ISO standard density measurements**

The CDs of the revision of Parts 1-4 of the ISO 5 series of standards were approved. New drafts of the documents will be distributed soon for committee review, followed by DIS ballot.

It was questioned if new discussions of densities based on XYZ should be addressed in ISO 5. It was suggested there is increasing acceptance of TVI that is "density-like", but not addressed in ISO 5. It was noted that the definition of XYZ TVI is currently in ISO 10128, but it was felt there is likely a more appropriate ISO document to address this issue.

**Action Item TAG-08-05:** Seymour will recommend where in the ISO documents a definition of XYZ TVI should best be addressed.

### **ISO 12647-7 Revision, CD 2, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 7: Off-press proofing processes working directly from digital data***

This document was balloted as a NWI and CD last fall before the ballot on the first edition of ISO 12647-7 closed and comments were resolved. Consequently, there were a number of issues with the draft. The NWI was approved, but there was not clear support to approve the draft as a CD. Therefore, the draft document was deemed to be approved as a WD for circulation as a CD, and it was agreed to prepare it for a second CD ballot. The comments on this first draft were reviewed very hurriedly in Paris and an editing committee (Revie and Kraushaar) were charged with resolving the comments and preparing a new document indicating the changes. This revised draft will be submitted via email for a 30-day review. Following that, Mr. Kraushaar (editor of ISO 12647-7) will prepare a revised draft to send to be circulated for a second CD ballot.

There were 47 U.S. comments on the draft document circulated for comment (USTAG N 2986). Many of these were not addressed in the new CD ballot which was circulated on May 23, 2008. However, a document titled "Editors Comments on Preparation for 2 CD 12647-7" (TC130 N 1298) did accompany the CD ballot and included the U.S. comments, with many deferred for discussion at the Amsterdam meeting in September.

There was general agreement among the U.S. Experts who responded to the ballot that the editor had not done an adequate job of resolving the comments but had rushed an incomplete document into ballot.

The first, and key, U.S. comment on this new CD is: "This CD is premature. Comments 5, 6, and 7 on the first CD (See Resolution of comments contained in TC130N1297) refer to action items of the meeting of WG3 in Paris. The subsequent E-mail discussion and the editor's report re the US comments on the proposed draft (TC130N1298) defer many items with the notation "Postponed to CD ballot discussion"." Our recommended action is to "Withdraw this CD until a better agreement on key issues is achieved."

The committee discussed the approach of this standard at length and also reviewed the preliminary U.S. comments. It was agreed that all unresolved comments from previous U.S. ballots and draft document reviews should be included in the U.S. response to this ballot. In addition, comments should be added to:

- define "digital printing substrate"
- in 4.2.2.1: add pointer to ISO 13655 for definition of metric hue difference

**12647-3:2005 *Graphic technology — Process control for the production of half-tone colour separations, proofs and production prints — Part 3: Coldset offset lithography on newsprint***

This standard is undergoing systematic review. The US TAG ballot closed July 11; the ISO ballot closes September 15. The committee reviewed the comments received (USTAG N 3085).

It was agreed that the U.S. should vote to reaffirm the standard. However, we should also state that if it is decided to revise the standard, the comments submitted by the US should be considered.

**ISO 15076-1:2005 *Image technology colour management -- Architecture, profile format and data structure - Part 1: Based on ICC.1:2004-10***

This standard is undergoing systematic review. The US TAG ballot closed on July 11 and the ISO ballot closes September 15. It was agreed that the U.S. should vote to reaffirm. The next version of the ICC specification is in the process of being finalized, and a clear decision has not yet been made by ICC whether to put this revision forward as Part 2 or as a revision of Part 1.

## **11 Activity status reports**

### **11a SWOP**

Smiley reported SWOP is still evaluating white points on TR 003 and TR 005. SWOP has posed questions to the IDEAlliance Print Properties Committee on how this issue can be addressed.

### **11b SNAP**

SNAP is charged with taking the IFRA dataset and renaming it SNAP 2007.

NAA is no longer going to function as a managing partner for SNAP, but will continue to participate.

The website "SNAPquality.com" has functionally replaced the SNAP portion of the NAA website.

### **11c GRACoL**

GRACoL is handing off the G7 work to the IDEAlliance Print Properties Committee. GRACoL is having issues with the white point based on the increasing level of brighteners found in many substrates.

### **11d FTA**

Smiley reported that FTA did some testing relating to backing for white poly. They provided their results to McDowell. In reviewing their data and the testing process, CGATS SC4 decided to do additional work in this area.

### **11e IDEAlliance Print Properties Committee (PPC)**

Covered by other reports. PPC will meet November 10-11 at RIT, immediately preceding the next CGATS meeting.

### **11f Ghent Working Group**

A major focus in the Ghent Working Group is methods of including metadata in the PDF/X file that describes the conditions used when reviewing and accepting the proof of the job file. This needs to include information about either soft or hard proofing and to include things such as viewing conditions, proof materials, quality of match, etc. Annex B of the revised version of ISO 12647-7 is, in part, a guide for the information that might be included.

### **12 Other business**

No other business was identified.

### **13 Date and location of next meeting**

The next joint meeting will be held Wednesday-Thursday, November 12-13, at RIT in Rochester. The IDEAlliance Print Properties Committee will meet the two days prior to the CGATS meeting.

Quad/Tech has offered to host the spring 2009 meeting at their Sussex location. A date will be determined at the next meeting.

### **14 Adjournment**

There being no further business, the meeting was adjourned. The committee expressed their appreciation to Heath Luetkens and CGS for hosting the meeting.