



[ISO/TC 130](#)

Graphic technology

E-mail of Secretary: [karin.winkelmann@din.de](mailto:karin.winkelmann@din.de)

Secretariat: DIN

**WG 3 Minutes Fort Worth May09**

Date of document	2009-06-04
Expected action	Info
Source	ISO/TC 130/WG 3

**NOTES FROM THE 37<sup>th</sup> MEETING OF  
ISO TC 130 WG 3  
PROCESS CONTROL AND RELATED METROLOGY  
FORT WORTH, USA 2009-05-18/20**

**1 Opening of the meeting**

The meeting was called to order at 09:00 h by Mr. Andreas Kraushaar, convenor. He thanked NPES for hosting the meetings and NPES and IDEAlliance for sponsoring the meals. Mr. Warter was thanked for taking the minutes.

**2 Roll call of experts and observers (ISO/TC130/WG3 N 642)**

A roll call of experts was held. The scanned attendance list is given in Annex 2 to these minutes.

**3 Review and approval of agenda**

Mr. Kraushaar discussed the agenda, (ISO/TC130/WG3 N 788). With some re-arrangement as represented in these minutes, it was unanimously approved.

**4 Review and approval of the notes from the prior meeting (N 752)**

Mr. Kraushaar thanked Mr. Warter, for his help in preparing the notes of the meeting. They were unanimously approved.

**5 Identification of new Documents**

Since the Amsterdam meeting the following new documents were identified:  
See Annex 1

**6 Report of the convenor on the status of advanced work items**

(N 787)

Mr. Kraushaar reported that ISO 12218 and ISO 12645, were confirmed. Others were identified for work during this meeting. Mr. Smiley reported that he had input for 12647-6 at this meeting. ISO 13655 has been edited by JWG 8 and is about to be finally published. There is a request for inclusion of a D65 condition from the paper representatives that needs to be resolved in future meetings. Mr. McDowell reported that all of ISO 14981 have been incorporated into the ISO 5 series and suggested that a plenary resolution to withdraw the standard should be drafted by Mr. Kraushaar. Mr. McDowell reported that ISO 10128 is ready for publication.

**Action item 09/01:** Mr. McDowell will review the needs for update 13656 in light of the revised ISO 5 series and make a proposal in Beijing.

**Action item 09/02:** Mr. Kraushaar will draft a plenary resolution to withdraw 14981 in Beijing.

The committee strongly recommended that all members should review their local standards for compliance to the revised ISO 5 and related measurement standards.

## 7 Review of Amsterdam action items

Action Items from the previous meeting, WG3 N 752, were reviewed. The status is as follows (update from new action items list – o(open) and c(closed)). The new action items (09/xx) as well as the existing open ones are listed under TOP 11.

08/12 The committee discussed the future of viewing in proofing to print match and decided that the present action item is closed but new items will be required.

08/17 Mr. Smiley reported that there is agreement that there is a need for better definition. The action item has been closed.

08/27 Mr. Lanat tabled a catalogue from his company specifying specific printing conditions related to the pertinent paper shades. The action item has been closed.

08/29 Mr. Lanat referenced in addition the ISO standards ISO 11476 (Note 10.3), ISO 2470-2 (Note 8.4) and ISO 11475 (Clause 10.3).

In the light of the heated discussion related with optical brighteners and the resulting problems and challenges for colour management, process control and quality assessment another action item has been issued.

**Action item 09/03:** Mr. Lanat to write a white paper on the problems with UV and brightened papers that will serve as the basis for future actions especially a joint working group with TC 6 and TC 42.

<b>No.</b>	<b>Docum.</b>	<b>Who?</b>	<b>What?</b>	<b>C, O</b>
07/11		McDowell, Rich, deGroot, Widmer, Khoury, Revie, Kraushaar	To collaborately work on a proposal to create a new document (possibly a part of 12647-x) that will be forward looking and provide tools and definitions to support process control and electronic data manipulation that is printing process agnostic.	C
08/11	Fluorescence / Illuminance	Lanat, Cheydeur, Rich, Green	Define UV content for a standard (default) proof to print comparison viewing condition that can be achieved practically in measuring equipment.	C
08/12	Improved monitor proofing	Kraushaar, Revie	Contact those companies involved in advanced monitor proofing to determine whether there is any interest in standardising support for viewing of print media that include fluorescence. It was reported that the concern is not present when the soft proof is to be made.	C
08/14	ISO 12647-7	Kraushaar, Egawa, McDowell	To resolve the comments of the ISO/NWIP 12647-7 revision and propose the WG a way forward (corrigendum, amendment, revision)	C
08/15	ISO 12647-7/8	Kraushaar, McDowell, Warter, Ito, Egawa	To create a drafting committee for a potential part 8 facilitating the Validation Print	C

08/16	ISO 12646	McDowell, Winkelmann	To prepare the amendment (US comments – N 695) to ISO 12646	C
08/17	ISO 12647-6	Smiley	To ask Adobe for information for defining spot colours (overprint model) as defined (or planned) in ISO 32000-1	C
08/18	ISO 12647-6	Smiley, Cheydleur	To determine how the proposed spot colour definitions (spectral measurement of tints on white and black substrates) facilitating CXF	O
08/19	ISO 12647-6	Smiley, Kraushaar	To spec out colour tolerances (allowing for chroma/hue angle variances) for the colour definitions on flexo printing solid coloration tolerances	O
08/20	ISO 12647-6	Smiley, Claypole	To prepare a working draft from the proposed revised version of 12647-6 and circulate to the members of WG3 for the next meeting the define hue without specific L*a*b*	O
08/21	ISO 12647-2	Dresch, Warter	To propose grey balance criteria and tolerances in light of 12647-2	C
08/22	ISO 12647-2	Dr. Bestmann, Homann	To work on and adjust the TVI-curves in 12647-2 and propose a revised set	C
08/23	ISO 12647-2	Homann, Warter, Hossli, Meinecke	To Compare the LWC press runs (ECI) with SWOP3 char.-data	O
08/24	ISO 12647-2	Homann, Warter	To analyse FOGRA40, 41 and SWOP5 with respect to (future) ISO paper type	O
08/25	ISO 12647-2	McDowell, Warter, Lanat, Dr. Bestmann, Khoury, Thees, Revie, Egawa	Start a new set of document(s) that is not related to process control (process agnostic). It should be focussed on appearance e.g. via characterization data. But provisions on how to relate it to current or future process control standards should be provided. This is connected to action item 07/11.	C
08/26	ISO 12647-2	Kraushaar, Leutkens, Bruno, deGroot, Hossli, Lanat, Hannemann	To propose a method of specifying proof to print paper (guidelines for specification) based on ISO 12647-7	O
08/27	General	Hossli, Hannemann, Lanat	To create/provide a correspondence list of paper grades and associated characteristic data sets e.g. from the ICC web site	C
08/28	Paper specification	Hannemann, Widmer, deGroot, Meinecke, Wales, Hossli, Lanat, Bertholdt, Beckmann	To evaluate /collect /update a list of paper parameters (least amount) that needed to be incorporated into a paper categorization.	C
08/29	Paper specification	Hannemann, Lanat, Hossli	To propose a standardized method of measuring and documenting the amount of OBA present in a substrate.	O
08/30	ISO 12647-3	Rich, McDowell, Beckmann, Thees	To review changes and make recommendations as to whether to amend or correct the document	O
08/31	Certification	Otero	To submit the findings of the task force on the harmonization of certification efforts to the full committee.	C

Table 1: Amsterdam Action items.

## 8 Review and discussion of standards and current work items

### 8.1 ISO 12646 and ISO 12646/Amd1,

#### **Graphic technology – Displays for colour proofing – Characteristics and viewing conditions (Deadline: 2009-04-29)**

Discussion of results on Amendment 1 (N780; N781; N772; N791)

Mr. McDowell reviewed the history of the ballot effort. There was much confusion as to whether this was a technical ballot which apparently negated the plenary resolution. Mr. Kraushaar repeated the statement of the Paris meeting that a major revision of ISO 12646 is necessary. Recent studies at Fogra have confirmed that requirement. He reported a potential conflict between the standards “minimum requirement” approach and the high quality proofing criteria to be added via the amendment (US input) in the standard. Mr. McDowell stated that the proposed changes in the specification (CIEDE 2000 tolerances) make the standard applicable. The committee discussed the relative scopes of this document and the proposed monitor proofing standard (new work item). A compromise was found by accepting the US input with a slight correction of an additional criteria for the amendment and to start an immediate revision as soon as the amendment has been accepted.

1. Amend 12646 to include the present proposal plus change third paragraph of 4.1.1 to "In the contrast inversion test, for a given RGB drive state, and for all points on the display, the luminance at angles off the DVD should not exceed the luminance at the DVD."
2. Start new complete revision of ISO 12646 after completion of ballot on #1

Working group 3 will inform the secretariat that their interpretation of the ballot results on 12646 is that, with the modification of the German comment, the standard should go to ballot as a DIS.

**Action item 09/04:** McDowell to prepare the DIS ballot for the amendment to 12646 for forwarding to ISO by the secretariat.

Mr. Luetkens gave a presentation (N 800) on the monitor certification programs of Fogra and IDEAlliance:

1. He identified pre-test as an important criterion added by Fogra.
2. Uniformity patch size is difference.
3. Fogra has a viewing cone analysis test for proper viewing.
4. Measurement uses different devices. (a tele-spectroradiometer for the simulation and contact measurements for the driving).

He reviewed the tolerances. In addition Mr. Kraushaar reported on a current research project at Fogra mainly edited by his colleague Peter Karp (N 805). He stressed the need to set a pre-test tolerances for each display subject to inclusion into a combination (display, print condition, measurement device viewing booth and software) to be certified. Mr. Revie pointed out that there is a Japanese standard for the viewing condition environment for monitor to hard copy proof comparison. Mr. Kraushaar described the procedure of the FograCert Softproofing System certification namely the prior scrutiny (pre-cert) of the display and the viewing cabinet and the assessment at the vendors premise. All information can be found at the Fogra webpage: <http://fogracert.fogra.org/index.php?menuid=116>. He stated that they have demonstrated a good correlation between viewing and measurement with the viewing cone analysis.

The new standard entitled “Graphic technology- Requirements for colour proofing systems using electronic displays” should be registered as a stage 0 project.

**Action item 09/05:** The secretariat and Mr. Luetkens to requests ISOCS to register a stage 0 project for development of a standard entitled.

The committee agreed to a name, “Requirements for colour proofing systems using electronic displays”. The committee discussed the definition of a softproof as submitted by Mr. Kraushaar. “Visualization of colour image data, using a monitor or projector, with the intent of synthesizing the colour appearance under a defined illumination and viewing condition. Note: Subsets can include contract and or content applications”

The concept of the new standard has been discussed and agreement was reached to include:

1. What a soft proofing system comprises: display, viewing environment, measurement device, application, printing condition to be simulated.
2. Conformance – “yes or no” – no scoring system
3. Requirements of components (pre-test): viewing cabinet – ISO 3664; display ISO 12646;
4. Requirements of the entire system:
  - a. display drivers: uniformity; target gamma; smoothness; profile accuracy; max contrast ratio; gamut
  - b. Simulation: contrast ratio, CCT, luminance, grey balance, colorimetric accuracy
  - c. Visual assessment
  - d. Metrology: usage of a tele-spectroradiometer

Mr. Smiley gave a presentation on the variables and influential parameters of viewing such as the surround.

**Action item 09/06:** Mr. Luetkens will draft a document to reflect this discussion as the basis for the new standard on Requirements for colour proofing systems using electronic displays.

### 8.3 ISO/DIS 13655

#### **Graphic technology – Spectral measurement and colorimetric computation for graphic arts images (Deadline 2009-04-13)**

Discussion of results on second DIS ballot (N 779;N778)

Mr. Kraushaar updated the group about the finished JWG8 meeting. Consensus has been reached about the comments of the second (approved) DIS ballot. The final document will be circulated among the JWG8 group via email and than send to ISOCS for final publication.

Mr. Lanat gave a presentation on a proposal for a new measurement condition M4 (N 814). He stated that the present conditions are lacking to properly identify papers with high OBA's and that presently 13655 cannot be used by paper manufacturers to test papers.

Mr. Lunat proposed to insert a paragraph with this directive in the document. The committee discussed whether this would help the users or just the paper companies. The question is whether a measurement match at conditions that do not reflect “normal viewing conditions” helps. Mr.

Kraushaar reminded the committee that it is too late to insert it in the present ballot. Dr. Rich cited a PHD-thesis that indicated that the further the measurement conditions are from the desired viewing conditions in UV the higher the resulting visual error will be. (Chong/Billmeyer “Visual evaluation of daylight simulators for the colorimetry of luminescent materials” and “Calculation of the spectral radiance factor of luminescent samples.”)

Mr. Kraushaar summarized the committee discussion that such an inclusion need a scope change as well as supporting material and substantial discussion within the working group. In light of the permanent discussion about the right handling of substrates with OBA with all its problematic aspects more solutions and best practices needs to be available before potential solutions might be incorporated into an ISO-standard. The Action item 09/03 serves as an ideal basis for such a discussion.

#### 8.4 ISO12647-7

##### **Graphic technology – Process control for the manufacture of half-tone colour separation, proofs and production prints – Part 7: Off-press proofing processes working directly from digital data**

(N752; N751) – Discussion of future course of action

Mr. Kraushaar gave a history of “digital printing – where do you go” from an article he authored (N 803). Generally contract proofing has been successful and is internationally well established. The problems and concerns come in trying to segment the market into various levels of proofing and to production printing. Proofing is already a break in the 12647 series philosophy as it is a process agnostic simulation not a production reference. But, it defines a visualization of data reproduced by a defined set of characterization data of whatever printing condition. When considering digital production printing by itself, it is hard to integrate a process agnostic system into the structure of 12647 since it is no longer governed by a few primary process parameter such as paper category, screening, print sequence etc.. He proposed a systematic approach to developing a new process agnostic standard guide by different use cases as proposed e.g. by the Fogra digital printing working group.

Mr. Lanat gave a presentation on the effect of OBA’s on proofing.

Minor comments concerning ISO 12647-7, e.g. raised by the CD ballot, haven’t be addressed so far since the criteria for the Validation Print have been decided to become Part 8 of ISO 12647. Anyhow due to their overall marginal character and in the light of a stable and reliable ISO standard (with the least amount of amendments possible) it was agreed to keep the published and resolve the existing and coming concerns as soon as ISO 12647-8 has been published.

**Action item 09/07:** Mr. Warter to start to develop a list of concerns/potential changes for a revision to 12647-7 (e.g. margin comments, comparable fluorescence for proofing and print papers, a replacement metric for delta H)

**Action item 09/08:** Dr. Bertholdt, Mr. Lanat to develop a program in WG4 to aid in addressing the testing of proofing papers and their effect on the total visual proof to print match.

## 8.5 ISO/NWIP 12647-8

### **Graphic technology – Process control for the manufacture of half-tone colour separation, proofs and production prints – Part 8: Validation print processes working directly from digital data (tentative title)**

Discussion of the document to be sent to ISOCS for ballot for CD (N731, N732).

Mr. Warter led the discussion. Mr. Kraushaar gave a short history of the document and the combination with and subsequent separation from part 7. He proposed that the committee discuss the philosophy of the standard, some general overall changes and then changes resulting from the resolution of comments of the combined document. Following Mr. Warter gave a presentation from Mr. Ito (N 803) that reviewed the marketplace intent of ISO 12647-8. In terms of philosophy, a part of the committee continued to be concerned that part 8 would undermine part 7 either in terms of the marketplace addressed and/or the process definitions. Mr. Kraushaar stated the Part 8 has been embraced by the industry mainly by the digital printing systems manufacturers since this is the first “ISO-quality” in that realm. Surely the industry needs a standard dedicated for digital production printing.

The agreed on goal was to make sure that it was distinguishable from the very tight control of part 7 without being too loose and allowing the certification of systems that were out of control. After much discussion, the scope was changed accordingly (N 816). General changes included the use of the term “Validation Print” throughout and properly defined in section 3, elimination of halftone requirements and other aspects that wrongly imply too high quality for this proofing application and referencing the major market application in design. The resolution of comments was addressed. The rub test term was clarified to a colorant stabilization period and alternate tests were addressed. The test and the annex were made informative until better correlation to other tests has been established. Most of the proposals resulting from the resolution of comments were included. The committee reviewed the plenary resolution 344 and determined that the next step was to go immediately for ballot as NWI Proposal with the accompanying draft for approval as CD.

**Action item 09/09:** Dr. Bohan will compare the 12647-7 “rub test” to other tests available in the U.S. with respect to toner based printing systems.

**Action item 09/10:** Mr. Kraushaar will send test kits to Dr. Bohan and to Mr. Mortara.

**Action item 09/11:** Mr. Warter will prepare the document 12647-8 for ballot as a CD.

## 8.6 ISO 12647

### **Graphic technology – Process control for the manufacture of half-tone colour separation, proofs and production prints**

Discussion of ISO 12647-1, 12647-2, 12647-3 (systematic review)

Mr. Kraushaar introduced the nature of the importance and the wide acceptance of those standards. Based on the action item 08/21 Mr. Pate gave a presentation (N 797) reflecting his and Mr. Warter’s recommendations for adjusting colour management for changes in base colour. He reviewed the definitions of gray balance. He explained the problems related to any scaling method and his analysis. The two proposed methods a\* and b\* scaling with L\* (with 85 % adaptation) and the backing adjustment method give excellent agreement for practical use. The group discussed the findings. It was agreed that those findings should be subject for inclusion into a coming revision.

## 8.7 Presentations on ISO 12647-1,12647-2,12647-3 – NN (bvdm/ECI/FOGRA/IFRA) (N798)

Mr. Kraushaar introduced the topic. It could be stated that due to the great acceptance of ISO 12647-1/2/3 there are needs for updating the standard with respect to current technologies in the printing industry. At the beginning four presentations have been presented.

1. Mr. Meinecke presented a general paper about the concept behind ISO 12647 focussing on the general applicability for industrial production (N 809). He then gave a presentation introducing the results of an ongoing project for a complete revision of ISO 12647-1/2/3. (N 798). He listed the reasons for change and proposed a concrete way forward including an updated paper categorization schema and invited anyone to discuss, comment and to be involved.
2. Mr. Smiley reported on the work of the IDEAlliance Print Properties Committee (N 806). They have developed characterization data sets based on near neutrals and standard aim points. The resulting sets are uniform and tend to mirror similar efforts in Europe. They also are compatible with none offset printing, and should facilitate a process agnostic solution albeit subject to the idiosyncrasies of the various processes like flexo.
3. Mr. McDowell gave a presentation concerning a future version of ISO 12647 (N 810). He opt for leaving the basic 12647 family in place with minimal change for legacy purposes, and that future efforts should be more process agnostic with: principles and methodologies as in 10128, reference gamuts, the communication of spot colours, tools to adjust characterization data to facilitate cross media applications (black/white point compensation, UV/OBA analysis etc.) and general recommendations important to the printing process.
4. Mr. Thees gave a presentation on the coldest standard (N 811). He reviewed the history, demands of the market and future needs. He noted many of their requests mirror the US requests. He opted for limited goals, and process tools.

Mr. Mortara reported that there is limited use of 12647 in Brazil. He questioned the rate of change needed for the various options.

The committee discussed the relative merits of the various approaches controversially. Mr. Revie suggested that the Meinecke approach be adapted to include the gray balance method as a means to achieve the same results. After a country caucus, the committee agreed to both a short term revision of 12647 and a long term solution. We will begin a preliminary work item on all three parts and issue an internal committee ballot along with the proposed documents. If possible this will be a two month ballot.

**Action item 09/12:** Mr. McDowell to prepare a draft of a process agnostic standard for process control to be evolved from 12647 for the Beijing meeting.

## 8.8 Discussions of ISO 12647-4

- open results on systematic review (N 786)

Mr. Kraushaar introduced the topic despite his computer being out of commission. Mr. Meinecke gave a presentation on gamut type 2 based on PSR test print series (N 808). They ran LWC plus, LWC standard and SC papers. He presented the results and proposals to 12647-4 and 2846-3. Mr. McDowell commented that the U.S. would like to see combined ink and paper results to be able to

comment on it. After that, the U.S. would agree to a potential revision to the numbers now that there is good input.

**Action item 09/13:** Mr. Meinecke and Mr. Bertholdt will supply the ink and gamut data for the new proposed gamut 2 data for revisions to 12647-4 and 2846-3 to WG3 and WG 4.

## 8.9 ISO 12647-6:2006 – Flexographic printing

Discussion of a revision (under SR, deadline: 2009-06-15)

Mr. Smiley gave a presentation on a draft including proposed revisions (N 801). He commented that the old TVI tables were not accurate for the multitude of stocks covered by the standard and have been removed in the new document. These “shall” be traded individually by members of the workflow. The scope includes both packaging and publication printing. Spot colour and brand colour definitions are included. The committee discussed the lower level of constraint in this document as compared to the offset versions. Hue angles for process colours are included. There is a proposal for a simulated colour bar from the image and run tolerances. They need to refine the minimum requirements for a data set. A new work item will be initiated.

Anyhow Mr. Kraushaar commented that these changes constitute a paradigm change since the process is not anymore governed by primary process parameter such as substrate categories, anilox rollers and so on. The only process dependent requirement seems to be the imaging process itself while the remaining parameters are subject to be arbitrarily modified in order to achieve the given appearance (to be defined by a set of characterization data). This tremendous change departs from the underlying structure stipulated in ISO 12647-1 and must be addressed in the new standard.

**Action item 09/14:** Mr. Smiley, Mr. McDowell and Mr. Barros to provide a revised draft of the preliminary document (N 801) with introduction and comments included to the Secretariat for submission as a NWIP by June 15.

## 8.10 ISO/TS 10128

### Graphic technology – Methods of adjustment of the colour reproduction of a Printing System to match a set of characterisation data

Mr. McDowell reported that the DIS ballot is complete. Document N 761 is the resolution of comments. Changes were editorial and no major changes were made. The final publication is eminent. Mr. Lanat commented that it would be preferable for the standard to separate tone value increases to paper and press related (N 815). The committee assured that this document in no way reflected adversely on paper quality but simply refer to the relation of the tone value of the print and in the data file (tonality). For that reasons the influences leading to different tonalities (“TVI-curves”) are intentionally not covered. Anyhow for process control they are of high importance.

## 9 Supporting Activities, TG, task forces

### 9.1 Report on progress concerning certification according to ISO 12647-2

Mr. Meinecke reported about two different groups active in the field of collecting information about different certification schemas (ISO 12647-2). WG3 members comprise one group and another group is working with Intergraf, the International confederation for printing and allied industries:

([http://www.intergraf.eu/AM/Template.cfm?Section=ISO\\_Certification1&Template=/CM/HTMLDisplay.cfm&ContentID=2345](http://www.intergraf.eu/AM/Template.cfm?Section=ISO_Certification1&Template=/CM/HTMLDisplay.cfm&ContentID=2345)).

Mr. Mortara reported that he had not gotten this information and he would like to get involved. My. de Groot stated that ISO does not recognize any certification. Mr. Hossli raised the point that certifications are important ("campaign problem").

**Action item 09/15:** Mr. Meinecke to include the full WG3 TG1 group on Intergraf reports.

### 9.2 Categorization/characterization of papers ISO 12647 (WG3/TG1)

Dr. Berthold reported and referenced the previous days discussion on paper in the revised 12647 and in WG4. The committee discussed the scope of the taskforce. Mr. Revie complimented the reported results (papers with associated information about the pertinent characterization data) and asked how to further the effort. Mr. Hossli mentioned that print relevant data is available. He explained the publication relating paper specifications ("Papierkennwerte") to printing results and plans for the future. The document will be translated for the committee.

## 10 Liaison matters

### 10.1 ISO/TC42/JWG 21 (ISO 5 series)

Mr. McDowell reported that the ballot closed and only editorial changes were requested. The document will be revised and sent out for FDIS.

### 10.2 ISO/TC42/JWG 24 (ISO 3664)

Mr. McDowell reported that the standard is now published.

## 11 Summary of Fort Worth action items (and remaining open)

<b>No.</b>	<b>Docum.</b>	<b>Who?</b>	<b>What?</b>	<b>C, O</b>
08/18	ISO 12647-6	Smiley, Cheydleur	To determine how the proposed spot colour definitions (spectral measurement of tints on white and black substrates) facilitating CXF	O
08/19	ISO 12647-6	Smiley, Kraushaar	To spec out colour tolerances (allowing for chroma/hue angle variances) for the colour definitions on flexo printing solid coloration tolerances	O
08/20	ISO 12647-6	Smiley, Claypole	To prepare a working draft from the proposed revised version of 12647-6 and circulate to the members of WG3 for the next meeting the define hue without specific L*a*b*	O

08/23	ISO 12647-2	Homann, Warter, Hossli, Meinecke	To Compare the LWC press runs (ECI) with SWOP3 char.-data	O
08/24	ISO 12647-2	Homann, Warter	To analyse FOGRA40, 41 and SWOP5 with respect to (future) ISO paper type	O
08/26	ISO 12647-2	Kraushaar, Leutkens, Bruno, deGroot, Hossli, Lanat, Hannemann	To propose a method of specifying proof to print paper (guidelines for specification) based on ISO 12647-7	O
08/29	Paper specification	Hannemann, Lanat, Hossli	To propose a standardized method of measuring and documenting the amount of OBA present in a substrate.	O
08/30	ISO 12647-3	Rich, McDowell, Beckmann, Thees	To review changes and make recommendations as to whether to amend or correct the document	O
09/01	ISO 13656	McDowell	Review the needs for update to 13656 in light of the revised 5 series and make a proposal in Beijing	
09/02	ISO 14981	Kraushaar	draft a plenary resolution to withdraw 14981 in Beijing	
09/03	ISO 12647	Lanat	Write a white paper on the problems with UV and brightened papers that will serve as the basis for future actions especially a joint working group with TC 6 and TC 42.	
09/04	ISO 12646	McDowell	Prepare the DIS ballot for the amendment to 12646 for forwarding to ISO by the secretariat	
09/05	ISO 12646	Secretariat, Luetkens	Requests ISOCS to register a stage 0 project for development of a standard entitled Graphic technology-Requirements for colour proofing systems using electronic displays	
09/06	ISO 12646	Luetkens	Draft a document to reflect this discussion as the basis for the new standard on Requirements for colour proofing systems using electronic displays	
09/07	ISO 12647-7	Warter	Start to develop a list of concerns/potential changes for a revision to 12647-7 (e.g. margin comments, comparable florescence for proofing and print papers. ) especially including a replacement metric for delta H	
09/08	ISO 12647-7	Bertholdt, Lanat	Develop a program in WG4 to aid in addressing the testing of proofing papers and their effect on the total visual proof to print image match.	
09/09	ISO 12647-7	Bohan	Compare the 12647-7 rub test to other tests available in the U.S.	
09/10	ISO 12647-7	Kraushaar	Send test kits to Dr. Bohan and to Mr. Mortara	
09/11	ISO 12647-8	Warter	Prepare the document 12647-8 for ballot as a CD	
09/12	ISO 12647	McDowell	Prepare a draft of a process agnostic standard process control to be evolved from 12647 for the Beijing meeting	
09/13	ISO 12647-4, 2846-3	Meinecke, Bertholdt	Supply the ink and gamut data for the new proposed gamut 2 data for revisions to 12647-4 and 2846-3 to WG3 and WG 4	
09/14	ISO 12647-6	Smiley, McDowell, Barros	Provide a revised draft of the document (Flexo N801) with introduction and comments included to the Secretariat for submission as a NWIP by June 15	
09/15	ISO 12647-2	Meinecke	Include the full WG3 TG1 group on Intergraf reports	

**12 Requirements concerning the future Beijing meeting**

2.5 days (preferably 3) are needed and no overlap with WG 2 or WG4 is anticipated.

**13 Any other business**

Dr. Bertholdt reviewed Fogra work on spot colours (N 804). They compared inks to colour book goals (as defined by books) and, while most results were consistent, some results were large for many reasons. He also plotted dot gain and got mixed results. (25-45 % at 40%).

**14 Adjourn**






















Mr. Kraushaar thanked the participants for their contributions, Mr. Warter for taking the minutes, NPES and IDEAlliance for hosting the meeting and providing the meals and closed the meeting. He wished anyone a safe trip home.

## Annex 1

### Identification of new Documents

Since the Amsterdam meeting the following new documents were identified:

#### ISO/TC 130/WG 03 "Process control and related metrology" N-Documents

Type	N Number	Title (Description)	Exp. Action	Due Date	Version Date
	816	1st WD ISO 12647-8 LWater edits	Info	None	2009-05-21
	815	Present Lanat Hossli Paperdam contribution TS10128 Ft Worth WG 3 Minutes	Info	None	2009-05-21
	814	Present_LANAT_Proof papers_M4_cond_Agenda_8-3_Fort Worth_WG3	Info	None	2009-05-21
	813	NOTE: RESERVED N-NUMBER without document, please "add file" as soon as available WG3 Minutes Fort Worth	Info	None	None
	812	Action Items Fort Worth Mai 09  	Info	None	2009-06-03
	811	Present Thees IFRA 12647-3 Modificationrequest RT	Info	None	2009-05-21
	810	Present McDowell Replacement of ISO 12647 Series	Info	None	2009-05-21
	809	Present_Meinecke_ISO 12647 for industrial production 8_4	Info	None	2009-05-21
	808	ISO 12647-4 gravure new input 8.6	Info	None	2009-05-21
	807	ISO12647-8 use-case	Info	None	2009-05-21
	806	Present Smiley ISO profile US print properties datasets	Info	None	2009-05-21
	805	Report on Fogra SoftproofingCertification Kraushaar	Info	None	2009-05-20
	804	Presentation Bertholdt Spot colours WG 3 FtWorth	Info	None	2009-05-20
	803	Digital print where do you go Kraushaar	Info	None	2009-05-20
	802	Luc LANAT Dallas Proof papers TC 130 WG 4 Minutes	Info	None	2009-05-20
	801	1st_Working Draft_ISO_12647-6	Info	None	2009-05-21
	800	Monitor Certification	Info	None	2009-05-19
	799	TC130N1454 1st Draft Agenda 23rd Plenary Beijing	Info	None	2009-05-18
	798	Proposal_rev ISO_12647_parts_1-3_meeting_FtWorth V2.4	Info	None	2009-05-18



DE sign and give to the  
 printed names in alphabetical order  
 ISO 639-1  
 All other parts of the meeting are GOST

ISO/TC 130/WG 3 Process control and related metrology

**Attendance List**

Attendance List of the ISO/TC 130/WG 3 Meeting. Fort Worth, 2009-05-19/21

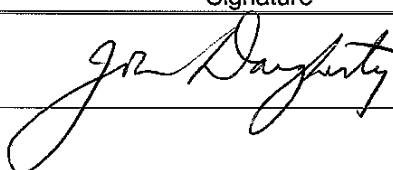
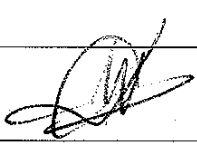
Name	Country	Signature
Kraushaar, Andreas	DE	
Winkelmann, Karin Dipl.-Ing.	DE	
Abbott, Mary	US	
Bailey, Martin	GB	
Barros, Gustavo Gil	SE	
Belz, Harry	DE	
Bertholdt, Uwe Dr.	DE	
Bestmann, Guenter Dr.	DE	
Birkett, William B	US	
Bohan, Mark	US	
Carnelli, Carlo	IT	
Cheydleur, Raymond	US	
Chop, Kevin	US	
Claypole, Tim C. Dr.	GB	
da Costa P. N. da Luz, Maira	BR	



ISO/TC 130/WG 3 Process control and related metrology

**Attendance List**

Attendance List of the ISO/TC 130/WG 3 Meeting. Fort Worth, 2009-05-19/21

Name	Country	Signature
✓ Daugherty, John	US	
Davison, J. W.	GB	
Dieckhoff, Frank	DE	
Donahue, Timothy	US	
Drehle, Dutch	US	
Drümmer, Olaf	DE	
Egawa, Yuji	JP	
Fuchs, Walter Magister	AT	
Gaykema, Frans	NL	
Ginguene, Pascale	FR	
Goodman, Richard M. Dr.	US	
Green, Phil	GB	
✓ de Groot, Wilco	NL	
✓ Hannemann, Peter	DE	
Hansuebsai, Aran Prof. Dr.	TH	



ISO/TC 130/WG 3 Process control and related metrology

**Attendance List**

Attendance List of the ISO/TC 130/WG 3 Meeting. Fort Worth, 2009-05-19/21

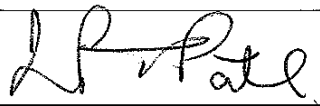
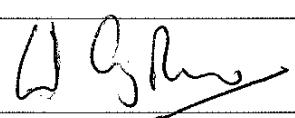
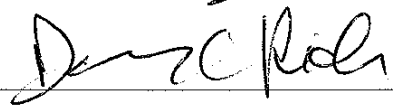
Name	Country	Signature
Heid, Wilhelm	DE	
Hittema, Tony	FR	
✓ Hossli, Gallus	DE	
Iobst, John W.	US	
✓ Ito, Akihiro	JP	
Khoury, Elie	FR	
Kleinheider, Peter	AT	
✓ Luetkens, Heath	US	
✓ Matsuo, Masaaki	JP	
✓ McDowell, David Q.	US	
✓ Meinecke, Karl M.	DE	
✓ Mortara, Bruno Arruda	BR	
Ng, Yee	US	
Niles, David	US	
Orf, Debbie	US	



ISO/TC 130/WG 3 Process control and related metrology

**Attendance List**

Attendance List of the ISO/TC 130/WG 3 Meeting. Fort Worth, 2009-05-19/21

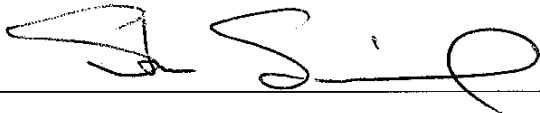
Name	Country	Signature
Osada, Koichi	JP	
Otero, Susana	ES	
Pachonklaew, Pakamas Prof.	TH	
✓ Pate, Laurie	GB	
Presley, Richard	US	
Priest, Mark	GB	
Pungrassamee, Pontawee Prof.	TH	
Rangel, Rose	BR	
✓ Revie, Craig	GB	
✓ Rich, Danny Dr.	US	
Rodriguez, Michael Dr.	US	
Rupyshev, Viktor	RU	
Ruttanasirimaneevate, Prajak	TH	
Schaul, Ronald Professor	DE	
Schowalter, Chris	US	



ISO/TC 130/WG 3 Process control and related metrology

**Attendance List**

Attendance List of the ISO/TC 130/WG 3 Meeting. Fort Worth, 2009-05-19/21

Name	Country	Signature
Seymour, John	US	
✓ Smiley, Steve	US	
Soares Stucchi, Aparecida	BR	
Songsermsawas, Santi	TH	
Sousa, Elcio	BR	
Steiger, Walter F. X.	CH	
Süßi, Florian	DE	
Sunderland, Bryan	GB	
Takahashi, Makoto	JP	
Takahashi, Yasusuke Dr.	JP	
✓ Takita, Hiroaki	JP	
✓ Thongpetch, Supree	TH	
Tyler, Caroline	GB	
Urabe, Sunao	JP	
van Middelkoop, Kees	NL	



ISO/TC 130/WG 3 Process control and related metrology

Attendance List

Attendance List of the ISO/TC 130/WG 3 Meeting. Fort Worth, 2009-05-19/21

Name	Country	Signature
✓ Warter, Lawrence C.	US	<i>Lawrence C. Warter</i>
✓ Widmer, Erwin	CH	<i>E. Widmer</i>
Zawacki, Walter F.	US	
Zhiyong, Ma	CN	
Coleman, James E.	US	
Jordan, Byron Dr.	CA	
✓ Battrick, George	<del>DE</del> ERA	<i>GWBattrick</i>
Beckmann, Beatrix	<del>DE</del> IFRA	
✓ Thees, Roland Dipl.-Wirt.-Ing.	<del>DE</del> IFRA	<i>R. Thees</i>
LANAT Luc	FR Stève Ensa	<i>Luc Lanat</i>
Victor ASSEICEIRO	US GTC	<i>Victor</i>
FAZZI, Joseph	US	<i>J. Fazzi</i>