

## Minutes of ECI Meeting, Munich, 2005/03/04



### Participants

- ▣ Karsten Ackmann
- ▣ Michael Adloff
- ▣ George Battrick
- ▣ Günter Bestmann
- ▣ Ulrike Cremer
- ▣ Markus Dätwyler
- ▣ Olaf Drümmer
- ▣ Claudio Höcker
- ▣ Peter Kleinheider
- ▣ Karl Koch
- ▣ Andreas Kraushaar
- ▣ Karl Michael Meinecke
- ▣ Klaus-Hermann Otto
- ▣ Renate Rewer
- ▣ Ronald Schaul
- ▣ Bernhard Schmidt
- ▣ Henrik Schmidt
- ▣ Maren Schmidt
- ▣ Ulrich Schmitt
- ▣ Jörg Schober
- ▣ Rainer Schoeppn
- ▣ André Schützenhofer
- ▣ Florian Süssl
- ▣ Dietmar Wüller
- ▣ Darrian A. Young

### 0. Introduction

Olaf Drümmer opens the meeting and welcomes all participants. He thanks red blue Marketing GmbH for hosting this meeting.

## **1. Minutes and action items from previous meeting (October 22, 2004, Berlin)**

### **1.1 Approval of minutes**

No comments. The minutes are accepted without modifications.

### **1.2 Pending action items**

An overview over the pending action items can be found in Appendix A.

- 1.** Actualize ECI-WhitePaper: Liane is working on it.
- 2.** Turn ECI into a formal organization: Olaf is working on it.
- 3.** We want to make clear the legal situation for distributing the QUIZ profile of ifra together with the Altona Test Suite. Karl Michael has got a licence text from Gretag Macbeth. Heidelberg has a clear licence policy. If we can not get a licence text from Gretag Macbeth we try to get the same licence from Heidelberg as Ifra got for its QUIZ profile. It then has to be built using PrintOpen instead of ProfileMaker.
- 4.** The German texts are complete. Peter Kleinheider will ask the chairmen of the workgroups for the english version of the description.
- 5.** See section 5 «Projects»
- 6.** This is a permanent task. It is closed as an action item and will be reopened when necessary.
- 7.** The french section will start as soon as there are translations.
- 8.** There was a meeting with vendors the day before this meeting. See Section 3.1 «Proof».

## **2. Upcoming events in 2005**

### **2.1 IPA Technical Seminars Cicago, June 7-9, 2005 (Süßl/Drümmer)**

This event is similar to the Digitalproof-Forum. They intended to use test prints based on Gracol004 but did not manage to get a good enough quality. Therefore they will use the Altona Test Suite.

In 2004 GATF has founded a workgroup to review GATF and Gracol specifications. Olaf Drümmer will engage in replacing these national standards by an ISO standard within the next 2 to 3 years.

### **2.2 Digitalproof-Forum Autumn 2005**

There were problems with the reservation system of the university of Wuppertal. The Forum will be held now on September 20./21. in Stuttgart. Ronald Schaul has the written confirmation of the reservation for Stuttgart. The event has to take place in this week (38) for the week befor is «Print 05» in Chicago, the week after are ISO TC 130 meetings in Sao Paulo.

The test procedure will change: The vendors will deliver only one proof which is used for both, the visual assessment and the measurements. Ronald Schaul will perform an improved test of the measurement devices.

Further ideas for tests are ink tests (very time consuming), paper tests, fading tests, repeatability tests (using more than one printer). Last time the proofs were re-measured five weeks after the forum. The results are on the documentation on CD. This time we could ask the vendors to repeat the proof of the last forum.

Transparency will be an issue for the next few years, according to Olaf Drümmer. It should be maintained as long as possible in a production workflow. We should have a presentation dealing with transparency at the next forum. Transparency elements shall be part of the testform as soon as it is part of the PDF/X standard.

### **2.3 Next ECI meeting**

A overwhelming majority wants the next ECI meeting to be held in October 2005. bvdM offers to host the meeting. The meeting date will be communicated via maillist.

## **3. Working Groups**

### **3.1 Proof (Hoffstadt/Adloff)**

The whole group has met twice – in November 2004 and the day before this meeting. As a result there is now a list of around 20 criteria influencing the quality of a digital proof. Homogeneity, repeatability, short time fading and long term fading have been investigated during the last 4 months. Homogeneity does not seem to be a problem. The repeatability within 3 days yields a  $\Delta E \leq 1$ . Short time fading should stop after 15 – 20 min. Then the colors should remain stable within a  $\Delta E \leq 0.5$ . The color should be stable for at least 3 months. Some users of such systems may define longer stability according to their needs.

The vendors agreed with this criteria list. They suggested to organize only one Digitalproof-Forum in Europe to keep the expenses at an affordable level.

Within the next few weeks the criteria list will be finalized and translated into english. Then this item will be closed. The goal of the workgroup is to write and maintain a guideline («Leitfaden»). It should enable a user to test digital proofing systems according to his or her requirements. The tests will be targeted for normal users or for experts. The criteria list will be a part of this guideline. It will be an input for other groups such as ISO or PACI and will be published on the ECI members list.

Ugra/FOGRA Media wedge: Günter Bestmann has proposed a method to condense the measurement results of the media wedge into a single figure.

UV-light: ISO plans to get rid of this problem by totally eliminating the UV-light from light boxes and measurement devices. Andreas

Kraushaar invites everybody to participate in the next meeting of the ISO TC 130 on May 9. - 13. in London. The meeting after this meeting will be Sept. 26. to 30. in Sao Paolo, Brazil.

ECI will not certify any proofing systems. It deals only with the results and does not prescribe technical solutions. There will be some recommendations in the users guide. Later on institutes like FOGRA or Ugra may certify proofing systems according to target values which they have to define themselves.

### **3.2 Workflow (Schützenhofer)**

A list of questions has been circulating within this workgroup. The group will meet in two weeks. It keeps in touch with the workgroup «Digital Photography».

### **3.3 Digital Photography (Wüller/Dolezal)**

The guideline «Digipix 3» is available in the download area of the eci homepage. It has been established in cooperation with an ADF workgroup (Arbeitskreis Digitale Fotografie). Many ECI members have had a look at it. Their input: The terms should be used consistent. This problem arose because 10 authors have contributed. It will be published in «Profi-Foto». LaserSoft will pay for the english translation. George Battrick knows a company in Belgium specialised on such translations. Claudio Höcker will guarantee for the technical correctness of both, the german and the english version. Jörg Schober will look for a translator within his company.

Dietmar Wüller has developped a first version of an universal monitor background suited for calibration. It is intended to replace a lot of proprietary desktop background images. The manual is finished but not yet complying with the corporate identity guidelines of the ECI.

Pending issues:

ISO TC 42, WG18 Digital Still Picture: This group is preparing the ISO 22028 on colour encoding of RGB images. As soon as the future of the ECI-RGB is clear Dietmar Wüller will contact this WG.

Colour processing in digital cameras: Cameras should be able to process colours according to ICC. There should be a possibility to download ICC profiles to the camera. Up to now especially japanese cameras allow only sRGB and Adobe-RGB.

The workgroup fights for one single raw format for digital cameras. Dietmar Wüller will analyze AdobeDNG. If it is good, he wants to give the statement that ECI supports this format. Karl Koch is collecting any comments on this format. We have to put some pressure on the manufacturers. They will not abstain from their proprietary raw format for there is a lot of know how in it.

Colorspace Photogamut RGB: The profile has to be finalized. The workgroup will analyze whether it has any advantages over ECI-RGB.

The «Normenausschuss Bild und Film» (DIN NBF4) wants to establish a standard on how to control RGB image data. If a photographer does get images with wrong colours from a lab there will be a test to find out whether the images or the data were ok. This

will probably lead to an ISO standard.

Autenticitation issues of images: The digital camera should include invisible watermarks in the images that become visible while processing this image. Dietmar Wüller has written a guideline on how to use images in documents in legal proceedings. Feedback and participants are welcome.

Olaf Drümmer thanks for this lot of work. He knows many persons starving for the english translations. If we need more money for it, we will publish this on the ECI mail list.

### **3.4 Gravure (Bernhard Schmidt)**

The workgroup has met 2nd of February in Nürnberg for test print runs and the evaluation of prints and proofs. A new PSR standard type «Heavy weight coated» (HWC) or «improved LWC» will be created (PSR\_impLWC). It is based on characterisation data (ECI 2002) taken from the final prints (No. 4 from 2<sup>nd</sup> of February). From these characterisation data, the ICC profile (PO) and proof adaptations will be produced.

The workgroup has compared proofs from CGS-Canon, Digital Cromalin, Iris-GMG. The existing paper shade of MF has been looked at. The specification (PSR\_MF) will not be changed because there is no standard as paper manufacturers change the shade according to the wishes of the customers quite often.

A main issue in this workgroup is the method how to get a closer coincidence between proofs based on ICC profiles and proprietary solutions. Bernhard Schmidt presented a review of the discussion (see Appendix B). There is no reference print in gravure for the colours are fading within weeks. There are reference data from which an ICC profile and a GMG profile have been built. The GMG profile has been manually adjusted so the results of the two profiles are not the same anymore. At the moment Iris proofs are accepted as reference.

There are several proposals for a solution. Renate Rewer, Henrick Schmidt, Bernhard Schmidt, Klaus-Hermann Otto and Günter Bestmann discuss them during lunch with the following result:

There will be a re-profiling of the Iris system. Klaus-Hermann Otto, Renate Rewer, Bernhard Schmidt and Sascha Bugai will proof using the same base. The results will be exchanged by e-mail. If there is a new profile, its quality has to be tested for the 4 gravure printing conditions. The profile will be distributed together with the newsprint profile as an update to the Altona Test Suite.

Henrick Schmidt wants to know the difference between proofs made with the ordinarily used GMG profile and with a uncorrected GMG profile based on the original uncorrected data.

### **3.5 Web offset (Drümmer/Meinecke)**

One test run is finished. Meinecke will organize a second test run with 5 printers to get standard printing conditions for SC paper. The

Altona Test Suite will be printed together with 2 pages with pre-separated RGB images.

Darrian Young has seen an excellent coincidence between a print and an ICC-proof on LWC paper.

## **4. Beyond ICC color management according to the ECI White Paper**

A few weeks ago Olaf Drümmer asked on the mailing list how ECI members implement ICC. The workflows used are different from the workflows listed in the white paper. E.g. Only two members do colour management on black text. The colour management of Indesign is not useful because it works according to our white paper. Olaf can not promote ICC as long as even his own company does not use it as described in the white paper.

When we have written the white paper we only had in mind photographic images. Teachers and classes have tried the workflows of the white paper. They were disappointed that it did not really work. It is not sufficient to change a few sentences. The whole ICC framework needs corrections. For any item that is not a photographic image needs a special treatment.

Günter Bestmann explains that JDF allows for example to define a whole document to be printed only in black and white. George Battrick suggests to add meta data to every item, e.g. to keep business charts untouched by colour management. Drümmer does not want to add more switches – there are already too many. We should define how applications should handle certain aspects, targeted to small companies, not to big ones with specialists. We have to identify the issues. The first will be black text. Other issues may require a choice between five options.

Peter Kleinheider will provide such a list of issues. There will be a focussed small group discussing it: Florian Süßl, Günter Bestmann, Karl Koch, Karsten Ackmann, Ronald Schaul, André Schützenhofer, Olaf Drümmer, Claudio Höcker. Olaf Drümmer will formulate the target of this group. The results will probably also influence the workflow workgroup.

## **5. Projects**

### **5.1 Altona Test Suite (Meinecke/Süßl)**

Karl Michael Meinecke presented a list of items that will be improved, including new characterisation data for gravure and newsprint and new data for web offset. (details see Appendix C).

There will be a comparison between the ATS prints and testprints from 2005. Cyan is totally different from the ISO value. The total ink coverage will soon be taken into consideration. Meinecke will collect the results of four different sets of ink. The secondary colours differ less from the FOGRA27 data than the primary colours.

## **5.2.eciRGB 2.0 (Henrik Schmidt)**

Discussion, if eciRGB should be ISO standardized. In that case: Who has experience with LStar technology? Günter Bestmann states that Hell has been using an L\* characteristic in their scanner color conversion for 20 years.

Cons: It took a long time to establish eciRGB in the market, an age of 6 years is not a valid argument for a change.

Pros: Why not use the latest technology that is available?

option 1: leave as it is and submit for ISO standard: votes 0

option 2: eciRGBv2 and ISO standardize majority

Abstain: 4

Conclusion: ECI members evaluate usefulness of LStar-RGB and report at the next meeting. No objections. If the name is not eciRGBv2 the ECI will not follow this suggestion

## **5.3.Next Generation Media Wedge (Florian Süßl)**

Not a successor for the Media Wedge, but a tool for printers, that allows a visual and measurement supported control that helps to achieve a good approximation of a good proof. BMW has a similar wedge that contains gray and 3c elements Suggestion: 2 layouts, a long one in printing direction, a small one that fits into the ink zones. Free of charge with a hotline that costs money. Based on the characterization data of the printing conditions. Evaluation phase, report problems to Süßl or bvdn. Preliminary versions are available for internal tests only. Should be available within a couple of weeks. Step 1: FOGRA tests. Step 2: Define the final values Step 3: Available through FOGRA web site. Discussion on copyrights, availability price.

# **6. Standards and Specifications**

## **6.1.Flexo, Digital Printing (Darrian Young)**

Are there any standards or ICC Profiles? How far along are 12647-6 and 12647-7, are there any Characterization Data?

No data or profiles available today, according to users, values in the standard are not relevant in practical work. Digital printing (part 7) was dropped by the ISO/DIS.

## **6.2.Status of various ISO Standards (Meinecke)**

DIN and ISO Standard CD ROM (1 single PDF) will be available soon. Older versions as scanned images, newer ones as text. From DIN or Beuth Verlag, ca. 100 Euros

## **6.3.Status of PDF/X 2006 revision (Olaf Drümmer)**

CGATS is working on a revision, it will be presented at the London meeting in May. Plan is to make a major revision. Release in 2006. Version will include Transparency, v4 Profiles, Layers,. These are additional specification and will not replace existing versions.

PDF/X discussion group on Yahoo, ask Olaf Drümmer if you intend to join.

#### **6.4 Standardisation of Spot Color Printing (Drümmer/Süßl)**

Complete absence of guidelines for printing and simulating other than 100% ink. Should ISO TC130 start to work on this issue? Necessary is a Draft Proposal (George Battrick) and 5 countries to support the proposal. ECI requests that TC130 issues a new work item that standardizes printing of spot color; 2 abstaining all others vote for the motion.

#### **6.5. General standards issues: Printing across continents - how many different national standards do we need? (Drümmer/Süßl)**

The plan is to bring people from USA and Europe together at the ISO meeting in London. (George Battrick offers to bring IKEA in)

#### **6.6 Exchanging ad files using monitor proofing (Draft from Alan Darling)**

Feedback on the draft from Alan Darling: Too much weight on digital signatures, no help for improving the quality. Statement from Andi Kraushaar: Today's monitors are not sufficient for soft proofing. Goal is to define new standards and thresholds that cover the latest high end monitors abilities.

#### **7. Liaisons with other than color related organizations**

Olaf Drümmer: We have enough to do with color, typography is none of ECI's business. Request to liase with ATypl is denied. Motion: nobody disagreed

#### **8. Different items**

##### **8.2 Corporate Design for ECI**

New Action Item: Request service from other members who can offer a CI design (redblue? Ask universities if their students can contribute (Karl Koch, Henrik Schmidt).

##### **8.3. Print Future Interface (Meinecke)**

Uni Wuppertal, Stuttgart, Project turned down because of funding, not innovative enough and not enough transfer of technology. Meinecke will start a new project.

##### **8.4 other**

Printed Version of DigiPix will be printed early April, so feedback must be entered by 17. March (to Dietmar Wüller).

Date for next eci Meeting. Meinecke offers to host at bvdM in Wiesbaden. Drümmer sends out suggested dates after evaluating industry event dates etc. Proposed date: October.



**Appendix: Table of Action Items**

<b>Nr.</b>	<b>Action Item</b>	<b>Lead</b>	<b>Status</b>
<b>2003/04/04 Hamburg</b>			
1	Actualize ECI-WhitePaper	Liane May	In progress
2	Follow up on ECI club finding	Olaf Drümmer	In progress
<b>2003/09/26 Munich</b>			
3	License text for ECI offerings	Drümmer, Cremer	In progress
4	Description of aims and activities of the Workgroups	Peter Kleinheider	In progress
<b>2004/03/26 Barcelona</b>			
	Project «Color Management in DTP Applications»	Drümmer, Dolezal, Süssl	Cancelled
5	New Workgroup «Identifying Paper Properties»	Drümmer	In progress
6	Update/optimize web page contents	All	Closed
<b>2004/10/22 Berlin</b>			
7	French section for ECI web page	Elie Khoury	In progress
8	Contact vendors to evaluate proofing concept of Digitalproof-Forum	Hoffstatt, Adloff	Done
<b>2005/03/04 Munich</b>			
9	Replace GATF and Gracol by an ISO standard	Olaf Drümmer	In progress
10	Final version of the proofing system criteria list	Hanno Hoffstadt	In progress
11	Guide lines for evaluating digital proofing systems	Michael Adloff	In progress
12	English translation of digipix 3	Wüller	In progress
13	Establishing the latest ECI-RGB in ISO 22028	Wüller	In progress
14	Make manufacturers allowing to download ICC profiles to digital cameras.	Wüller	In progress

15	Establishing a single standard for the raw format of digital camera images	Wüller	In progress
16	Compare Colorspace Photogamut RGB to ECI-RGB	Wüller	In progress
17	Watermarks in digital camera images	Wüller	In progress
18	Re-profiling of the Iris system for gravure printing	Bernhard Schmidt	In progress
19	List of issues to be adressed in colour management workflows	Peter Kleinheider	In progress
20	Formulate the target of the group discussing colour management workflows	Olaf Drümmer	In progress
21	Request assistance from ECI members in creating CD for ECI	Schober, Schmidt, Koch	In progress

## **Appendix B: History of the gravure proofing problem**

## Sachverhalt zum PSR\_ECI\_LWC:

ICC-Profil:

PSRgravureLWC.icc



Gelegentlich Probleme,  
bzw. einen Unterschied in bestimmten Bereichen

GMG-Anpassung Iris:

PSR\_ECI\_LWC\_V1.mx4

**Dieser Sachverhalt führt immer wieder im Tagesgeschäft zu Problemen und damit zu Diskussionen.  
Hier ist dringend ein Bedarf an Klärung!**

## Historie

### Druck 2001:

Auf dieser Testform waren:

- IT-8 Target
- GMG TC 4
- Dupont ...
- Verschiedene Images (Seiten aus Produktion)

## Historie

### Erstellung einer Proofanpassung Iris mit GMG

Vorgehensweise:

- Vermessung von GMG TC4 und IT 8 (nicht alle Werte)
- Verrechnung von Ist- und Zielwerten zu einer Proofanpassung
- Visuelle Abmusterung Vergleich Proof zu Druck mit Korrektur bei Abweichungen
- Bestätigung der Ergebnisse durch WG-Gravure
- Vermessung eines geproofteten IT-8 Charts als „Charakterisierungs“-Daten für diesen Prozess
- ICC-Profil erstellt (von diesen Werten)

## Historie

### Änderung in 2002

Ziel: Charakterisierungsdaten vom Druck als ECI2002-Chart

Basis: Messwerte des Drucks von GMG vermessen



Messwerte  
Untermenge  
IT 8



Messwerte  
Untermenge  
TC 4

Rechnerisch  
interpoliert und  
Werte für  
ECI 2002 Chart  
ermittelt



„virtuelles“ ECI 2002

Rechnerische Erzeugung von Charakterisierungsdaten des Druckes

## Historie

### Erstellung neuer ICC-Profile

- Printopen-Profil („PM“)
- Profilemaker-Profil („PO“)

### Änderung 2003:

Danach wurde einheitlich ein Profil mit Printopen erstellt auf den Server gestellt: „PSRgravureLWC.icc“

## Einsatz

### Iris GMG-Anpassung

Diese Anpassung ist seit 2001 unverändert im Tiefdruck im Einsatz.

- Tausende von Seiten sind im Standard „PSR\_ECI\_LWC.mx4“ innerhalb Europas von verschiedenen Tiefdruckern gedruckt worden. Alle hatten damit gute Ergebnisse erzielt.
- Bisher wurde kein Änderungsbedarf von einzelnen Druckern angemeldet.

Entscheidung im AK-Tiefdruck:

IRIS mit GMG ist Basis für eine visuelle Referenz !

## Veränderte Situation im Proofmarkt

### Neue, qualitativ hochwertige Proofsysteme auf dem Markt

- Technologische Veränderungen führen im qualitativ hochwertigen Proofmarkt zu neue Proofsystemen.
- Materialien mit starkem Metamerie-Verhalten und zum Teil optischen Aufhellern im Einsatz, damit ist auch die Streubreite der Ergebnisse deutlich höher.

Die reine messtechnische Bearbeitung der Proofs führt zu visuellen Abweichungen, bedingt durch Metamerie und sonstige Einflüsse.

## Weiter Proofsysteme und Anpassungen

Es wurden auf Basis von Iris Referenzproofs weitere Proofanpassung für andere Systeme erstellt:

- Epson 9600/7600/4000 mit GMG (visuell gut, Produktionserfahrungen)
- IRIS Veris mit GMG (visuell gut)
- Canon mit CGS (visuell noch teilweise größere Abweichungen, wird nachgebessert)
- Dupont B-Printer (visuell noch teilweise größere Abweichungen, wird nachgebessert)

**Alle Proofanpassungen wurden messtechnisch durchgeführt und visuelle abgemustert, aber noch nicht alle für gut befunden.**

## Test

	GMG- Anpassung	PSR-ICC-Proof	ICC-Proof Messwerte von Iris
Iris	Referenz	Abweichungen z.B. insgesamt rötlicher, partielle Unterschiede	Abweichungen da, aber deutlich besser als mit PSR-ICC
Epson	Visuell sehr gut	Starke Abweichung, deutlich gelber	ICC-Proof Messwerte von Epson  Abweichungen da, aber deutlich besser als mit PSR-ICC

## Vorschlag

### Schaffung von Referenzen für verschiedene Proofsystemtypen

Verfahren	Referenz
Druck	Druck.icc
Iris	Iris.icc
Epson 9600/7600/4000	Epson.icc
IRIS Veris	Iris_Veris.icc
Canon	Canon.icc
Dupont B-Printer	Dupont_B.icc

...

Wichtig ist auch die Angabe für das verwendete Substrat. Die Messwerte sind die Charakterisierungsdaten für das jeweilige Verfahren

## **Appendix C: Update to Altona Test Suite**