

**W1.1 Image Quality of Printers**

W1.1 2003 – 018

MicroUniformity

Robert E. Zeman

Mar 21, 2003

Reference: W1.1 2003 – 017

**Micro Uniformity Ad-hoc Group Meeting, Mar 21, 2003 1:30PM EDT**

(Tele)present: Robert Zeman (Chair, Kodak), Eric Zeise (NexPress), Bill Kress (Toshiba), Rene Rasmussen (Xerox)

The agenda for today centered on an open discussion regarding targets and next steps and team meetings at PICS.

RR warned that for most of the uniformity test targets generated almost a year ago, we do not have corresponding scanner color calibration test targets. Furthermore, if we now print the color calibration test targets, colorants may be different or have faded relative to the new test targets. A consensus was reached that we should re-generate the targets properly, rather than risk having unknown color calibrations. RR reminded that there are printing instructions recorded in earlier notes. WK suggested that we repeat the earlier efforts (three L\* levels, neutral and blue), and then add artificial patterning if necessary to generate a scaled defect for judging purposes, and to achieve a working scale. More discussion from EZ turned the team to an initial generation of flat (i.e., no added patterning) samples and a comparison across technologies, allowing some assessment of results before moving towards attribute modulation. RR stated that we could request samples from non-team PICS attendees at the conference.

RR suggested that if members can get samples to him before PICS, he will endeavor to measure what he can. Scanned images will be distributed to team members. For microuniformity, a 1” viewing square will be used for psychophysical evaluations. Thus, measurements likely need not cover much larger areas, which will reduce file sizes. He will use a drum scanner, possibly a flatbed as well, and make decisions as necessary regarding variety of technologies, dissimilarity of attributes, and representative areas of the samples to be measured. RR will bring the sample set to PICS if possible. This will enable all to study the range of attributes at that time, providing insight for psychophysical experiment design.

RZ questioned if we should be thinking about analysis methods while we are waiting for measurements. EZ agreed, suggesting a paper by T. Bouk on halftone noise in NIP8, 1992, pg.506. He also referenced Allebach at NIP18. Team members are requested to search for literature references that may be applicable for analysis.

Regarding W1.1 meetings at PICS, EZ suggested we have both small team and a larger, all-teams meeting. A suggestion was made to have the small team meetings precede the larger meeting, so teams could bring problems to higher levels. BK (from Irvine, CA) preferred such meetings in the evenings to ameliorate time zone difference effects. RZ is to set a discussion agenda for the microuniformity team meeting.

**Next Teleconference: 1:30PM (EST), Apr TBD, 2003, Ph: 1-888-590-2286; passcode: 35683#**

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