

W1.1 Image Quality of Printers

W1.1 2001 - 040

MicroUniformity

Robert E. Zeman

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Joint Macro/Micro Uniformity Ad-hoc Group Meeting, April 12, 2001 1:00PM DST

(Tele)present: Marguerite Doyle (Lexmark), Steve Korol (Xerox), Paul Kane (Kodak), Rene Rasmussen (Xerox), Robert Zeman (Chair, Kodak), Yee Ng (NexPress)

The joint discussion opened with RZ seeking clarification for the need for separate macro and micro attributes. RR responded that we need to categorize both macro and micro responses because if a customer makes small prints, they will be viewed at a closer distance. The point was also raised that if one started with a negative or source file with a non-flat noise power spectrum, and used it to make 2 different sized images, then one would produce a non-linear visual response to visual noise seen in the two prints. But, having macro and micro responses reported would give a truer indication of what one would see at a given print size.

YN mentioned that graphic arts professionals routinely use loupes to evaluate images, and questioned how this would be taken into account. SK commented that different visual impressions result from different viewing distances. RZ then questioned, "Who are these numbers for?" There was general agreement that 1. Different viewers (e.g., technical, consumer, purchaser) would view images 'differently' (e.g., at different distances), and 2. That this question was of a general nature which should be decided at a higher level. It was agreed to bring this question to N. Burningham's attention at the PICS 2001 conference.

A question was raised about reporting these highly technical numbers (e.g., banding, noise, voids, etc.) to "average consumers" who might be comparing various printers. RR stated that all the sub-attributes are to be combined into a single "macro or micro-uniformity" number, and only that number reported. RR also commented that two uniformity numbers, one macro and one micro, appears to be a useful distinction.

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