

3D Simulation of Prints for Improved Soft-Proofing

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Abstract

The presentation describes a display tool developed to perform simulation and three dimensional (3D) rendering of prints, in the quest towards achieving improved soft-proofing capabilities. The tool developed is able to accurately represent the gloss and surface properties of a hard-copy, which are absent in current 2D soft-proofing workflows. Hard copies, viewed in everyday environments, are inherently 3D and these attributes play an important role in observer evaluation of the hard copy. The procedure adopted to develop the tool will be presented. The major components of the 3D workflow are identified as: the gloss prediction model, and the accurate representation of this gloss on a display using computer graphics rendering. The tool is currently undergoing extensive psychophysical testing for a quantitative substantiation of its usefulness against current 2D soft-proofing workflow. The experiments designed will be presented along with the preliminary results.

Author Biography

Rohit A. Patil received his B.Tech. degree in Chemical Technology with specialization in Technology of Fibers and Textile Processing, from Mumbai University Institute of Chemical Technology, India. Currently he is a second year Master's student in Color Science program at Munsell Color Science Laboratory in Rochester Institute of Technology. He has been working with Prof. Mark Fairchild and Dr. Garrett Johnson in the field of color visualization and rendering. He will receive his Master's degree in May 2004.