SWOP® Off-Press Proof Application Data Sheet

Global Graphics ProofReady System using the Epson Stylus Pro 4000

The SWOP Review Committee has approved the use of off-press proofs as input material to publications. SWOP Specifications recommend that: “the appearance of an off-press proof must closely simulate a SWOP press proof”.

I - Manufacturer

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Certified – May, 2004

II - Product

Global Graphics ProofReady System using the Epson Stylus Pro 4000

III - Introduction

The Global Graphics ProofReady System is designed to insure consistent color accurate proofs. By following the directions enclosed in this Application Data Sheet, using the latest piezo-electric inkjet technology found in the Epson Stylus Pro 4000 printer, along with the appropriate inks and substrate, one can produce visually acceptable proof/press matches to SWOP proofing. Global Graphics color tools and closed loop calibration features in the RIP, allows one to keep the digital proofing system in top printing form. The ProofReady model within the RIP makes setup efficient and accurate from the start. Additional features for spot colors and complex workflows exist as well within the RIP.

IV - Control Guide

SWOP specifies that a control guide such as a GATF/SWOP Proofing Bar be supplied on every proof. As a minimum, this guide should contain solids for the primary process color and two-color overprints, as well as a 25%, 50%, and 75% tint for each process color. A control guide or color bar containing these patches must be present on every proof that is to be certified. These patches provide a means to verify process control but usage and interpretation is the responsibility of the user.

Turning on the control strip feature in the Harlequin provides at a minimum the following information:
RIP Logo, Job name, Job Style, Page number, Job file name, file modification date and time, Output device name, Print date and time, resolution, page setup name, color setup name, screening, anti alias factor, Rip version, Paper orientation, Paper feed, Registration Check, White patch, Process Step wedges of 25, 50, 75 & 100% for CMYK, Progressives including 100% of RGB and Neutral Strips (3 color grays).

Other features exist but are controlled by the job configuration and available media space. Please refer to Harlequin RIP – Using a Control Strip when Proofing (Tech Note 54) for more information.

V - System Components

Harlequin RIP version 6.3 or newer
Genlin Calibration Utility (provided with RIP)
Epson VSD plug-in version 1.2r0 or higher
HEDSI and HEDSII Error Diffusion Screening plug-in
Epson Stylus Pro 4000 with 8 color UCM inkset
Epson Proofing Paper SemiMatte (S041724)
Supported measurement device for calibrating in Status T, Din or Din NB

RIP Setup:
After proper installation of the RIP and Epson VSD plug-in do the following:

- Insure Epson paper stock (Epson Proofing Paper SemiMatte SO41724) is loaded in the printer
- Insure Epson standard 8 color Ultrachrome inkset is loaded (not dual CMYK)
- In the RIP create a new page setup and under "Output Device"– Device, select the Epson 4000 VSD sheet or roll device. Configure for output (USB, firewire, network etc.)
- Next go under the ProofReady pulldown menu and select the profile - SWOP-cert SemiMatte Proof (note – selecting this output profile automatically selects the appropriate screening, resolution and input profile)
- Save the page setup with an appropriate name and use it to print your files

Note: Please refer to the Harlequin RIP manual and the Epson VSD manual for proper installation setup and calibration procedures if required.

VI - Finishing Procedures

Prints should be allowed to stabilize for 15-30 minutes prior to critical viewing.

VII - Finished Proof Characteristics

Proofs properly created using these instructions and components MUST conform to the following print/proof characteristics in order to be considered a SWOP Certified Global Graphics ProofReady System proof.

Color	Denisty (Absolute)	TVI at 50% (Dot Gain)	Print Contrast (75% T Value)	Color Measured (per CGATS.5) L* (±2.0)	a* (±2.0)	b*(±2.0)
Yellow	0.95 ±0.05	15.2 ±2.0	25.8 ±3.0	84.9	-7.6	82.1
Magenta	1.42 ±0.05	18.0 ±2.0	38.0 ±3.0	46.3	68.7	-4.9
Cyan	1.31 ±0.05	20.4 ±2.0	29.2 ±3.0	57.0	-41.5	-39.8
Black	1.65 ±0.05	19.1 ±2.0	41.0 ±3.0	16.6	1.1	1.1
Red	NA	NA	NA	44.6	61.7	44.3
Green	NA	NA	NA	52.2	-63.6	28.3
Blue	NA	NA	NA	28.3	15.7	-42.8
Paper	C .123, M .127, Y .154	NA	NA	89.6	-0.9	4.5

Note: All measurements were made using a calibrated X-Rite 938 Spectrodensitometer (D50 illuminant, 2º observer, non-polarized). The density values are in Status T units and reflect the 100% patches. Both the density and colorimetric data was collected using absolute with the base included and measured over a black backing. Tone value increases were calculated using the Murray-Davies Equation (CGATS.4).

VIII - Sample Proof

Two sets of Proofs have been provided to SWOP for retention and analysis.