

High-end proofing for the flexo and packaging markets

New standards of proofing for the flexo and packaging markets

Flexographic printing and applications vary significantly from standard offset print work, particularly in terms of the printing substrate variety and the number of spot colors. Consequently, a much higher standard of digital color proofing is required.

For several years GMG has been setting unrivaled proofing standards in this field. These have reached new heights with the introduction of GMG FlexoProof o4, a product designed for the unique needs of flexographic and packaging proofing.

Spot colors and opacity control

FlexoProof also includes the GMG SpotColor application, the ideal solution for managing special colors. All standard spot color systems, such as HKS or the Pantone® Library supplied with the product, are supported. GMG FlexoProof manages up to 64 separations in one image, with the spot colors held in a central color database where the user can add additional colors. All spot colors can be read automatically in any gradation and incorporated into the database.

Using a special algorithm, any spot overprint colors can be calculated and printed correctly. This is particularly important for simulations of duplex jobs or such color models as HexaChrome®. With the FlexoProof solution, color opacity and the associated print sequences can be specified as needed. White underprinting can be defined as a specific color as well.

Simulation of gradation curves and dot gain

Within GMG FlexoProof, the DotProof® module accommodates the specific tone reproduction and dot gain produced under any printing conditions. At the same time, the original halftone screened, 1-bit data from the imagesetter or CTP RIP remains unchanged, providing a highly accurate workflow. Any linearization curves in the CTP system that are irrelevant for proofing can be inverted to normalize the result. Press dot gain is easily shown in proofs.

Integration into workflows

FlexoProof is easily integrated into automated workflows. For example, the correctly proofed data can automatically be written to a “hot folder” and sent to the imagesetter or CTP process, without re-ripping the data.

Substrate reproduction

Individual printing substrate structures such as paper fibers or corrugated board structures can be specified in the system and reproduced in the proof. The base color of the substrate can be reproduced as well. Actual printing conditions can also be simulated, such as printing on lower quality paper, with the use of variable image noise.

Early detection of screening problems

In addition to processing nearly all industry-standard prepress data formats, GMG FlexoProof can also work with final 1-bit data, such as that created by the imagesetter or CTP RIPs. The data is color-profiled with the original screen information retained, not descreened. This supports the early recognition of tonal break-offs, moiré artifacts and trapping errors before plates are ever exposed.

Integration with flexographic and packaging workflows

The GMG FlexoProof solution can be integrated with a variety of different workflows. In particular, it can be tightly integrated with workflows such as Nexus™ and EskoGraphics®, with native data formats fully supported. The final 1-bit ripped, halftone screened data can be used for final film or plate production with no need for repeated ripping. This guarantees a true ROOM (Rip Once Output Many) process. With this approach the sometimes coarse screens used in flexo printing can be reliably reproduced even at the proofing stage.

For more information about GMG products, please contact your GMG dealer or visit us at www.gmgcolor.com.

GMG FlexoProof Technical Data

Software requirements	
Operating system	Microsoft Windows 2000 Server, Windows 2003 Server or Windows XP Pro
Hardware requirements	
Processor	Intel Pentium IV compatible or higher; dual processor configuration recommended
Product features	
Advantages	Incorporation of tone reproduction curves and press dot gain Simulation of printing substrate structure Support for 64 separations per Tiff image with opacity control Import of final 1-bit data from imagesetter or CTP RIPs Early recognition of screening problems such as moirés, tonal breaks and trapping errors Integration with current flexographic and packaging workflows
Software components	GMG 4D ColorEngine GMG ProfileEditor GMG DotProof GMG SpotColor Editor ICC Color Calculator GMG SpotColor database with Pantone® Library GMG RIPServer with full PDF/X-3 support
Product features	
Supported formats	PostScript, PDF, Tiff, Tiff-IT (CT/LW composite), Tiff-IT (CT/LW, separated), Tiff-LZW, Tiff-PackBits, 1-Bit-Tiff (screen data), Scitex CT/LW, EskoGraphics (Barco) LEN-Format, ArtPro AIF (Artwork Systems), CelebraNT, JTF (FujiFilm), Delta Document, Delta List, Photoshop DCS, Photoshop EPS, JPEG, etc.
Supported profiles	GMG MX3, MX4 and MX5 profiles Standard ICC profiles
Spot colors	Unlimited number of process and spot color separations per proof job Editable spot color database Pantone Library support Special color systems such as HexaChrome
Output modules	For all standard inkjet printers in a variety of classes: 2up, 4up, 8up, VLF
Supported measuring devices	Current X-Rite and GretagMacbeth models
Media	GMG ProofPaper semimatte, GMG ProofPaper gloss, GMG ProofFilm transparent, GMG ProofFilm opaque and custom media
Supported languages	English, German, French, Italian, Spanish, Portuguese, Polish, Turkish, Chinese, Japanese
Included components	GMG FlexoProof on CD User Manual, Pantone Library Fogra Media Wedge, Dongle

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