

Color Management and Proofing in Packaging Printing

gmg^{color}





Challenges in packaging printing

Great pressure of time and cost

- The product life cycle of consumer goods has become significantly shorter in recent years. Products are developed and launched on the market at an ever-increasing pace. The result is great pressure of time in packaging production.
- In the development and approval phase of packaging designs, the dispatch of prototypes and proofs by mail can substantially delay the approval process. Communication between service provider and customer costs valuable time.
- Proofs or prototypes made of original materials are often still produced using analog systems, and press proofing is also necessary in some cases. That causes high costs, and the repeatability of both solutions has its limits.

Demanding production

- At the start of a production process, it is usually not certain where and how a job will be printed. Consequently, the data often still needs to be adapted to the individual printing conditions in offset, gravure or flexo printing. Third-party data also has to be checked in relation to the subsequent printing process. That is not only a labor-intensive procedure, but also calls for great flexibility in repro houses.
- Dealing with different color standards and specifications defined by customers – often well-known manufacturers of branded goods – is a major challenge, since it is very important to maintain a consistent brand design in the different production processes.
- The ultimate color result is intended to be as consistent as possible, also when repeat jobs are involved or packagings are produced by different printing processes and on different materials.
- Extensive expertise, process control, and flexibility are necessary in order to reliably comply with these demands in the usually stressful environment of day-to-day production operations.



Time and cost savings



- ▼ In combination with GMG proofing software, the new inkjet printers from Canon, Epson, HP, and Roland permit maximum color quality in packaging proofs on a great diversity of materials, such as paper and film. At the same time, this method is significantly faster and cheaper than an analog proofing system or a press proof. Platemaking, cylinder preparation or photoengraving takes less time and money.
- ▼ GMG proofing software guarantees particularly high color accuracy, repeatability, and detail definition when producing contone and halftone proofs, e.g. on the Epson Stylus Pro WT7900 with water-based white inks or on the Roland LEC 330 with white and varnish support.
- ▼ The flexibility of packaging prepress operations is greatly increased, since GMG software permits particularly simple, automated proof production – and even directly on the customer's premises by means of remote proofing.

Color-accurate mock-ups



- ▼ The color management software GMG ColorServer/GMG SmartProfiler can be combined with a wide variety of output devices, such as the UV inkjet printers from Mimaki and Roland, to obtain consistent, accurate color results on virtually any substrate.
- ▼ In mock-up production, the Roland inkjet printers with integrated cutting blade are additionally suitable for finishing steps, such as cutting, contour cutting and kiss-cutting.
- ▼ In this way, packaging prototypes made of original materials can be produced rapidly and at low cost, with support of varnish and white.



Great production reliability



- For reasons of cost, the long run lengths and high quality demands customary in the packaging sector call for the most accurate possible simulation of the ultimate print product before the forme is produced.
- GMG FlexoProof permits color-accurate output of the 1-bit data from the imagesetter RIP as a halftone proof. As a result, potential sources of faults, such as breaks, moiré, etc., are detected at an early stage, thereby significantly increasing production reliability.

Consistent color standards

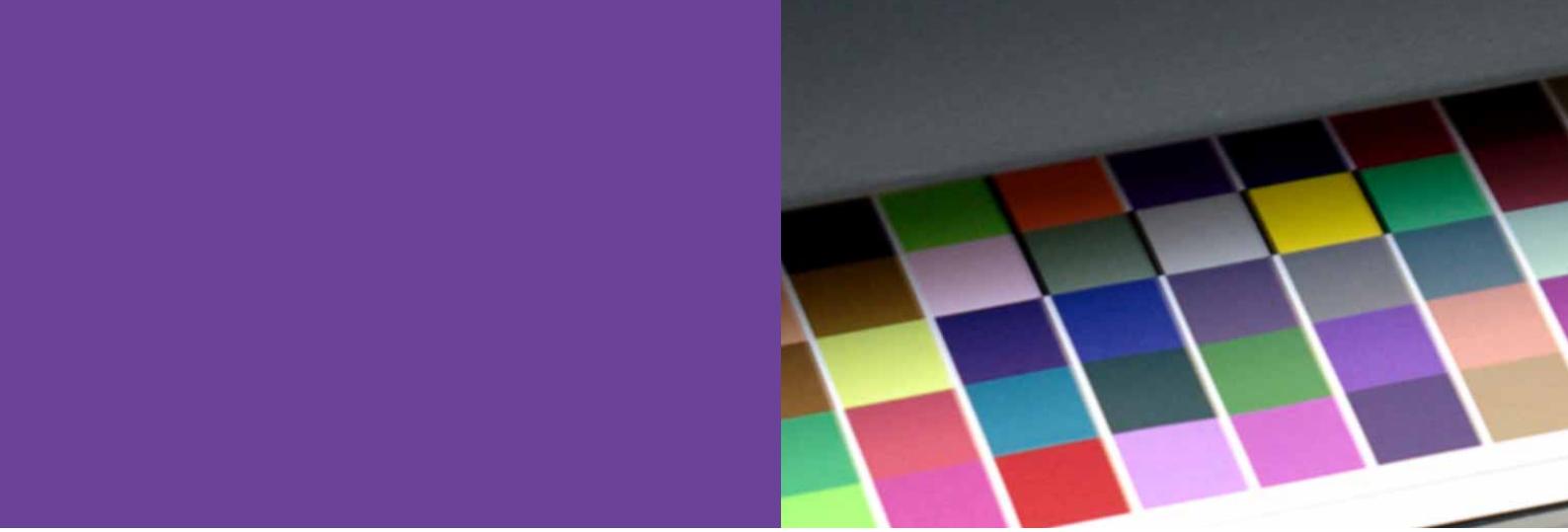


- Using GMG ColorServer and a standard working color space, such as PaC Space, printing data can be prepared once and proofed with the GMG proofing solutions. When the printing process is definite – offset, gravure or flexo printing – GMG ColorServer is then used to automatically convert the data to the respective printing color space.
- The prepress process is standardized, and substantially less time and money is expended.
- The GMG solutions offer prepress businesses in the packaging sector a decisive improvement in flexibility and a high degree of automation.

Remote proofing



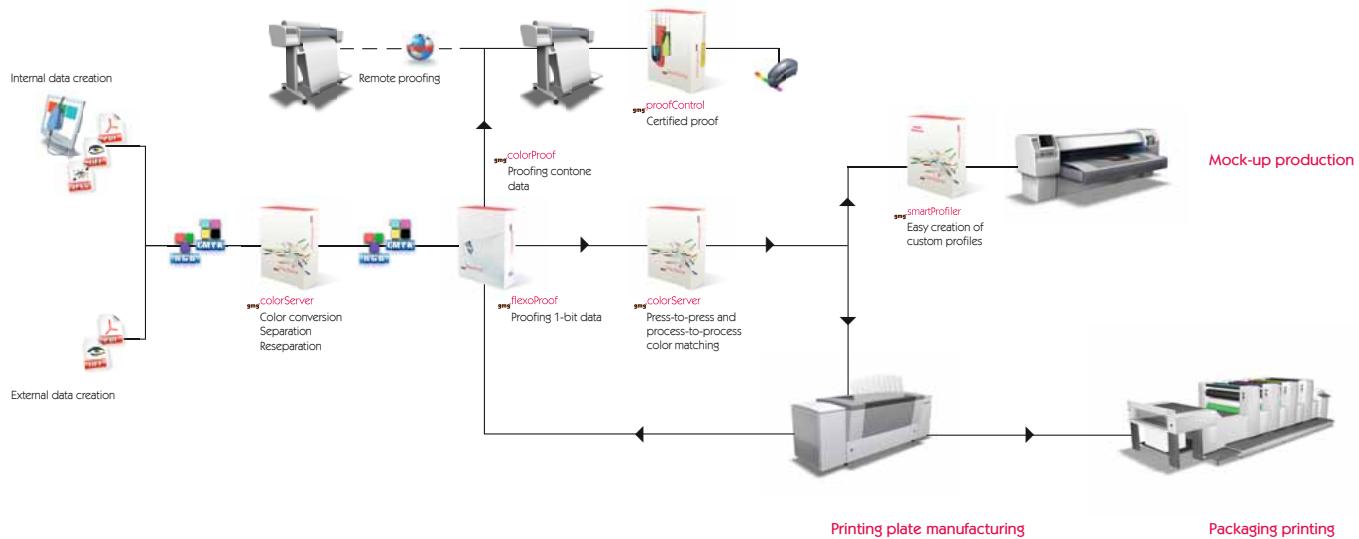
- The unique GMG remote proofing concept greatly accelerates the approval procedure between customer and service provider.
- Remote proofing allows a file to be output identically on two proofing systems at different locations. The color match is confirmed on the basis of a media wedge.
- Only with the GMG proofing solutions is true remote proofing possible, since they strictly separate the calibration and the profiling of the proof printers. This means that, once they have been created, color profiles can be flexibly used at different locations.



Creative

Prepress

Printing process



GMG software solutions keep you in control of color – from prepress to printing. GMG products form a single, modular family and support the common international standards, as well as your in-house standards, of course. Give them a try and convince yourself.



The GMG software solutions are available online at www.gmgcolor.com for free testing using your own data.



GMG ColorProof

GMG ColorProof guarantees particularly great color accuracy and repeatability when producing contone proofs. In combination with the new multicolor printers from Canon, Epson, and HP, far more spot colors can now be simulated. Together with GMG proofing media, this ensures the best possible quality when producing proofs. GMG ProofControl additionally verifies the proof, thus documenting that it really does comply with the relevant standard, such as PaC.Space or an in-house standard, and is valid as a contract proof.



GMG FlexoProof

GMG FlexoProof processes the 1-bit data of the imagesetter RIP, in order to already detect interpretation errors, incorrect overprinting or trapping settings, breaks and moiré effects in a color-accurate halftone proof before the plate or block is made. Individual substrate structures, such as paper fibers or corrugated cardboards, can likewise be simulated, as can the effects of register shifting and missing dots. GMG FlexoProof guarantees the sharpest dot definition, already taking the individual tone value increase and the first printable dot into account in the proof. The handling of spot colors is also specifically adapted to the needs of the packaging sector.



GMG ColorServer GMG SmartProfiler

GMG ColorServer and GMG SmartProfiler achieve perfect color matching, maximum repeatability and outstanding print quality on a wide variety of UV inkjet printers, e.g. from Mimaki and Roland. These printers are optimized for digital proof and mock-up production in the packaging industry, and deliver high resolution on any substrate, such as shrink film or metal foils, tinplate and composite cardboard. The extremely resistant, high-quality UV printing inks used by the printers mean that the same finishing processes can be applied as for the end product.





About GMG

With more than 25 years of experience in the graphic arts industry – particularly in color management and proofing since the early 1990s – the GMG name is synonymous with a guarantee for high-quality solutions for everything to do with color. Over 10,000 systems are in successful use around the globe in every segment of the graphic arts industry: from advertising agencies, prepress houses, offset, flexo, packaging, digital, and large-format printers, all the way to international gravure printers.

GMG is committed to supporting standards. So, it is a matter of course that the scope of supply of GMG products includes profiles for all common international printing standards, such as ISO, PSR, SWOP/GRACoL, 3DAP, etc., which are colorimetrically and visually optimized to meet the toughest demands.

GMG solutions are characterized by quality, reliability and repeatability. But these features describe not only the GMG products. They are equally the yardstick for our customer support and our international distribution activities.

The success of our past achievements does not leave us complacent. We are permanently working on improvements to our products in order to provide our customers in the graphic arts industry with complete solutions for standardizing and simplifying the color management workflow – from the idea to the finished print product.



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