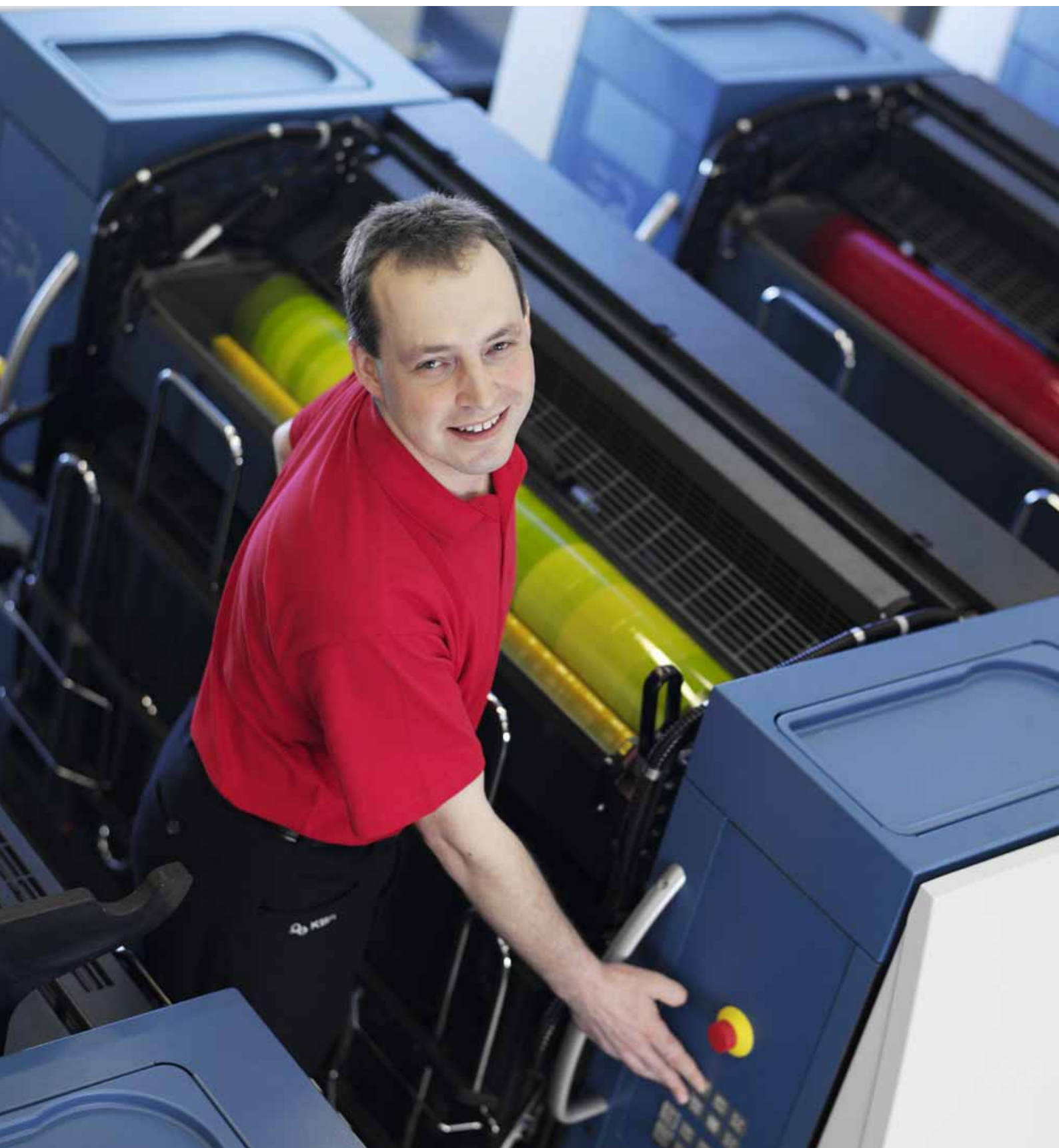


# Color Management and Process Control in Offset Printing

**gmg** color





# Challenges in offset printing

## Complex data handling

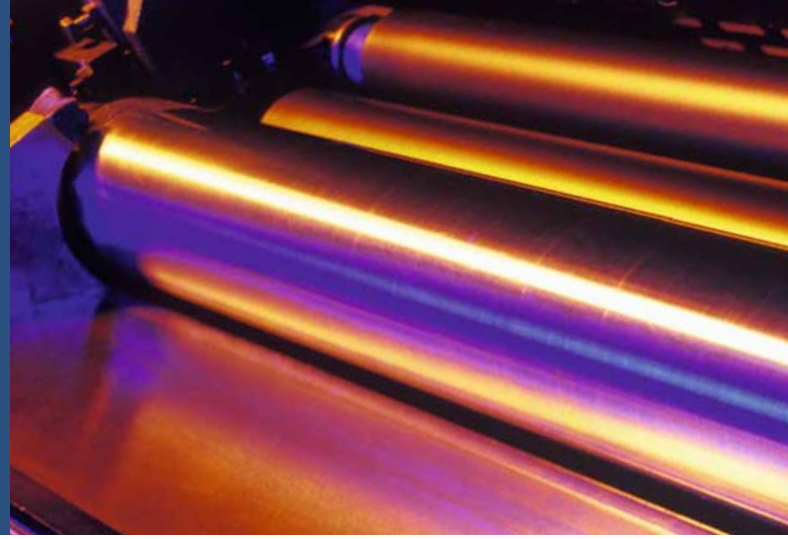
- Data from a wide range of suppliers is used in offset printing, and not all of it complies with the common offset standards.
- Manual adaptation of data to the respective printing conditions not only calls for expertise on the part of the staff, but also costs a lot of time and money.
- In such situations, it is impossible to work efficiently without automated color management processes.

## Different color results

- Customers expect consistent color results within a run, in repeat jobs, and also on different papers or presses.
- If complaints are received, it is hard to discover the cause of the problem without complete documentation of the printing process and a contract proof. Where did the process go wrong? Was it the data, the platesetting step, or the proof? Or was it because a different press was used, or because a different member of staff handled the job?
- In most cases, complaints lead to additional costs in the form of renewed production or price reductions.

## Pressure of time and cost

- The high-quality products demanded today have to be produced at low cost and swiftly.
- A price war has developed in the commercial printing sector, making the competitive situation even more difficult.
- Declining run lengths and a greater degree of individualization demand that printers become more flexible, while simultaneously saving time and cutting costs.



## Reliable data handling ...



- ▶ GMG ColorServer standardizes different data formats, separations, and color spaces – the „data washing machine“ for creating order in the chaos of the data jungle. Printing data is fully automatically prepared and optimized for the respective standard, e.g. ISO Coated V2 or ISO Uncoated.
- ▶ Automation gives service providers maximum flexibility – which is particularly useful if the printing press or the paper has to be changed at short notice.
- ▶ Centrally controlled color management via GMG ColorServer increases production reliability.
- ▶ Errors detected at the prepress stage can be corrected at a fraction of the cost that would later be incurred on the press.
- ▶ Maximum color and separation quality is guaranteed by the standard profiles included in the scope of supply of GMG ColorServer and InkOptimizer.

## Consistent color results ...



- ▶ GMG PrintControl makes it easy to check whether the press is printing in compliance with the defined standard. If this is not the case, the software adjusts the platesetting process to achieve the defined targets for color and tone value increase within the prescribed tolerances.
- ▶ Identical color results are obtained on different printing presses.
- ▶ There is no longer any need for elaborate color management on the press.
- ▶ GMG InkOptimizer reduces the amount of chromatic colors. Using black instead of CMY reduces ink consumption and increases printing quality and stability.
- ▶ In addition, the makeready times are substantially shorter, and far less waste is produced.



## Time and cost savings ...



In difficult economic times, the efficient and sustainable utilization of resources is more important than ever for offset printers. The introduction of standardized processes, color management and process control enables every printer to meet these requirements.

Standardized processes offer the following advantages:

- ▶ High production reliability thanks to trouble-free workflows.
- ▶ Quality enhancement and protection against complaints thanks to predictable, consistent color results.
- ▶ Reduced costs thanks to expending less time and material.
- ▶ Increased efficiency in production.
- ▶ Better communication between agency, repro house and printer thanks to the use of consistent standards.
- ▶ Greater flexibility and customer satisfaction.

## ... no problem with GMG!



With GMG software solutions, you have the right tools at your fingertips for ensuring smooth-running, high-quality production in the various stages of the process with the help of efficient, professional color management.

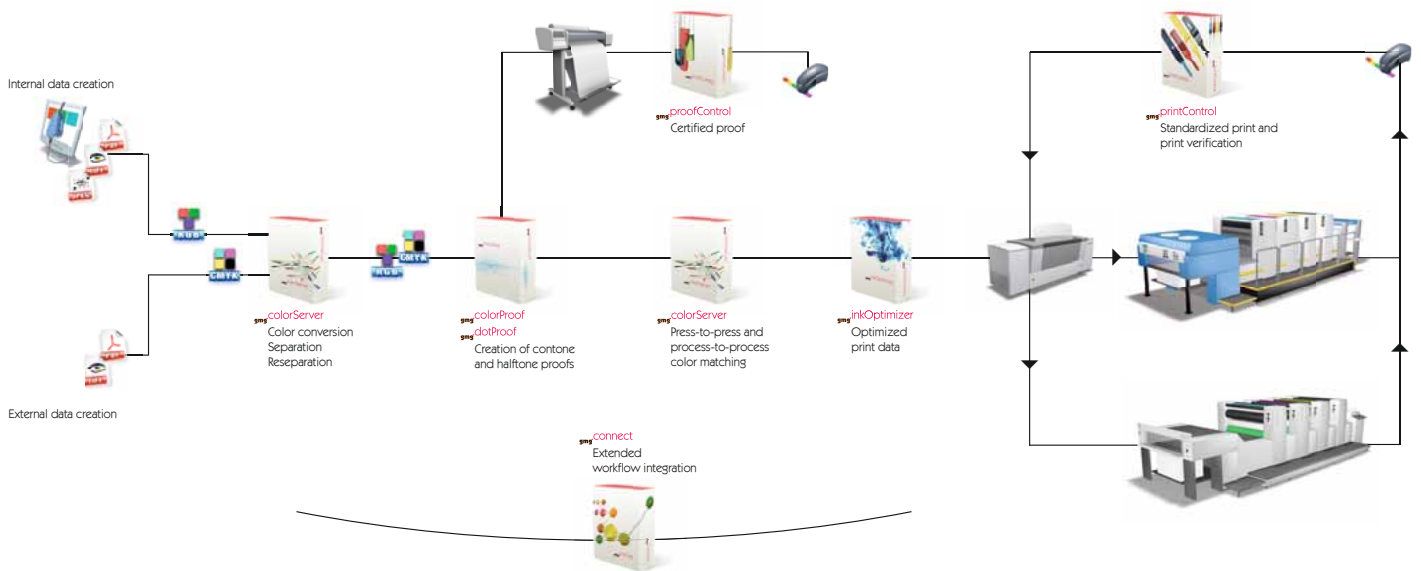
Be it GMG ColorProof and GMG DotProof for proofing, GMG ColorServer and GMG InkOptimizer for color management, or GMG PrintControl for process control.



## 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](http://www.gmgcolor.com) for free testing using your own data.



## GMG ColorServer

GMG ColorServer is of decisive importance within a color management workflow and in relation to production reliability, since it fully automatically matches RGB, CMYK and mixed data to a consistent color standard by separation, reseparation or color conversion. This is the only way to ensure that all data is optimally prepared and has an identical color appearance on the press. The DeviceLink approach devised by GMG avoids classical drawbacks of ICC technology, such as reseparation of the black channel.



## GMG ColorProof

Once the data is available in the definitive output color space, it is output with GMG ColorProof. In combination with GMG proofing media, this ensures the best possible quality when producing proofs. GMG ProofControl can be used to verify the proof, thus documenting that it really does comply with the relevant standard, such as ISO, Fogra, ECI, SWOP, GRACoL or an in-house standard, and is valid as a contract proof.



## GMG InkOptimizer

GMG InkOptimizer replaces CMY color components by black, while preserving the color impression. The improved color composition stabilizes the gray axis, resulting in significantly improved printing properties in the offset process, and saving ink at the same time. The optimized printing data makes it far easier for the printer to obtain the color appearance of the contract proof – assuming, of course, that the press is printing in accordance with the defined standard.



## GMG PrintControl

GMG PrintControl makes standardization and process control much easier. The software can be operated intuitively, providing a complete picture of the entire printing process by means of a detailed, numeric and graphic evaluation of a single control strip. If the press does not comply with the defined standard, the characteristics for platesetting are corrected with the help of GMG PrintControl, in order to achieve the prescribed targets and tolerances.





## 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.

Dealer's stamp

**gmg**<sup>color</sup>

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