

# WHO'S AFRAID OF COLOR MANAGEMENT?

No matter how a color is printed, it stays the same color. But only provided you have a central color management solution like that from GMG.

While precise, consistent color management has long since been commonplace in other fields of printing, it is only now that the significance of color for large-format prints – such as signs and displays – is also coming to be recognized. One of the most important reasons for this is the growing awareness of color management among customers, and their resultant, increasing expectations as regards color accuracy and repeatability, regardless of the printing process, the output device and the great variety of substrates. A consistent Corporate Design is expected, from the logo on the truck tarpaulin, all the way to the advertisement, the stationery or the image brochure.

## Complicated data handling

Doing justice to these demands is a major challenge for service providers, but it is eminently important for establishing long-term customer loyalty.

This may be one of the reasons why businesses in the large-format printing sector are more hesitant about opting for color management – the seemingly great degree of difficulty when it comes to reproduction and color matching when printing on a wide variety of different substrates.

In contrast to offset and gravure printing, or also to smaller-format digital and inkjet printing, large-format work frequently involves the printing of unusual materials, such as polyester film, netting, textiles, leather, or rigid materials, such as mold core plates and glass. Up to now, the challenge of ensuring consistent colors and

densities across such a diversity of substrates, ink formulations and industry standards was reason enough for many large-format print providers to forgo integrated color management in their workflow.

On top of that, data handling is complicated. Data are generally supplied from a great variety of sources in the ISOcoated v2 offset color space – and the customer expects corresponding quality. However, large-format printers produce by a different printing process and on totally different media. This means that the data have to be converted and normalized. This can occasionally be a time-consuming, manual, and thus error-prone task. Moreover, complex files with spot colors and transparencies can lead to production stoppages, depending on the age and quality of the front-end system used.

## Trial and Error

To achieve consistent colors on the press, many businesses currently rely on image editing specialists, who apply image editing tools to specifically »optimize« the colors of the files, job by job, in order to obtain results that are »good enough« to meet the customers' expectations. This »trial and error« method calls for substantial experience on the part of the user and is a highly time and resource-consuming procedure. And while the operator »corrects« a few colors in the image, other areas of the image are »destroyed«. This approach is based on subjective, visual

judgment, and the ultimate result is often a compromise.

## Central color management is the answer

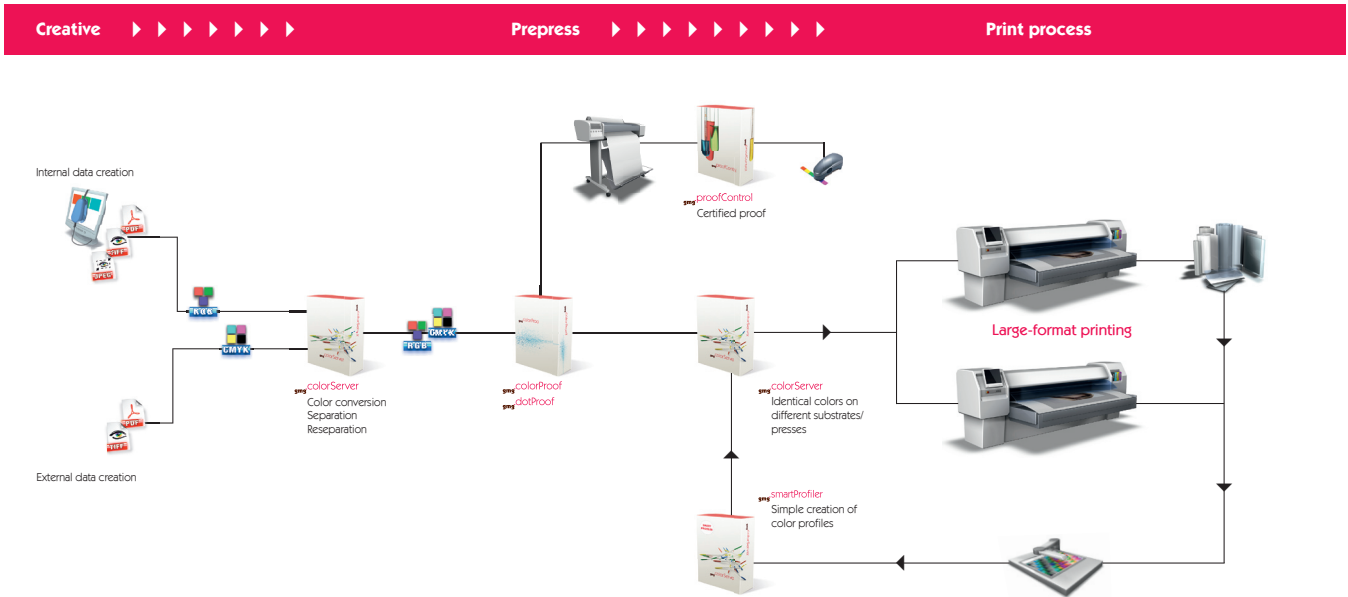
A central color management solution, based on a product like GMG ColorServer, delivers better and more consistent results than individual color corrections. Central color management guarantees identical color results on different output devices and when using different printing conditions. The software uses colorimetric algorithms to automatically convert the incoming data to the color spaces of the various output devices, this being particularly helpful if there is a change of printer or substrate at short notice.

In addition to color conversion, the software also performs separation and reseparation in order to ensure optimum printability on the various printing systems and substrates used. The visual impression is preserved in this context – regardless of the printing process, the printer and the substrates used for production.

When producing under pressure of time, a motif can therefore be split up and printed simultaneously on several machines. Because of the identical color results, the individual prints can be put together without any loss of quality. This significantly boosts productivity and greatly enhances the print provider's flexibility.

Since it uses the Adobe PDF Library, GMG ColorServer can convert transparencies and other elements from PDF files

# GMG color manages workflows



in such a way that the files can also be processed by relatively old RIPs without difficulty. In this way, GMG ColorServer ensures compatibility even with older RIPs in the workflow. This can easily save several thousand Euros on RIP upgrades. Production re-liability is substantially improved, as color settings no longer need to be made on the different RIPs. Color management is handled centrally by GMG ColorServer. The color management functions of the existing RIPs can safely be deactivated.

### Rapid creation of high-quality profiles

The great variety of different substrates means that new, individual profiles have to be created all the time in large-format printing. Similarly, regular calibration of the output devices is necessary in order to guarantee reproducible results, and thus constant quality.

GMG SmartProfiler and a corresponding measuring instrument enable users to very quickly and easily calibrate a wide range of large-format printers, and create their own, high-quality Color-Server

profiles. No in-depth knowledge of color management is needed for this purpose, since the software provides a wizard.

### Too much ink?

Software solutions like GMG InkOptimizer allow printing companies to reduce the consumption of chromatic inks per job, in that these inks are replaced by black without negatively impacting the image quality. The result is a lower level of ink application, reduced ink consumption, and less of a burden on the environment.

Rainer Schmid, the man responsible for quality assurance at Stiefel Digitalprint says: »As a re-sult of using GMG InkOptimizer, an ink-saving potential of between 10 and 15% became appar-ent after just a short time. So, the investment quickly paid for itself. In addition, we saw that

the lower level of ink application also has other advantages. The image definition in the shadows is pre-served far better.

And we can start varnishing certain print jobs sooner, because the solvents evaporate faster. The lower level of ink application also results in reduced energy requirements for IR and UV drying, as well as improved through-drying.«

### Replacing subjective color impressions by objective ones

The color management solution from GMG means that successful implementation of color management in large-format printing is no longer a complicated matter. With GMG ColorServer, the user departs from a subjective approach, based on his judgment, and arrives at an objective result that allows different operators to output the same file on different printing systems and still obtain identical results.

