

Automatic color conversions for more efficient workflows

The processes of color conversion, scaling, sharpening, separation, and optimization of pixel and PDF data can be executed fully automatically via hotfolders using GMG ColorServer.

CMYK-to-CMYK conversion

One of the outstanding functions of GMG ColorServer is its fully automatic CMYK color conversion. This is used to convert CMYK data from one standard – industry standards, such as GRACoL, PSR, ISO, and 3DAP, or in-house standards – to another industry or in-house standard and allows incoming image data that were received from different sources to be “normalized” to a single, uniform standard. Similarly outgoing data can be optimized for multiple output processes, respective of the specific printing process or condition. Besides color conversion GMG ColorServer offers the possibility to reparate the entire document. With the reparation of image and vector objects in CMYK documents it is ensured that the printed results are separated homogeneously and consistently and thus offer better print results.

4D color management from GMG ensures identical printing results

GMG ColorServer was developed by GMG in collaboration with leading printing companies and publishers and is based on GMG's 4D color management. The software computes the original and target values directly into CMYK – without the detour via a LAB color space. This way the integrity of the black channel in the original data is retained in its exact proportions in the transformed, target CMYK color space, ensuring that the visual impression of the output remains identical. An ICC device profile approach cannot lead to the desired result considering that the color space conversion used by the CIE Lab is three-dimensional and lacks information about the black channel generation (fourth color) required for accurate color conversions.

RGB-to-CMYK conversion

RGB files are often delivered unprepared for printing. The RGB files are placed in a hot folder and processed according to the parameters defined for this hot folder e.g. scaled, sharpened and separated. The GMG separations are much smoother compared to those made with ICC profiles leading to less problems during printing. The separations generated by GMG are far more accurate than the ones produced using ICC, with less problems during the printing process.

RGB-to-RGB conversion

RGB files may be converted within different standard RGB color spaces like Adobe RGB 1998, ECI-RGB or sRGB. This is particularly useful in standardizing RGB data in prepress and as well web and display-based applications.

PDF-to-PDF conversion

In addition to the handling of pixel data, it is also possible to manipulate PDF files for both CMYK-to-CMYK and RGB-to-CMYK conversions. When converting PDF files, the RGB images within the PDF file can be automatically scaled, sharpened and separated. It is not necessary to revert to image and layout applications during the document creation process.

Significant cost savings through accelerated work processes

The extended hot folder technology allows to automatically detect embedded profiles and conversion with the respective GMG profiles resulting in large and continual cost savings.

Standard and individual profiles

Working with standard profiles gives the possibility to start immediately the production, using reference profiles extensively tested and certified by GMG. GMG ColorServer is shipped with a large amount of profiles for various industry printing standards. If individual profiles are needed, ProfileEditor which is included in the package may be used to create and edit GMG 4D color profiles. GMG profiles can be self created for conversion from RGB to CMYK as well as from one CMYK printing standard to an in-house standard or vice versa. The GMG Gamut Mapping takes care of the optimal conversion of colors both in visual and colorimetric regard. The aim is to maintain the color appearance of the original colors even when printed on different paper types.

Wide range of applications and industries

The flexibility and versatility of GMG ColorServer is demonstrated by the wide range of customers that includes agencies with their own prepress departments, repro houses and prepress businesses, printing companies of all types, as well as newspaper, periodical and book publishers.

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

GMG ColorServer Technical Data

Software requirements		Product features	
Operating system	Microsoft Windows 2000, Microsoft Windows 2000 Server, Windows 2003 Server or Windows XP Pro	Advantages cont.	Maximum degree of automation due to hotfolder technology Use of original, or adaptation of the gradation curves for spot colors by procession of PDF documents Further processing of PDF documents as PDF/X-3 or X-1 document including incorporation of the output intent Integration in all workflows using separate or combined processing with GMG color profiles and ICC profiles Cost savings due to standardization, workflow optimization and shorter production times
Hardware requirements		Software components	GMG ColorServer Pro
Processor	Dual CPU Intel Pentium Xeon or Pentium IV with 3 GHz or higher	Input formats	PDF (up to 1.4), PostScript, TIFF, TIFF-IT, JPEG, CT/LW, EPS (Photoshop pixel data)
Main memory	Minimum 1 GB RAM	Output formats	PDF (PDF-to-PDF only), TIFF, TIFF-IT, CT/LW, All-in-CT
Product features		Supported languages	English, German, French, Italian, Spanish, Portuguese, Polish, Chinese, Japanese
Advantages	Fully automatic, top-quality color conversion CMYK-to-CMYK conversion, retaining the properties of the black channel Reseparation to harmonize the separation of the entire print job Reduction of the total color coverage within a color space ICC profiles are also supported Automatic scaling (adjustment of the resolution), sharpening and separation of RGB data Separate processing of pixel and vector elements within a document PDF-to-PDF conversion, including scaling, sharpening and separation of embedded RGB data Conversion of RGB data (Adobe RGB 1998, ECI RGB, sRGB)	Included components	GMG ColorServer on CD Profiles for common standards, such as PSR, ISO, SWOP, GRACoL, Japan Magazine & Publishing Standard Color (JMPA color), 3DAP, sRGB, Adobe RGB 1998 and ECI-RGB USB Dongle

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