

# Definitely digital in Frankfurt

Eichhorn is a German pre-press company that's adopted three Konica Minolta bizhub Pro 6500 digital presses. By paying careful attention to colour management and grey levels it claims these can match offset print quality.



Robert Eichhorn (right) with his creative and production team.

**B**ased in Frankfurt, Germany, Eichhorn is a modern pre-press company employing 20 people which has adopted digital colour production printers in the form of three Konica Minolta bizhub Pro 6500 machines. With its pre-press experience, the company is well aware of the need for colour management and it reckons it has developed this to the point where its digital print quality matches offset levels.

To do this it uses an end to end colour standardisation system based on GMG's colour management software modules, ColorServer and InkOptimizer. These handle fully automated colour conversions and grey component replacement. The same system and colour standards are used for the company's in-house digital print as for the product catalogue and brochure files that it sends to third party printers all over Europe.

'Easy. Efficient. Definitely digital,' is the English translation of the company slogan. 'Homogeneous printing results are vital for our customers,' says the owner Robert Eichhorn. 'We ensure a consistent printing quality with GMG software, regardless of location.'

He reckons that guaranteed colour quality helps to generate customer loyalty, but just as important it brings in new business. The advantage is being able to achieve offset quality but with the additional digital advantages of economical short runs, quick response and fast turnaround, as well as variable data printing if

required. Short run jobs, such as image brochures, flyers or calendars up to 2000 copies are obvious candidates for digital. By hitting high quality standards the company finds it is now a potential short-run or short-notice supplier for sheetfed print businesses and for advertising agencies. It's also now preparing to adopt web to print for online ordering.

However, getting to this point wasn't effortless. 'The system that we have that works so smoothly was incredibly hard work to set up,' said Mr Eichhorn. He first decided to invest in digital printing two years ago. With image quality at the top of his priority list, he went to almost every digital press manufacturer, taking proofs produced with his existing GMG ColorProof software on Epson printers, and asked if they could match its standard.

The result was disappointing, he says, as no digital printing press got anywhere near his required results. Product images from his jobs for the entertainment industry in particular posed a real challenge, as they contain a high proportion of grey and black, which caused problems with the grey balance.

Finally he turned to GMG, whose ColorProof software he was happy with. Uwe Busch, technical team leader at the local GMG sales partner ComPlott Papier Union, took on the challenge of finding Eichhorn exactly what it was looking for. GMG ColorServer and GMG InkOptimizer colour management modules were tested with the Konica Minolta bizhub

Pro C6500. 'Only GMG colour management software enabled the digital press to produce optimal prints,' said Mr Eichhorn. 'Without it, the quality that was critical could not be achieved.'

He says he does not understand why colour management software is not the first choice for everyone and finds that grey component replacement is particularly important. The time spent on manual image editing is reduced to a minimum and problems due to an unstable grey balance have been virtually eliminated.

He sums up the benefits of colour management in pre-press as: 'What took a whole day of image editing now only takes two hours.' ■

## How Eichhorn's colour management works

All the colour management for Eichhorn's bizhub Pro 6500s and for files supplied to other printers is performed by GMG ColorServer software, which overrides the Pro 6500s' own RIP settings. ColorServer converts incoming RGB or CMYK image data from all sorts of sources to a uniform standard (mostly ISO Web Coated and ISO Coated v2). Depending on the file it may separate, recombine or convert colours fully automatically. For CMYK-CMYK conversions ColorServer uses the same 4D (four-dimensional) DeviceLink profile system as GMG's ColorProof. This preserves black and pure colour information.

Following this conversion, the job file is automatically optimised for print without changing the colour appearance, using GMG InkOptimizer. This analyses separations and applies under colour removal techniques to standardise the grey balance and total toner (or ink) coverage across all images. It has the twin benefits of reducing toner consumption by about 20% while making the colour more stable during printing. This is a key part in Eichhorn's claimed ability to match offset quality.

InkOptimizer is also used on the files supplied to outside printers, which likewise helps to stabilise the print and help to achieve a common standard.