

Four Steps to Standardize Color in the Printing Process

COLOR MANAGEMENT. Kochendörfer printers have standardized their printing processes. As was to be expected, two components proved to be indispensable on the way: efficiently functioning color management, and process control.

Since being established as a one-man operation in 1959, the Kochendörfer sheet-fed offset printing company in the Southern German town of Vellberg has steadily grown to reach its current size with 25 employees. The family-run business is now in the second generation and managed by Wiebke Bisswanger and her brother, Felix Kochendörfer. They attach great importance to two things: on the one hand, dedicated and motivated staff, who are trained in-house, and, on the other hand, investment in modern technology in order to safeguard the company's potential for continuous growth.

The management has consistently adopted a progressive approach: from hand composition, hot-metal composition and filmsetting to CtP output, from monochrome DIN A4 copies to multicolor, large-format copies, from letterpress to offset printing, from a monochrome press (24 x 36 cm) to today's five-color press (50 x 70 cm) with integrated varnishing unit. The common print jobs to-day still include typical com-

mercial printwork, such as visiting cards, headed paper, blocks of forms, newspaper inserts, flyers, and product catalogs in short and long runs (500 to 50,000).

MODERNIZATION. The company reacted to changing customer requirements by investing in a more powerful printing press (Heidelberg Speedmaster SM 74) about a year ago, and by introducing standardized printing processes. One thing is clear: the company intends to continue producing top quality at favorable prices in the future. But as a business, they nevertheless have to remain profitable. For Kochendörfer, standardization means real cost cuts and a simultaneous improvement in printing quality. Also, the printshop's range of products and services is automatically expanded as a result.

Color management and process control are indispensable elements of standardized print production. So, even before the press was purchased, it was clear that it would only be put into service in conjunc-

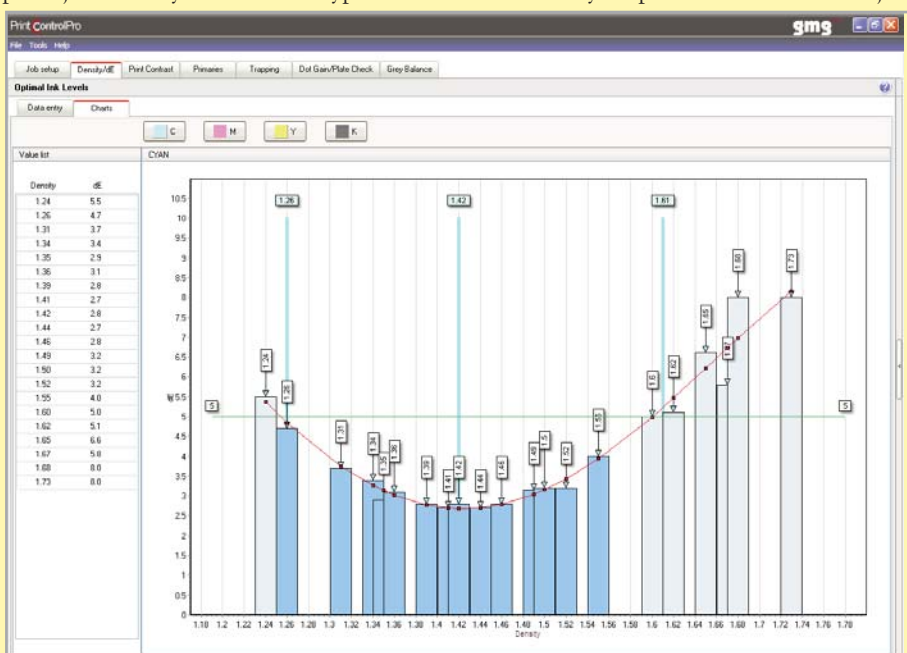
tion with optimally functioning color management. In this respect, Wiebke Bisswanger and Felix Kochendörfer received professional assistance from their long-standing partner in IT and prepress matters, Schwabe+Braun Netzwerke GmbH in Leonberg. The aim and the outcome was standardization based on a complete solution from a single source (GMG). Oliver Weger, Senior Printing and Prepress Consultant at Schwabe+Braun, supervised the entire software installation procedure, the setup of the printing press according to DIN ISO 12647-2, and the staff training at Kochendörfer. Being an expert on color management and standardization in offset printing, he knows what really counts.

From prepress to printing, all the staff have in the meantime been integrated in a color management workflow that ultimately enables the standardized print production according to the ISO standard that Kochendörfer was aiming for. So, what exactly does that mean in day-to-day practice now?

WORKFLOW. A mere four steps were necessary to be able to print according to the Process Standard Offset (PSO) and, at the same time, cut the handling times throughout the entire production process. Even today, the prepress stage still plays a key role in this context, specifically the assistance provided by the GMG software solutions used, since it has to be assumed that the data received from customers are based on a wide variety of data formats and color spaces.

■ Step 1: GMG ColorServer is first used to automatically separate RGB data and convert CMYK data from one color space to another in order to obtain printing data complying with a uniform color standard according to ISOcoated_v2 or ISOuncoated. GMG's DeviceLink technology avoids typical restrictions that can occur when using ICC profiles, for example.

■ Step 2: The standardized data are subsequently proofed in accordance with the targeted printing standard using the GMG DotProof proofing software for digital halftone proofs in combination with an Epson Stylus 7800. The contract proof is then verified with GMG ProofControl, i.e. quality control is performed on the basis of the defined standard by measuring the control strip, in order to bindingly define



Display of wet density and color deviation from the target value in GMG PrintControl.

the subsequent printing result.

■ Step 3: GMG InkOptimizer is used for automatic ink reduction, the chromatic CMY components being partially replaced by black. Special ink reduction algorithms ensure that the color impression remains unchanged. The printing properties are, however, greatly improved (e.g. as a result of the smaller ink film thickness).

■ Step 4: Finally, if the press prints in accordance with ISO 12467-2, there is almost nothing more to stand in the way of a »perfect« printing result. The right measuring equipment and the GMG PrintControl software bring users close to this goal. To check the printing process, the printer uses GMG RapidCheck to determine whether the press is printing in accordance with the standard. Control wedges are quickly measured, and printing parameters checked, to this end. In the event of deviations, the printer immediately corrects the parameters on the press with the help of PrintControl. All important parameters, such as CtP curve, optimum printing density, ink acceptance, dot gain, gray balance

printing under control for the first time in a really narrow quality corridor,« reports printer Kemal Tekin. »Proofing and standardization make the entire process easier and more controlled,« he adds. Managing Director Wiebke Bisswanger gets the impression that the self-confidence of the staff as they go about their work has also grown enormously. »They at last have the feeling and the certain knowledge that they can together produce documentable quality.«

Cost savings are noticeable at many other points. Standardization of the printing data by Color-Server already significantly reduces the time taken by the staff to prepare the printing data. Ink reduction has great advantages for Kochendörfer: for instance, the printing quality and printing properties are improved, the printing process as a whole is stabilized as a result of the more stable gray balance, and it takes less time to get the right colors on the press – a major advantage in view of the continuing trend towards ever-shorter run lengths. In addition, the amount of waste

CEO nimmt Auszeit

Apple ohne Jobs

Apple-CEO Steve Jobs hat sich in einer an die Mitarbeiter adressierten Mail, welche auch auf der Website des Herstellers veröffentlicht wurde, erneut zu seinem Gesundheitszustand geäußert. Darin kündigt er an, sich bis Ende Juni aus dem operativen Geschäft zurückziehen, um sich ganz seiner Genesung zu widmen.



Tim Cook

Kurz vor der Macworld-Messe in San Francisco berichtete er noch von einer hormonellen Störung, die einer einfachen Behandlung bedarf, welche bereits eingeleitet wurde. Die Lage ist nun doch komplexer als angenommen. In der letzten Zeit wurde viel über den Gesundheitszustand des charismatischen Apple-Chefs orakelt. Auslöser dazu waren die letzten Auftritte von Steve Jobs, auf denen er sichtlich abgemagert auf der Bühne erschien. 2004 wurde bei Jobs Bauchspeicheldrüsenkrebs diagnostiziert und erfolgreich behandelt. Krebs an diesem für Verdauung und Nahrungsaufnahme elementar wichtigen Organ ist in den meisten Fällen tödlich, Jobs hatte damals Glück. Inwieweit die nun festgestellten »hormonellen Störungen« mit neuerlichen Beschwerden der Bauchspeicheldrüse zusammenhängen, wurde nicht näher ausgeführt. Es fällt jedoch schwer zu glauben, die Ärzte hätten nach einer Bauchspeicheldrüsenoperation hormonelle Auswirkungen nicht unter ständiger Beobachtung. Schließlich liefert die Drüse die wichtigen Hormone Insulin und Glucon. Das operative Geschäft bei Apple übernimmt COO Tim Cook.

Linotype Fontexplorer X Pro

Fonhandling für Mac

Linotype präsentierte zur Macworld in San Francisco eine neue Version der Schriftverwaltung Fontexplorer X Pro für den Mac. Neben neuen Funktionen und Kompatibilität in Sachen automatischer Schriftaktivierung mit aktuellen Applikationen wie Indesign/Photoshop/Illustrator CS4 und Quark Xpress 8, erweitert Linotype die Programmserie mit einer Serverversion. Diese erleichtert das Fonhandling in Gruppen und verbessert den Überblick über die aktiven Schriftlizenzen. Gleichzeitig verabschiedet sich Linotype von der kostenfreien Abgabe des Fonttools, die Desktop-Variante kostet nun 80 Euro, bis Ende Februar nur 40 Euro. Eine 30-Tage-Testversion steht zum Download bereit: www.fontexplorerx.com.

Printer Kemal Tekin (left) with Lars Braun, Managing Director of Schwabe + Braun Netzwerke, and media designer Peggy Schirle at the central control console of »his« printing press. The decisive foundations for the standardized printing process are laid in Kochendörfer's prepress department, where all printing data undergo professional color management.



and color space, are determined here and displayed in graph form. Sources of error can thus be located immediately.

WHAT OTHER BENEFITS ARE THERE? Kochendörfer is also increasingly benefiting from the advantages of digital proofing. Since many customers do not so far bring proofs with them, the printers now also see to quality control. When working with agencies and other customers, the digital contract proof offers a basis for communication that is binding for both sides. With the proof in their hands, the printers, too, now know exactly what the desired printing result is supposed to look like, and can react correspondingly faster to deviations. Since PrintControl and RapidCheck have been in use for process control in conjunction with »his« printing press, »I've got

produced is substantially lower, the drying times are shorter, and less powder is used – meaning that finishing can start sooner. And on top of all that, ink consumption is reduced, too.

CONCLUSION. Wiebke Bisswanger and Felix Kochendörfer have successfully launched their »Project Future«, together with their long-standing partners from Schwabe+Braun Netzwerke. »We were definitely a bit worried at the start, given the major changes that the staff would face as a result of our decision to go for standardization virtually from scratch,« says Wiebke Bisswanger. »But we've overcome all the difficulties since then, and we all share an absolutely positive outlook on the future.«

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