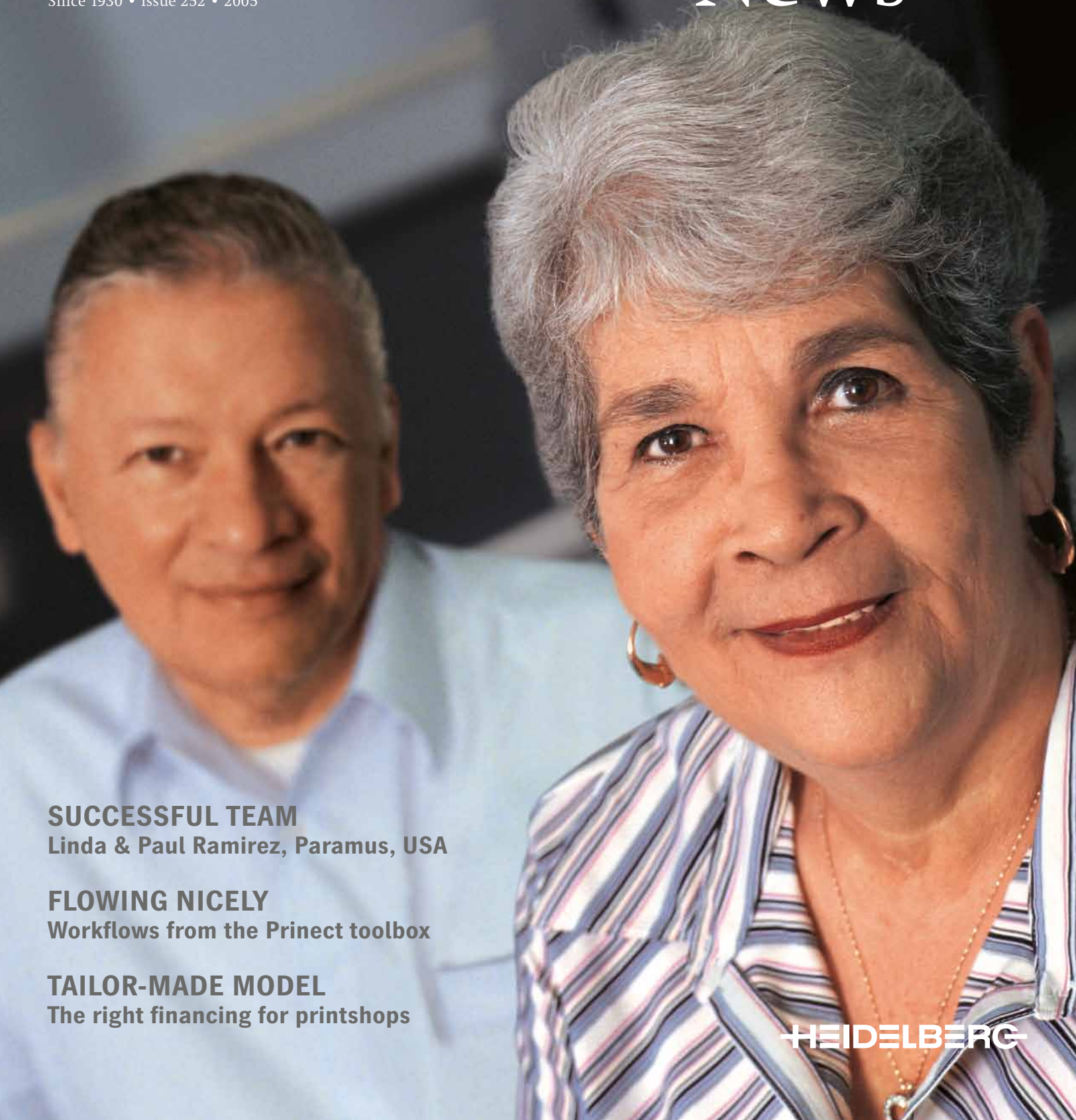


Heidelberg

News

The customer magazine
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SUCCESSFUL TEAM

Linda & Paul Ramirez, Paramus, USA

FLOWING NICELY

Workflows from the Prinect toolbox

TAILOR-MADE MODEL

The right financing for printshops

HEIDELBERG



Dear Reader,

Many small and medium-sized printing companies in particular contact us with questions about the advantages and disadvantages of workflow solutions. Some have preconceptions about these systems, believing them to be too expensive, too complicated or too large. Many of these printers still seem to lack a full understanding of the benefits they can derive, which include optimization of their business processes and a rapid return on their investment. Focusing on the process optimization aspect, this issue takes an in-depth look at each of our Prinect modules, calculates the payback time for example investments, and presents the Munich-based Color-Gruppe, which has successfully leveraged Prinect to integrate its four companies.

We also acquaint you with the business models of PIP Printing in the USA and Cezar Ltd. in Poland, weigh the pros and cons of different financing options, tell you all about our new generation of long perfectors, and go into detail on the Speedmaster XL 105 press. Last but not least, our new ‘Tips & Tricks’ section provides a few valuable pointers on how to use various Prinect modules. Please let us know if there is any other information or advice you would like to find in the Heidelberg News. We appreciate your feedback and comments.

Thank you very much!

B. Schreier

Bernhard Schreier
CEO, Heidelberger Druckmaschinen AG

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CEZAR LTD., POLAND

Targeting international markets

Cezar Ltd. is headquartered in Bialystok, around 200 kilometers (124 miles) northeast of Warsaw, not far from the Polish-Belorus border. For twelve years, owner Cezary Nazar has steadily grown his printing company by supplying high-quality coated labels. Now, thanks to a new Heidelberg Speedmaster CD 102 Duo, Cezar is focusing to a greater extent on international markets.

The Cezar print shop embodies the ambitions of up-and-coming Poland. It is a young company that is working hard to achieve success. Its workforce has grown from six at the start of the 1990s to 230 today. These employees are based at headquarters in Bialystok, the capital of the Polish province of Podlasie, and two other sales and prepress sites in Warsaw and Gdansk. Cezar's growth is also reflected in its sales. Its annual sales volume of 15 million euros (about 19.78 million U.S. dollars) today is ten times the level in 1995. But Cezary Nazar isn't about to rest on his laurels. His vision is for the company to become one of the leading print companies in Europe and play a pioneering role in technological terms. As part of this project, he plans to double the workforce by 2010 and increase annual sales to 100 million euros (about 132 million U.S. dollars). In addition to label printing, which accounts for well above of 50 percent of total sales, his strategy for the future calls for diversifying into high-end packaging.

The print shop's main customers are Diageo and the SPI Group, both of which rank among the world's leading suppliers of spirits, as well as cosmetics and toiletries producer Gillette. "Specially configured presses and a lot of technical expertise are essential for winning multinational corporations as customers," says Cezary Nazar. It usually takes months of preliminary discussions and many intensive quality audits to convince demanding customers like them. Cezar has been producing more than a billion labels a year for global brands such as Smirnoff and Moskovskaya, as well as for special types of vodka like Stolichnaya, Stoli Flavored and Kaznacheyskaya. These labels are elaborately finished using UV coatings and gold and silver foil. Holograms and security stamps help protect the brand-name products from plagiarists. Labels printed in Bialystok are primarily destined for Russia, Latvia, Lithuania, Germany, the UK, Belgium and Slovakia. The company's own fleet of six trucks ensures that the print products reach their destinations on time.

Investing in the future. A quick look around the print shop building shows that Cezar has nothing to fear from its international competitors. Equipped the latest machinery for prepress, press and post-press, the company works three shifts to produce high-quality labels, in-mold labels and sophisticated packaging. The latest investment was in a Heidelberg Speedmaster CD 102-LY-6+LYL, which began producing in October 2004 alongside an older Heidelberg Speedmaster

For Cezary Nazar, the key to success is "competence in print."



74-6+LX. Talks were held with various press manufacturers prior to making a purchase decision. "We needed a powerful offset machine for inline production of highly finished print products that would deliver long-term advantages and sales arguments for us in terms of quality, flexibility and cost-effectiveness," says Cezary Nazar. The configuration of the press was agreed on during the course of intensive negotiations with Heidelberg. Step-by-step, Heidelberg came up with customized specifications for the Speedmaster CD 102 Duo with flexographic printing units before and after the offset units and an additional CoolCure UV inertization unit for inline production, which was tested during an intensive trial phase in Germany.

This month-long process resulted in a 40-inch press that doubles Cezar's previous print capacity and has opened up additional opportunities for inline production and finishing. "13,000 sheets an hour and flexographic units before and after the six offset units represent a quantum leap for us in terms of production," states Nazar. The new press can handle a wide range of inks and coatings – from conventional inks, aqueous coatings and UV inks and coatings to Metalure and pearlescent pigments – either alone or in combination. Cezary Nazar: "This configuration lets us execute sophisticated finishing quickly and cost-effectively in a single pass while achieving top quality." A large spectrum of printing stocks is also supported. The CD 102 Duo can handle board with thicknesses of up to a millimeter (0.04 inches), as well as coated, uncoated and metallized papers, laminates and foils. "We are leveraging this flexibility for different substrates and inks to win new customers and orders. We use creative designs and print samples to demonstrate what we can achieve. This allows us to emphasize our print expertise and stimulate new demand," continues Cezary Nazar. Besides the niche-based strategy ►



“You need a lot of technical expertise to win leading global companies as customers.” Cezary Nazar

with label and in-mold printing, which accounts for more than 50 percent of sales, the capacity of the new press will be increasingly harnessed for packaging and commercial jobs. “The investment will pay for itself within five years,” says Mr. Nazar confidently.

CoolCure for more efficient processes. A nitrogen tank behind the print shop building points to another special feature of the Speedmaster CD 102 Duo at Cezar: the press has also been equipped with a CoolCure UV inerting system. Jointly developed by IST-Metz and Heidelberg for oxygen-reduced printing, it seals off the chamber between the UV dryer and the substrate. Nitrogen is then blown in to replace the reactive oxygen. UV inks dry faster and more thoroughly as a result. As an added benefit, it permits lower dryer output levels to save energy.

“Using CoolCure lets us significantly speed up production and finishing. Not even temperature-sensitive materials present difficulties, because there aren’t any material distortion or register problems,” reports Nazar. Another advantage of CoolCure is optimized hardening of opaque white: “We achieve excellent results, even with thick coatings.” Any questions about the costs of the nitrogen and the storage tank are greeted by a smile from Nazar: “Considering how much more efficient production is now, the costs are more than reasonable – even the monthly cleaning bill for the pressroom is considerably higher.”

Winning over new customers. Cezary Nazar is confident that he will succeed in utilizing the full capacity of his new coater by landing more packaging jobs as well as time-critical commercial jobs from large companies. The first signs of success have already become apparent since the press began running in October 2004. “We had been in contact with Gillette for quite a while and were waiting for a chance to demonstrate what we could offer them,” explains Nazar. When Cezar finally got this opportunity, the new “Duo” enabled the

company to take on a rush job for Gillette: an item for an advertising campaign for the new M3Power shaving system featuring British soccer star David Beckham. The data for the job was provided on a Wednesday, the actual printing was completed by the Saturday, and the finished advertising materials were being used in London on the following Monday. “This was only possible because we could produce the entire job in a single pass on our new press,” says Nazar by way of explanation.

To drive forward research and development and monitor the quality of production, Cezar has its own laboratory with a staff of 20. This facility performs tasks such as mixing and filling the special inks and coatings used in print production. Cezary Nazar: “Our requirements vary so much and can change at such short notice that we’re more flexible by producing special inks ourselves. This also lets us keep our knowledge of ink formulations and especially hybrid inks (which combine conventional and UV inks) in-house. We only buy basic inks – from Sun Chemical.” The Cezar lab also produces and tests the print properties of laminates.

Spirit of innovation as a marketing strategy. Investments in printing technology such as the Heidelberg Speedmaster CD 102 Duo are a key part of Cezar’s marketing strategy. Potential applications of the latest printing technologies are the main theme of many events that the company organizes in Warsaw: “We invite selected representatives of large international companies, agencies and label and packaging designers to discuss innovative technologies and products and demonstrate what our company can do,” says Nazar. For other matters, Cezar relies on professional support from international advertising and PR agencies. This doesn’t mean, however, that Nazar isn’t involved in the PR side of things: “Professional marketing is vital, but so is ensuring customer loyalty through personal contacts – which is why I spend so much of my time visiting customers.” Nazar rejects the commonly held notion that Eastern European printing companies can only stay competitive by keeping wages down: “The key to our success is ‘competence in print’. Successful negotiations with international customers depend not only on good prices, but also on modern printing technology, technical expertise and a consistent focus on quality.” ■

Facts & Figures

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The pressroom at Cezar (top) and Agnieszka Ambrozej (middle), employee in the company’s in-house lab, which researches and produces special inks and coatings.

The quality has to be right: Marcin Falkowski inspects the printed sheets.



PIP PRINTING, USA

Successful team

The print shop of Linda and Paul Ramirez in Paramus, New Jersey in the United States specializes in fast production of short runs. A family-run business belonging to a large franchise chain, the company’s success is based on healthy customer relationships, high quality, good service, and – above all – strong partners. Now a new Printmaster QM 46-2 promises to boost that success even further.

Over the phone, Linda Ramirez, 64, sounds dynamic, friendly and full of life. Meeting her in person at the print shop, it soon becomes apparent she’s an astute businesswoman, too. Success was never something this former teacher has been able to take for granted, and she has worked hard to secure it. After teaching for 20 years, Linda Ramirez had to start looking for a new job in 1983. She still felt far too young to start claiming her retirement pension. Instead, she looked into the possibility of buying into a print shop with the franchise chain PIP Printing & Document Services, and that was how she entered the printing business and ended up in Paramus, about 15 km (9,32 miles) west of New York City in the U.S. state of New Jersey. “In the beginning, I knew next to nothing about the printing business,” Linda recalls. But thanks to strong partners, her new business turned into an almost unbelievable success story. One of those partners, in the most literal sense of the word, is her husband Paul, who has been helping Linda in the print shop since 1989.

Linda and her husband Paul are the joint managing directors of PIP Printing & Document Services. Their full-service print shop specializes in digital and offset printing and works exclusively for local businesses. The customers receive their finished product from a single source, since everything is finished in-house. And providing this service pays off, as Linda explains: “Since we took over the print shop, we have concentrated on promoting customer relations. We’re very proud of the fact that many of our customers have been with us for 20 years.” With her eleven employees, she mainly produces flyers, brochures, stationery and postcards in runs of between 1,000 and 10,000 copies.

Top quality even on very short runs. “Quality is very important to our customers, and we owe our success to the high standard of our machines and the expertise of our staff,” says Linda. In early 1996 they installed a Printmaster QM 46-2. This press served Linda and Paul well, turning out a total of 25 million impressions. But after eight years it was time for a new machine. The two print shop owners were so pleased with the performance of the “old” Printmaster that the decision to acquire a new Printmaster was not a hard one.



Linda and Paul Ramirez, the two Managing Directors of PIP Printing & Document Services in Paramus, USA.

They bought the latest model of this series last October. And because it was the 10,000th Printmaster that Heidelberg had built, there was even an official press handover ceremony at the GraphExpo 2004 trade show in Chicago.

Cost-effectiveness – automatically. Extremely short makeready times make the new Printmaster especially attractive for quickly producing short and very short runs. Up to twelve different jobs are printed daily on this press in Paramus. All high-quality products, the vast majority of them two-color rush jobs, are processed on the new Printmaster. A second press handles the rest of the jobs. With its excellent print quality, user-friendliness and small footprint, the Printmaster is the perfect press for Linda and Paul Ramirez. “The Printmaster QM 46-2 is ideal for the type of work we do and fits perfectly to our job mix,” says Paul. “We would like to increase our sales further, and this more modern press will help us do just that,” he adds. Automatic plate changing with AutoPlate and central format



The print shop at PIP Printing: Scott Lynch of PIP Printing works at the new Printmaster QM 46-2. Jose Pagan packs the finished products (left to right).

setting for the feeder and delivery make it even more productive. Makeready is also speeded up by automatic blanket washup and on-the-fly register adjustments. This in turn lowers production costs. The couple’s decision to purchase another Printmaster was also due to their good relationship with Heidelberg: “Heidelberg was there for us right from the start with excellent service and advice, and quickly became a valuable partner,” says Linda.

Printing within the franchise system. Linda and Paul are successful franchisees of PIP Printing & Document Services based in Mission Viejo, California. The average annual sales of a PIP franchise print shop amount to around half a million U.S. dollars (379,305 euros). The principle is the same as in the better-known McDonalds and Burger King franchises. The franchisee is one of many companies within the same chain, but remains legally independent. Its economic success therefore depends mainly on its own hard work. The franchiser is always in the background, however, providing product, service and management support. Typical companies in the PIP franchise are small and medium-sized businesses specializing in small-format offset printing. Many of them also use small presses like the Printmaster QM 46-2. “Our franchisees are very impressed with Heidelberg products and services,” says Catherine Monson, the president of PIP Printing & Document Services. She is delighted with the achievements of Paul and Linda Ramirez: “We’re very glad to have franchisees like Paul and Linda who pass on the added value of the franchise system to their customers,” she says. “Our goal is to offer, through our franchisees, solutions that are individually tailored to customers’ needs.”

The companies in the franchise system also have good relationships among themselves. Linda and Paul gave their old Printmaster to another print shop they’re friendly with in the franchise chain, where it can continue producing for another few years. “That means it stays in the family and keeps promoting the image of the whole franchise chain, which includes our print shop, with the quality of what it produces,” says Linda with a smile. The franchise system is a strong partner for the print shops under its umbrella, like that of Linda and Paul Ramirez.

When she first opened her own print shop more than twenty years ago, Linda didn’t really know what to expect. But her courage and business acumen have paid off. She hasn’t regretted her decision for an instant. Since joining the PIP franchise chain, she and her husband Paul have enjoyed greater success than ever before. ■

Facts & Figures

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PIP Printing & Document Services

PIP Printing & Document Services, founded in 1965, is the leading franchiser for solutions from the print and business communication sector. There are a total of over 300 PIP franchise centers throughout the United States, plus a few in the United Kingdom. This makes it the largest franchiser in the U.S. Sir Speedy, PIP Printing & Document Services and Multi Copy are the chain’s brands. Its portfolio includes digital services, online order services and state-of-the-art technologies that allow companies to draft, order and manage documents anywhere at any time.

For more information, visit: www.pip.com

COLOR-GRUPPE, GERMANY

A fine-tuned network with many added extras

The four companies that make up Color-Gruppe (“Color Group”) share premises in the south of Munich, the capital of Bavaria. Color-Medienservice, Color-Offset, Color-Press and Color-Falz are innovative full-service providers covering the entire media production process from the design stage all the way to printing and finishing. Integrated workflows ensure end-to-end processes and seamless communication.

Color-Gruppe had its origins in Color-Offset, a traditional print shop established in Munich’s Sendling district in 1975. Today it is one Germany’s leading providers of print media production services. “We can offer almost any service our customers care to name, handling everything from coming up with an initial idea and developing the concept all the way to print production and logistical support,” explains Peter Wagstyl, one of the group’s two managing directors.

Color-Gruppe sees itself as a one-stop media shop offering comprehensive services for all aspects of corporate communications. Its integrated creative agency treats its customers as partners and assists them with everything from the initial idea to the finished product. “We combine original ideas with innovative production processes to ensure that the image the customer presents to the market has exactly the desired effect,” says Christian Leuthner, media solutions manager and creative contact for Color-Gruppe. This all-inclusive philosophy shapes how all parts of the group think and work. “For us, networking doesn’t begin with the workflow. It starts

with our commitment to making sure that all of our customers’ needs are met,” explains managing director Peter Wagstyl.

Pioneers in “networked thinking”. The group was divided into the four limited-liability companies – Color-Medienservice, Color-Offset, Color-Press and Color-Falz – to reduce the business risks involved. The finishing division, now Color-Falz, was founded in 1987 as a pilot spin-off and has since been an independent bookbinder that handles in-house print orders for the group. It also utilizes its spare capacity by taking on additional finishing jobs from outside customers.

The same principle applies to the creative and prepress services offered by Color-Medienservice and the digital printing operations of Color-Press. “This arrangement means that all the companies in the group can operate flexibly and generate additional sales,” says Wolfgang Huber, Color-Gruppe’s other managing director. The group’s success shows that its approach is right on the button. It employs around 110 people and achieved total sales of over 14 million euros (18.5 million U.S. dollars) in the 2004 fiscal year.

Owing to its structure, it is extremely important for Color-Gruppe to ensure that the interfaces between its various divisions – and thus between the value-creation stages of its print media production process – facilitate rapid, smooth order processing. “When it comes to billing costs and services, we need effective and truly transparent processes to help us precisely account for the contribution made by each individual company,” explains Wagstyl.

Prinect solutions from Heidelberg provide a clear overview of operations and ensure efficient workflows. They integrate the entire production process from the time a job is taken on to the moment it is delivered. Only a few companies in the world began considering the issue of networking as early and consistently as Color-Gruppe did. “We’ve been considering the technological opportunities for networking our processes since the mid-1990s,” explains Wagstyl. After intensive exploratory talks with Heidelberg, the group began turning its thoughts into tangible plans in 1998. “At that time, we founded Color-Medienservice GmbH as a prepress service provider, and used Prinect solutions to shape this new division with the future in



“Successful networkers”: Peter Wagstyl, Ralf Paringer, Michael Gröll, Christian Leuthner and Wolfgang Huber, the management team of Color-Gruppe, shown here under the roof of the Olympic Stadium in Munich, Germany (left to right).



Marco Friedrich and Stefanie Bezdán of Color-Medienservice GmbH, which leverages Prinect solutions with an eye to a successful future.

mind,” explains Michael Grüll, Managing Director of Color-Medienservice GmbH. “We were fascinated by the notion of being able to process a job from costing right through to finishing and delivery without having to enter customer data and specifications more than once,” remembers Grüll, a typesetter by profession who is responsible for all networking projects.

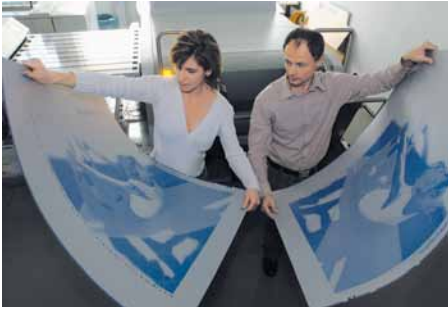
End-to-end workflows in place. Color-Gruppe adopted a truly professional approach to the whole project, developing a networked system environment based on its own business model. “We paid particular attention to rigorously allocating costs and benefits,” explains Wagstyl. For example, if a new order is received and saved in the management information system maintained by Color-Offset GmbH, it can be processed by any of the group’s four companies without the need to input any data again. Prinect facilitates a seamless flow of job data and processes. The data exchange format used by the software applications and machinery is JDF (Job Definition Format). In the prepress stage, Color-Gruppe uses Prinance and the Prinect Printready workflow. Prinance transfers job data in JDF format directly into the



Prinect Printready production structures. The documentation relating to the order is saved in the folder prepared by Printready for this purpose. Downstream processing of data and outputting of proofs or printing plates using Prinect MetaDimension as the RIP is also JDF-based. “It’s in prepress that we’re enjoying the greatest benefits at the moment.”

“Each process flows swiftly and reliably into the next. This means that we can handle three to five times as many jobs as we could before; without adding to our staff,” explains Michael Grüll. Color-Gruppe uses the Prinect Prepress Interface to link its prepress, press and finishing operations. A job-specific color profile is automatically generated from digital data delivered by the prepress stage, and is then used to preset the printing

press. The Prinect CP2000 Center press control provides the printer at Color-Offset with an online digital job ticket, complete with a preview and all parameters necessary for setting the three Heidelberg Speedmaster presses – an SM 102-6+LX, an SM 102-5P and an SM 52-2. The Prinect Image Control color measuring system helps with setup and production run monitoring. Data from the measured print sheet is constantly compared against the target values and sent back to the prepress stage so profiles can be adjusted. This means that any changes in printing conditions lead to automatic adjustment of the proof and printing plate production process – and all this happens on-the-fly. At the same time that job data is being sent to the press room, the Prinect Prepress Interface is sending imposition layouts and folding and cutting marks to postpress. Together



Together with his colleague Margit Kernl, Michael Grüll, managing director of Color-Medienservice GmbH, checks the printing plates for a job.

with Compucut and Compufold, Prinect Signa Station thus ensures greater efficiency in the finishing stage using the Polar 137 Autotrim and Polar 78 ED cutters. “The cutting program is generated with just a few clicks of the mouse, it’s rare to have to make any additional adjustments,” says Grüll. Automated processes have now taken the place of verbal coordination, delivering far greater reliability and speed to boot. “In the finishing stage, this lets us make up for any time that may have been lost earlier in the production process,” states Wagstyl. His colleague Michael Grüll points to another important aspect: “Automated data flows considerably reduce the risk of data entry errors. Every interface we automate helps us reduce our reject rate.”

Just-in-time operation saves space and money. Networking actual production was not enough for the management team at Color-Gruppe. Wishing to optimize their core business processes, they also took charge of materials management, believing that a system that had been operating successfully for many years in the automotive industry ought to work in the printing sector, too.



The group’s four companies have the same slogan but different logos. This stresses both their membership in the Color-Gruppe and their legal independence.

In the space of just a few months, a just-in-time delivery system was installed. This has been preventing capital from being unnecessarily tied up ever since. “We now have all our paper suppliers on board, and get six deliveries a week. So we don’t waste practically any of our resources on warehousing,” says Wagstyl. In the future, the group intends to extend the system it now uses for paper to all other consumables as well. As Wolfgang Huber explains, “Our premises are located in a four-story building and space is restricted. If we can manage to integrate all our suppliers in a comprehensive, just-in-time material supply system, we will save a great deal of time and money by eliminating the need for additional storage space and handling.”

To sharpen its competitive edge and ensure success despite continuing pressure on prices, Color-Gruppe is pursuing a quality-focused business strategy. “We offer our customers a real value add with our high-quality products and services. This clearly distinguishes us from the competition,” says Wagstyl. It’s all about quality rather than quantity, he explains. “Customers appreciate our expertise where small and medium-

sized runs of sizeable and high-spec items are concerned, which we produce quickly, flexibly and reliably.”

Adding value for the customer. The quality-focused thinking of Color-Gruppe always goes hand-in-hand with the desire to constantly improve the standards it has achieved and to develop additional potentials for adding value for the customer. “As a bare minimum, we want to offer our customers high-quality print products. However, our objective is to impress our customers and win their long-term business. For example, by offering special color effects and finishes,” explains Ralf Paringer, production manager at Color-Offset. To put itself in a strong position to offer such additional services, Color-Gruppe has been continuously building up its technical printing expertise for many years. This effort has paid off, as the example of the group’s proprietary development, Color-Magic®, shows. This patented process uses highly pigmented inks to extend the color space and faithfully reproduce natural colors. The limited-liability companies comprising Color-Gruppe are all independent legal entities, but they share a slogan and use logos that indicate their



membership in the group. However, even the best systems and the greatest technical expertise are of little value if the processes involved in print media production are not properly coordinated. “To ensure optimum color results, the images from the RGB data also have to be correctly processed. So we use appropriate workflows and lay the foundations in prepress for achieving top results in the press room,” explains Michael Grüll.

European Printer of the Year. In recognition of the success of its quality-focused thinking in the printing business, Color-Gruppe was honored with a gold award in the calendars and posters category of the 2004 European Printer of the Year competition organized by paper manufacturer Sappi. The panel of judges was very impressed with a calendar which Color-Gruppe produced for banknote printers Giesecke & Devrient. Each page of the calendar explains the development of a national currency and includes a real bill. “Our calendar impressed the judges not only because of its originality, but also because it was so painstakingly pro-

duced using a frequency-modulation screen, metallic inks, different spot coatings and detailed relief embossing,” explains Christian Leuthner, who is the creative contact for customers of Color-Gruppe.

Customer diversification is a priority. In line with its business strategy, the services of Color-Gruppe are primarily aimed at companies of all sizes in the region that are looking for precisely the quality that the group provides. Its customers – in industry, advertising, financial services and publishing – include major companies such as BMW, Siemens, McDonalds, Agip, Osram and HypoVereinsbank, for which Color-Gruppe produces high-quality business reports, corporate image brochures, anniversary publications and calendars, among other things. As Peter Wagstyl explains, “We’re strong in all areas where top-quality print products and services are the order of the day.”

The management team of Color-Gruppe sets great store in maintaining a well-diversified client base. To avoid depending excessively

on any one customer, care is taken to prevent any of them from accounting for more than five percent of the total sales over a medium-term period. “This approach has really paid off, particularly during economic slumps, when a drop in orders can never be ruled out,” explains Wolfgang Huber. In addition to securing customer loyalty, systematically recruiting new customers is therefore a daily task for the members of the sales team and management.

Meeting growing information needs. “Naturally, we want customers to feel at home with us and to be really impressed by our products and services. That’s the only way we’ll maintain their loyalty when cheaper bidders come along,” says Huber. Here too, Color-Gruppe benefits from its networked workflow systems. “We’re finding that customers are asking us for a growing amount of information, and our Prinect job tracking functionalities let us happily give them what they want,” adds Wagstyl. The system automatically generates status reports, which provide transparency and give

customers confidence in the reliability of the services they receive. Additionally, customers can use their passwords at any time to log into Color-Gruppe’s system via Webconnect if they wish to check the status of current orders and inquiries in realtime. Status reports and Internet services also take the pressure off the group’s employees. Since customers began receiving regular information on the status of their orders, the number of calls has dropped by half. As Wolfgang

important questions and solve real problems.” Once they were used to the new system, the employees quickly learned to appreciate its benefits for their everyday work. Using networked structures is now second nature to everyone. “These days, our trainees only learn about ‘conventional’ print production workflows outside our company!” says Mr. Huber.

Focused on the future. “Our company is doing well, and we want to allow others to share in our success,” explains Wagstyl. Color-Gruppe therefore sponsors a local sports club, and is also involved in the Anton Schrobenhauser “Kids to Life” Foundation, an organization dedicated to children growing up in care homes. “It’s great fun, and we often use our customer events to drum up support for the children,” says Wagstyl. The issue of training is also very important to the group. Trainees account for around 15 percent of the total workforce, and many of them have an opportunity to pursue a career with Color-Gruppe at the end of their training. “This young team gives us a good basis for continued success in the future,” emphasizes Wagstyl.

The group is very well prepared for the future in technological terms, too. “Our investments in networked systems and processes bring us a clear competitive advantage, and this is going to pay off more and more in the years ahead. Printing companies who don’t move with the times are almost certain to fall behind, mainly because they lack the control procedures and transparency necessary to achieve the efficiency and quality that the market demands,” says Huber. In line with its business strategy and to make the most of its fleet of machinery, Color-Gruppe plans to expand its finishing activi-



Peter Wagstyl, managing director ...

Huber explains, “one of our main concerns is to make sure that our employees’ time is not monopolized by unnecessary routine tasks, entering the same data again and tiresome inquiries, so they will have time to deal with



... and his colleague Wolfgang Huber, son of the business’s founder, share the task of shaping the strategy of Color-Gruppe.

ties. It has already decided to invest in a five- or six-color press with inline coating capabilities. As Wagstyl explains, “New inline finishing technologies will really be the icing on the cake for our services, allowing us to offer our customers the true added value they expect from us.” ■

Facts & Figures

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News & Reports

North America’s first 12-color Speedmaster



Paul and Jerry Theoret, the managing directors of Battlefield Graphics, with their new Speedmaster SM 102 with CutStar.

Canada. The Canadian company Battlefield Graphics, based in Burlington on the shores of Lake Ontario, treated itself to something quite special for its 40th anniversary: the company became the first in North America to invest in a new 12-color Speedmaster SM 102 with perfecting capability, MCS (Modular Coating System) for inline coating, and a CutStar sheeter. This configuration means the press can print either 6/6 or 5/5 colors plus coating on both sides. Paul and Jerry Theoret, who manage the family-owned print shop and its 78 staff, primarily use their recent investment in Heidelberg technology to print annual reports, catalogs and premium brochures. The new Speedmaster was acquired first and foremost to boost productivity, but it also enriches Battlefield’s production capabilities, which incorporate CtP and proofing technology, color management systems, UV printing equipment, and machinery for cutting and stitching.

For more information, visit: www.battlefieldgraphics.com



The Diana X 115 and X 135 feature a whole range of innovations, including touchscreen control, to facilitate operation and enhance productivity.

The Diana X 115 and X 135 offer virtually unlimited options

The Diana X 115 and X 135 from Heidelberger Druckmaschinen AG are a completely new generation of folding carton gluers. Their modular design and the different configurations this allows can meet a very diverse range of needs. Depending on the user’s requirements, the Diana X 115 or X 135 can be upgraded or converted by adding modules. These include the rotating module, a lockbottom module and the multi-purpose module 150. The customer, not Heidelberg, defines the machine. The Diana X 115 and X 135 are thus multi-purpose machines with a very unique range of functions. The customer can choose between a compact short model for all standard blanks, a high-performance long model for high produc-

tivity, and special versions with various module combinations for processing special blanks. The Diana X 115 and X 135 are ideal for packaging printers and finishing specialists who are looking for flexibility and productivity coupled with short makeready times and reduced production costs. Enhanced features such as touchscreen control and fully automatic changeover via AutoSet make operation truly user-friendly. The new folding station and longer folding paths ensure top fold quality, even at high speeds.

CIP4 Interoperability conference in Heidelberg



In late January, 85 participants from over 30 international companies met at the 7th CIP4 Interoperability Conference in the Print Media Academy in Heidelberg.

Germany. Heidelberger Druckmaschinen AG hosted the 7th Interoperability Conference of the CIP4 Organization at the Print Media Academy in Heidelberg on January 24-29. It attracted 85 participants from over 30 print media companies in various countries.

The goal of the conference was to help establish the Job Definition Format (JDF) as an open industry standard and expand its functionality. To this end, the conference participants drafted additional possibilities for exchanging the data format between the various workflow systems of different manufacturers. Because JDF can be used to describe similar procedures that crop up in graphic arts businesses in many different ways, in practice data transfers often fail due to lack of interoperability between the writer and reader.

CIP4 is addressing this problem with Interoperability Conformance Specification (ICS) documents, which describe individual interfaces clearly and in detail. All workflow systems and components that comply with the specifications can communicate with each other without problem.

“The conference has provided a clear boost to efforts by CIP4 to further establish JDF in the print media industry. Within a few years, JDF will be as much a part of the scene as PDF is now,” says Dr. Rainer Prosi, chief technical officer at CIP4. “JDF also serves as a basis for the Heidelberg Prinect workflow. “Heidelberg will continue to support the development of JDF through its far-reaching commitment to CIP4,” explained Jörg Bauer, the vice president in charge of Prinect product management.

Business success in Middle East

Egypt. Back in 1986, Hesham A. Hegazy would have pinched himself if you had told him that he would one day be producing flyers, brochures, calendars and even annual reports for international corporations such as General Motors, Microsoft, Nokia and Esso. His company, “El Gezira”, had only four employees and two used GTOs in those early days. 12 years later, the company had established itself in Cairo and, supported by a financing model proposed by Heidelberg’s sales partner Youssef Allam & Co., had taken on two new GTOs. The first two Speedmaster presses were added in 2001. One of the GTOs was replaced by an SM 52-4, while an

SM 74-4 H significantly expanded El Gezira’s fleet. Shortly afterward, a CtP system ushered in a further increase in productivity, which resulted in Hegazy deciding at drupa 2004 to invest in a four-color Speedmaster SM 102. Since the end of last year, the company has been using this press to produce magazines, annual reports and catalogs. Today, El Gezira has a workforce of 110 and enjoys an excellent reputation in Cairo and the surrounding area.

For more information, contact: Elgezirapress@hotmail.com



Managing Director Hesham A. Hegazy is seeing his El Gezira print shop in Cairo steadily grow.

Suprasetter wins friends

Switzerland. UD Print AG is a leading printing company in central Switzerland and, with 80 employees, is the largest print shop in Lucerne. The Swiss company was the first test customer worldwide to put the new Suprasetter through its paces. Over 15,000 70x100 cm (27.56x39.37 in) plates have been imaged on the Suprasetter H 105 since June 2004. “Because of the positive results from the beta test, we decided to buy the entire workflow. We were impressed by the complete concept, not just the Suprasetter,” explains Bruno Schleiss, head of the CtP department at UD Print AG. The test installation consisted of a Suprasetter H 105 with six laser modules and a Single Cassette Loader. It also included the Heidelberg Prinect MetaDimension workflow. “Our practical tests clearly proved the first-rate performance of our product combination. All our customers will profit from the positive results,” comments Hans-Jürgen Ratjen, project manager at Heidelberg Druckmaschinen AG, on this success story.



More than satisfied with the new Suprasetter: Bruno Schleiss, head of the CtP department and in charge of the Suprasetter beta test project; Remo Zemp of the CtP department; Ulrich Bigler, the director of UD Print AG and president of the UD Media Group; and Nikolaus Fontana of the CtP department (left to right).

Seal of security for Remote Service



Germany. Late last year, TÜV Informationstechnik GmbH certified the Internet-based platform for Heidelberg’s “Remote Service” offering. Heidelberg thus became Germany’s first mechanical engineering company to receive the “Trusted Site Security” certificate, which confirms that the service employs secure technologies and procedures, especially for transmitting data over the Internet. Users can therefore count on nobody nosing about their data without permission, and that all systems communicating with the Remote Service platform have been checked for tight security. The certificate was presented by Antonius Sommer, the managing director of TÜViT, to Manfred Jurkewitz, the head of Research & Development, Dr. Jürgen Rautert, the Management Board member responsible for Engineering & Technology, and Tom Oelsner, the project manager in charge of Remote Service.

Printmaster GTO

Dniester. Back in 1516, author Thomas Morus described a journey by Raphael Hythlodeus, the hero of his novel, through a state that did not exist. Today, Hythlodeus would have felt quite at home in the Dniester Republic. This modern-day utopia nestles between Moldova and Ukraine. Covering 120,000 square kilometers (143,520 square yards), it has around 300,000 inhabitants. You won’t find the Dniester Republic on any map, however. It has no diplomatic representations abroad and is not recognized politically by any other state – but it does exist. This tiny country, tolerated by its neighbors, has its own army, its own license plates for vehicles and its own postage stamps. And of course its own money, which is only valid in Dniester itself and neighboring Moldova – printed on a Printmaster GTO. Heidelberg has so far supplied a total of 20 GTO printing units and four S-Offset printing units to the country. The Dniester Republic was founded by the 14th Russian Tank Division, which took things into its own hands when Ukraine declared itself independent from the Soviet Union by establishing its own state on the bank of the Dniester River.



Subcontinent on the up and coming

India. Occupying an area of 3.3 million square kilometers (3.95 million square yards), India may only be one-third the size of the USA, but its population of over one billion is more than three times as large. And the region is continuing to grow – not least from an economic perspective. Annual growth rates of between six and seven percent are also having a significant impact on the local printing industry. To participate in this growth, Heidelberg has initiated a program to promote the Indian print media industry. This 10-year program includes support for the best graduates from India’s printing colleges, opportunities to use Heidelberg presses for training and demonstrations, extension of financing schemes available to customers, and expansion of the company’s regional sales and service capacities. “We want to develop India into another major pillar of the Asian market in order to underpin our leading position in the region,” says Günter Zorn, the head of Heidelberg’s Asia/Pacific Region.

For more information, contact: Ole.Rasmussen@heidelberg.com

Combined certification

The German Technical Inspectorate South (TÜV Süd) has recertified the entire value chain of Heidelberg’s core business as complying with ISO 9001 and ISO 14001 at the company’s Amstetten, Brandenburg, Heidelberg, Kiel and Wiesloch sites. The recent audit covered the full gamut of processes. A single combined certificate was issued for all areas from marketing, product management and R&D to procurement, production, service and support functions. Certification to international ISO standards is an integral part of Heidelberg’s quality and environmental policy and is geared to continually raising customer satisfaction. It is also intended as a means to document all activities: especially important because Heidelberg’s own standards exceed the ISO specifications.



“reddot design award” for Heidelberg Prinect workflow



reddot design award
winner 2004

An international panel of judges from the North Rhine-Westphalia Design Center has awarded Heidelberg’s Prinect workflow the “reddot” for outstanding design in the “Digital Media” category. The awards ceremony took place at the Essen Philharmonic on December 3, 2004. The judges particularly praised the workflow system’s clear structure and design as well as its ease of navigation. “The reddot award for Prinect shows that Heidelberg has a workflow system in its portfolio that, thanks to its outstanding usability, also makes it easy for small to medium-sized print shops to begin moving into process integration,” stated Jörg Bauer, the vice president in charge Prinect product management, delightedly. Prinect workflow applications can be operated ergonomically with a keyboard and mouse, but also using a touchscreen display on the machines.

WORKFLOW MANAGEMENT

Flowing nicely!

“Panta rei” – all things flow – as the Greek philosopher Heraclitus once said. For printers, however, day-to-day reality often tells a different story. Many workflows have breaks that obstruct the flow of jobs and make cost-effective production more difficult. Prinect Solutions from Heidelberg integrate all job processes into one comprehensive system to ensure reliable results.

A print product is the result of many processes. If job data contains errors or the transition between different operations isn’t smooth, this can consume a lot of time and money – valuable resources that small and medium-sized companies in particular cannot afford to squander. In the words of Jörg Bauer, the vice president responsible for Prinect at Heidelberg: “With the smaller jobs prevailing today, the share of total production time devoted to makeready is increasing. By optimizing the data, Prinect significantly speeds up and automates the stages prior to actual printing. This cuts costs and overall job turnaround time.”

Solutions for production, color and job management. For print shops looking to significantly improve their value chain and cut costs at the same time, Heidelberg’s Prinect offers immediate practical benefits in the three key areas of production, color management, and job management. For print production, Heidelberg offers products to optimize the whole process chain from prepress to postpress. For instance, if a print shop is already using Prinect Signa Station for impositioning and would like the data to be used automatically for presetting its folders and cutters, Prinect Production Solutions has the answer. In this example, the machines used would be Prinect Compucut and Compufold.

In addition, Prinect color management ensures that the print results match the proof and that the right presettings are sent to the press. For instance, the color database on the Prinect CP2000 Center has many practical benefits. It can be used to preset the correct colors on the press for different paper grades and inks. All this can be done

easily and reliably at the press of a button. With the help of the Prinect Color Solutions palette, this process can even be performed automatically. In many cases, updating the existing devices is enough to significantly reduce makeready times and waste. However, Prinect Solutions also secure long-term benefits on the job management side, where they can be deployed to document and cost customer requirements. Was a particular job actually produced on schedule and at the anticipated cost? In which processing stage is a particular job at the moment? How can the information be transferred to the customer quickly and at minimum expense? A Management Information System (MIS) integrated with Prinect can answer these and many other questions at the press of a button using up-to-the-minute data from prepress or the pressroom. Prinect quickly and smoothly transfers job data from the MIS and distributes it to all production stages – without having to repeat entries, which would otherwise increase the risk of input errors.

As can be seen from the examples that follow, every Prinect product adds value – value that can be increased even further through integration into end-to-end processes. When print shops invest in a Heidelberg Speedmaster press or Heidelberg CtP system, Prinect is included as part of the package, ensuring them quality and reliability far into the future. Companies are free to choose whether to integrate further Prinect Solutions and how intensively to use them depending on their particular requirements at a given time. Prinect offers the right solution for every need, so that print and media providers – and especially small and medium-sized businesses – can respond even better and faster to customer needs while improving

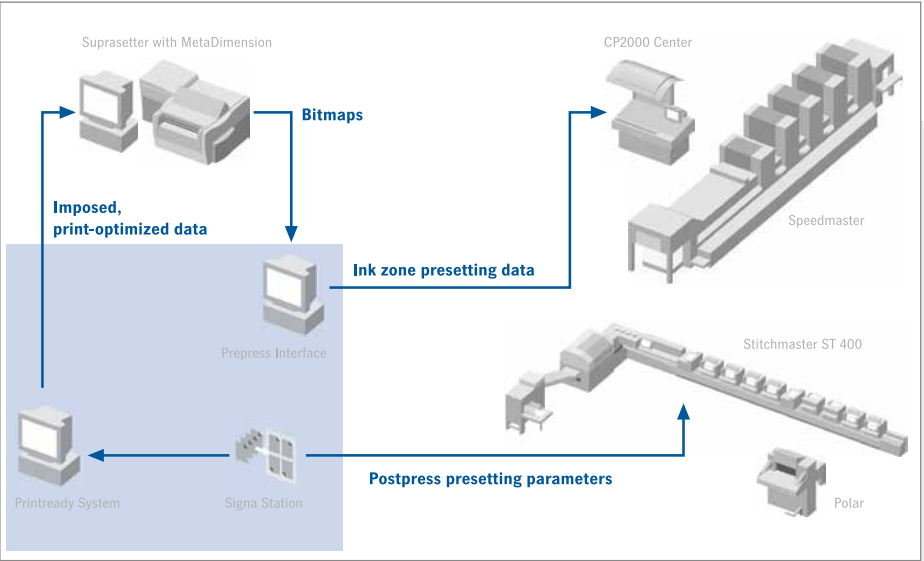
their cost-effectiveness at the same time. In line with its motto of ‘Print and Connect’, Prinect establishes a forward-looking platform for integrating print shop processes. At all times, users have a clear overview of the route the data takes – from management to processing and from prepress to press and postpress and back to management. All Prinect components are based on open standards such as PDF, PPF and also JDF, which facilitates exchanging data with suppliers and customers.

Prinect Production Solutions. The principal aim of Prinect Production Solutions is to help print shops cut job turnaround times and increase their productivity. The first step toward creating an integrated workflow is providing end-to-end availability of content and presetting data. The Prinect prepress workflow consisting of Prinect Signa Station, Prinect MetaDimension and Prinect Printready, for example, ensures long-term prepress efficiency. Prinect Signa Station supplies Prinect Printready with imposition layouts in the form of PDFs. MetaDimension functions as a RIP and supplies the pressroom and postpress with presetting data via Prinect Prepress Interface. The printer at the Prinect CP2000 Center press control station receives the required PPF data – including a preview and the setting parameters for the press – online. The workflow supplies all content and presetting data required in the pressroom and the postpress so that machines can be automatically preset for a particular job. While one job is still in the press or postpress stage, the next is already being prepared for production. “Presetting based on PPF data has been available since the late 1990s, and as such forms the basis for reducing throughput and makeready times without having

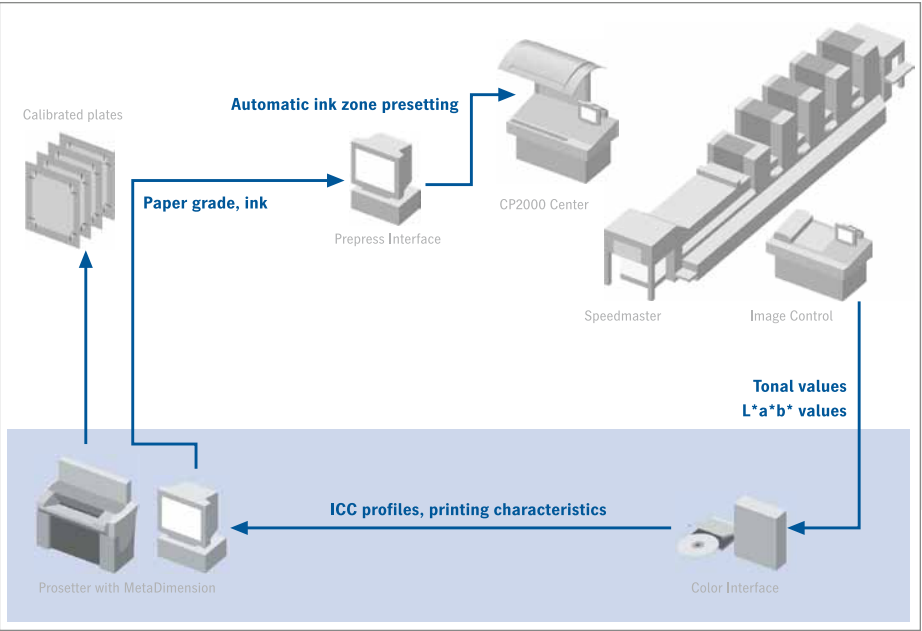
to increase staffing levels,” explains Jörg Bauer. However, Prinect Production Solutions are also effective beyond the walls of the print shop. For instance, the Remote Access Internet option enables print shops to consult on proofs with customers online – a time-saving and reliable alternative.

Prinect Color Solutions. Color fidelity is always a critical aspect. The print product must be quickly matched with the proof and any color deviations dealt with right away. Prinect Color Solutions provide powerful tools for calibration, profile creation and monitoring, thus ensuring that the press can be inked up fast. “Continuously adapting the printing characteristics based on data obtained during ongoing production and the right ICC profiles can cut makeready times and waste by about a quarter,” explains Bernd Utter, the product manager responsible for Prinect at Heidelberg. The Prinect Printready system then checks the PDF documents supplied by the customer to make sure they are complete and printable.

Color values are adapted to the print color space and a proof is output via the Prinect MetaDimension RIP. After that, the data is transferred to the imagesetter for making the printing plates, while at the same time a PPF file is generated and passed to the CP2000 Center press control station via Prinect Prepress Interface. One outstanding advantage of the Prinect solution is that, when calculating the correct “ink zone opening”, it takes into account not just the motif-dependent ink coverage, but also the required ink type, paper grade and inking standard. The ink presettings are selected accordingly and the first print is practically perfect. The Prinect Image Control



Prinect Production Solutions
Integrating the Prinect Printready system and Prinect Signa Station makes imposition layouts directly available for presetting the ST 400 saddlestitcher. The imposition layouts are also transferred to Printready, which assembles the complete sheet from the individual print-optimized pages. This is then sent to MetaDimension for imaging and proofing. Prinect Prepress Interface generates data for automatic presetting of the ink zones on the Speedmaster press.



Princt Color Solutions

A print shop looking for a new CtP system settled on Prosetter with Princt MetaDimension. Princt Image Control was expanded at the same time by adding Color Interface software. Image Control now records the changes in the print process and relays these to prepress for matching the plates and proofs. This also ensures that the data for setting the ink zones is automatically optimized on the Princt CP2000 Center.

color measuring system serves as an interface between the prepress and the press and provide assistance during makeready and for monitoring production.

However, it does even more besides keeping the current job within its target parameters. For instance, if the dot gain changes because of a new ink, this is registered during measurement and the data immediately transferred to prepress for adjusting characteristic curves and profiles as appropriate. The next set of plates is then adapted to the changed printing conditions. “Our goal is a color management system that is easy to control in day-to-day production. The Princt Color Solutions provide an ideal basis for this and they also help print shops work a lot more cost-effectively,” says Princt product manager Bernd Utter.

Princt Management Solutions. A job has been costed and sent for production. But where is it now? Exactly how much has it cost to produce it in the end? Princt Management Solutions provides the answers to these questions. The solutions clearly map the print shop’s business-management processes, including preliminary costing, planning, recording of operating data, invoicing, dispatch and final costing. The management information system guides the user step by step through costing of the prepress, press and postpress stages. The Princt components automatically ensure that recorded job data is subsequently made available to all downstream stages. System-supported feedback within the Princt workflow enables print shops to respond quickly and efficiently to special requests. Princt also enables precise job tracking in the integrated MIS. This ensures transparency and promotes customer confidence. For man-

agement purposes, clear reporting and controlling tools deliver a wide range of analysis options and provide detailed information on the current status of production.

Princt Solutions deliver fast ROI. Print shops want new investments to pay for themselves as quickly as possible. As can be seen from the Princt systems installed at reference customers, Heidelberg solutions more than fulfill this need. “What makes our solutions really stand out in practice is customized configurations and short payback times for a range of different integration goals and conditions,” says Jörg Bauer. For example, let’s say that a print shop with fewer than 20 employees has installed an MIS and Princt Print-ready in a first move toward integrating job costing and automating prepress. The company produces short-run commercial jobs ranging from leaflets to books. Jobs are set up in the MIS and costed quickly and efficiently. The job and production data is centrally recorded and available to all involved parties. The print shop now has the infrastructure in place to analyze costing results at any time and increase its long-term cost transparency. The new systems are 65 to 70 percent faster than the manual costing and data transfer methods used previously. A totally automated Princt Printready workflow has also been installed in prepress. By integrating the processes, it has cut the processing time per job by an average of 30 percent. Another feature that has particularly benefited the company in terms of its specific job structure is the fact that printing plates needed for repeat jobs can now be prepared in just 15 minutes with Printready. This means the company can now produce many more jobs much more cost-effectively without taking on any extra staff. The increase in sales

achieved by improving productivity and efficiency let it recover the investment in the Princt workflow within 24 months. Not to mention the additional benefits obtained, such as enhanced customer loyalty!

Another medium-sized commercial print shop with around 100 employees has optimized its prepress and press color management with Heidelberg Princt Color Solutions and Print Color Management Services. The company had been looking for a way to meet its customers’ high quality requirements more effectively without having to increase its workforce or consumption of materials. The effectiveness of the Princt Solutions soon became apparent. For instance, color control presetting with PPF files dramatically cut makeready times for the machines and sustainably reduced waste. Automatic alignment of actual and target values for print results during the production run by Princt Image Control maintains reliable and consistent quality throughout the job. In this example as well, the investment in Princt Solutions soon paid off. The savings in terms of materials and makeready times alone meant that the financial outlay was recouped in around six months. The two flowcharts represent typical examples of integration projects in the printing industry and show how the Princt range always has the right solution, no matter what the expectations and objectives.

Versatility and scalability. Princt Solutions reliably link the production workflow with the color and job management systems in the print shop, ensuring a highly streamlined information flow. As well as efficient and reliable production, Princt is also extremely flexible

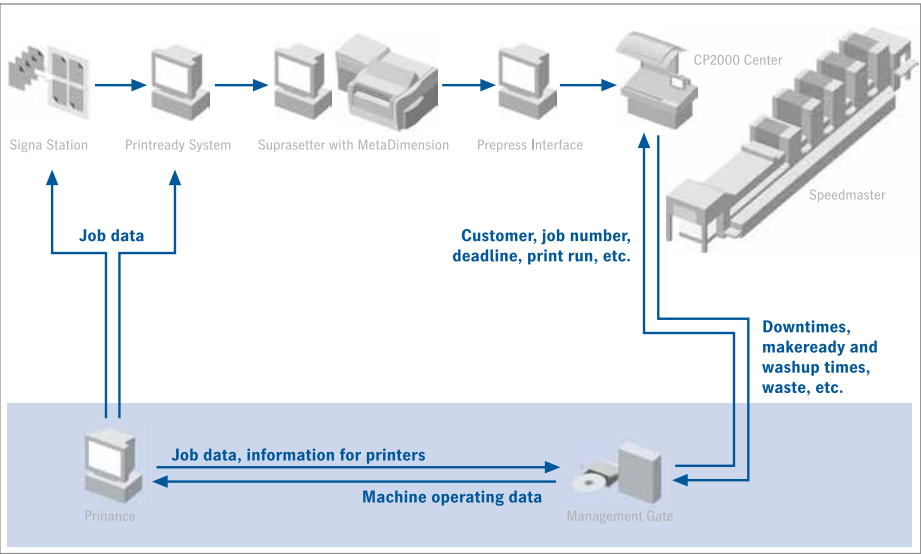
Princt = integrated workflow system

- The four Princt added value points:
- Optimized presettings on all machines.
 - Sustainable improvements in color management, thanks to integration of management, prepress and press.
 - Direct transfer of production data from the MIS and reliable distribution of data to all processing stages using electronic job tickets.
 - Fast reporting of up-to-the-minute, reliable production data to the MIS.

and can be adapted to suit users’ particular requirements and budgets. This is due to the modularity and scalability of each individual Princt component. Princt workflow solutions also pay for themselves extremely fast, regardless of a company’s level of networking and size. Jörg Bauer sums up: “This gives small and medium-sized businesses in particular the reliability they need to migrate to an integrated system with minimal expense and zero risk, and puts them on course for future success.” ■

Facts & Figures

■ www.heidelberg.com/hd/Princt



Princt Management Solutions

The existing production workflow has been expanded to include Princt Prinance and Princt Management Gate. Prinance transfers all production-relevant data to both the prepress and the pressroom. As soon as a production run finishes, the machine data is available for final costing.



The Prinect CP2000 Center press control system provides access to all job data required for plate imaging. The plate-on-demand function is quick and easy to use by touchscreen.

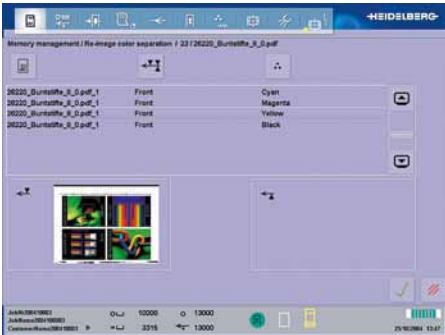


PLATE-ON-DEMAND

The pressroom goes independent!

It’s the nightmare scenario that every printer dreads: a printing plate is found to be faulty during the night shift, but everyone in the prepress department has already gone home. But nowadays that’s no reason to panic. Plate-on-demand means that even this job can be finished on time.

The cold winds of competition are becoming increasingly severe. Small and medium-sized print shops in particular depend on fast, smooth production to be profitable and keep their customers happy. Makeready and down times now account for a significant share of total production time as both press runs and deadlines get shorter. When faulty plates cause unforeseeable delays in production because no prepress personnel is available, this adds to costs and can also have for worse consequences, with customers losing confidence in their print supplier.

Overcoming difficult situations. To provide a solution for critical situations like this while making life generally easier for printers, Heidelberg has developed a workflow concept that dramatically cuts the risk of lost production time and extra makeready with an end-to-end data handling system. That solution is Prinect. Prinect solutions are modular and support all the functions needed to ensure the seamless transfer of job-specific print data along the entire process chain. Since Prinect is based on Job Definition Format (JDF), this enables a smooth flow of data and information between all the machines involved in the print process. “All data generated in the prepress section can also be used in downstream processes. The transfer process is simple, reliable and im-

mediate,” explains Andreas Forer, the head of product management for Heidelberg Imaging Systems. The job data required for plate imaging can also be accessed quickly and conveniently at any time on the Prinect CP2000 Center press control system. This ensures that the press operator can restart the imaging process and quickly replace any faulty plates without outside assistance. It’s only necessary to access the list of plates produced in prepress and select the one required for production. Imaging is initiated with the new plate-on-demand function. A touchscreen interface makes operation easy. All important function menus are accommodated in a header that remains visi-

ble at all times. The fact that the data can be used throughout the production process speeds turnaround and makeready while boosting productivity. Additional security is provided by a preflighting view of the selected color separation. The components required for using the plate-on-demand function include Prinect MetaDimension (Version 5.0 or higher) and Prinect CP2000 Center (Version 4.1 or higher). The Preset Link module must also be enabled. All cutting-edge Heidelberg Computer-to-Plate (CtP) units (Suprasetter, Topsetter and Prosetter) can be controlled via the Prinect CP2000 Center without any special knowledge – the imaging sequence can be freely selected. Makeready times can also be significantly reduced by grouping together digital jobs based on sheet size and color and then systematically processing these; this minimizes both the costs and the time spent on them. The CtP imagesetters of the Prosetter and Suprasetter families are presented below to illustrate how they can meet different customer needs. On a par in terms of quality and operation, they differ primarily with regard to their imaging technology, the plates used and their throughput rates.

No-risk entry-level solution. The members of the Prosetter family are ideal for small and medium-sized businesses, because they involve only a low initial investment, cost less to operate and service, and feature a small footprint. The Prosetter uses violet technology and an internal drum and images silver halide or photopolymer plates in the 405 nm range in two-, four- and eight-page format. In four-page format, the Prosetter can be extended to output up to 24 plates per hour. The available Prosetter models cover the plate formats of all sheetfed presses from Heidelberg and most other manufacturers. “The many options and attractive prices make these platesetters an interesting alternative for all commercial printing companies,” emphasizes product

manager Andreas Forer.

Ambitious businesses. The Suprasetter was developed for companies looking to expand. The thermal CtP system with external drum imaging supports all commercially available CtP thermal plates in the 830 nm range in both four- and eight-page format. This new product, which Heidelberg unveiled at drupa 2004, is ideal for any job mix. Increasing the number of laser modules used (two, four or six are available) lets you prepare more plates in the same amount of time. In four- and eight-page format, the unit can be expanded to output up to 30 plates per hour. Its intelligent diode system (IDS) has been designed with reliability in mind. If one diode fails, the system continues operating by using the largest possible grouping of adjacent active diodes instead, without any significant loss of performance.

Print shops looking to automate their operate step by step can benefit from automation components featuring the same design: the Single Cassette Loader (SCL) and Multi Cassette Loader (MCL) for the Prosetter and Suprasetter models. The SCL can accommodate up to 150 plates depending on their thickness, and automatically loads these into the press. When extended with the MCL, four additional cassettes are available, housing a total of up to 600 plates. A software-controlled system in the Multi Cassette Loader identifies the plate format and automatically loads the correct cassette into the SCL – thereby ensuring fully automatic plate production, hour after hour.

Another application that is unique to the Prosetter SCL also deserves particular mention: a manual plate feed system adds flexibility to let you work with a wide range of plate formats. The user can insert a plate for imaging in the feed shaft between the Prosetter and the SCL. This ensures easy processing of unusual plate formats, even on

rush jobs, that have to be finished in a hurry.

Conclusions. Plate-on-demand ensures smooth plate production in the Heidelberg Prinect workflow by optimizing the flow of data between prepress and press. The Prinect CP2000 Center provides the operator with access to all data required for controlling the imagesetters and presses. When it is used in tandem with scalable imagesetter models of the Prosetter or Suprasetter family, the pressroom can look forward to a significant increase in flexibility, because throughput and automation levels can be easily matched to actual needs. ■

Flexible and scalable

The platesetters of the Prosetter and Suprasetter families can be scaled up as the workload and customer requirements increase. The standard units can be automated at any time by adding a Single Cassette Loader (SCL) or Multi Cassette Loader (MCL). The accelerated Prosetter F 74 and F 102 are equal to even the highest throughput requirements, outputting up to 24 plates an hour in four-page format and 18 plates in eight-page format. The Suprasetter H74 and H105 models support throughputs up to 30 plates an hour.

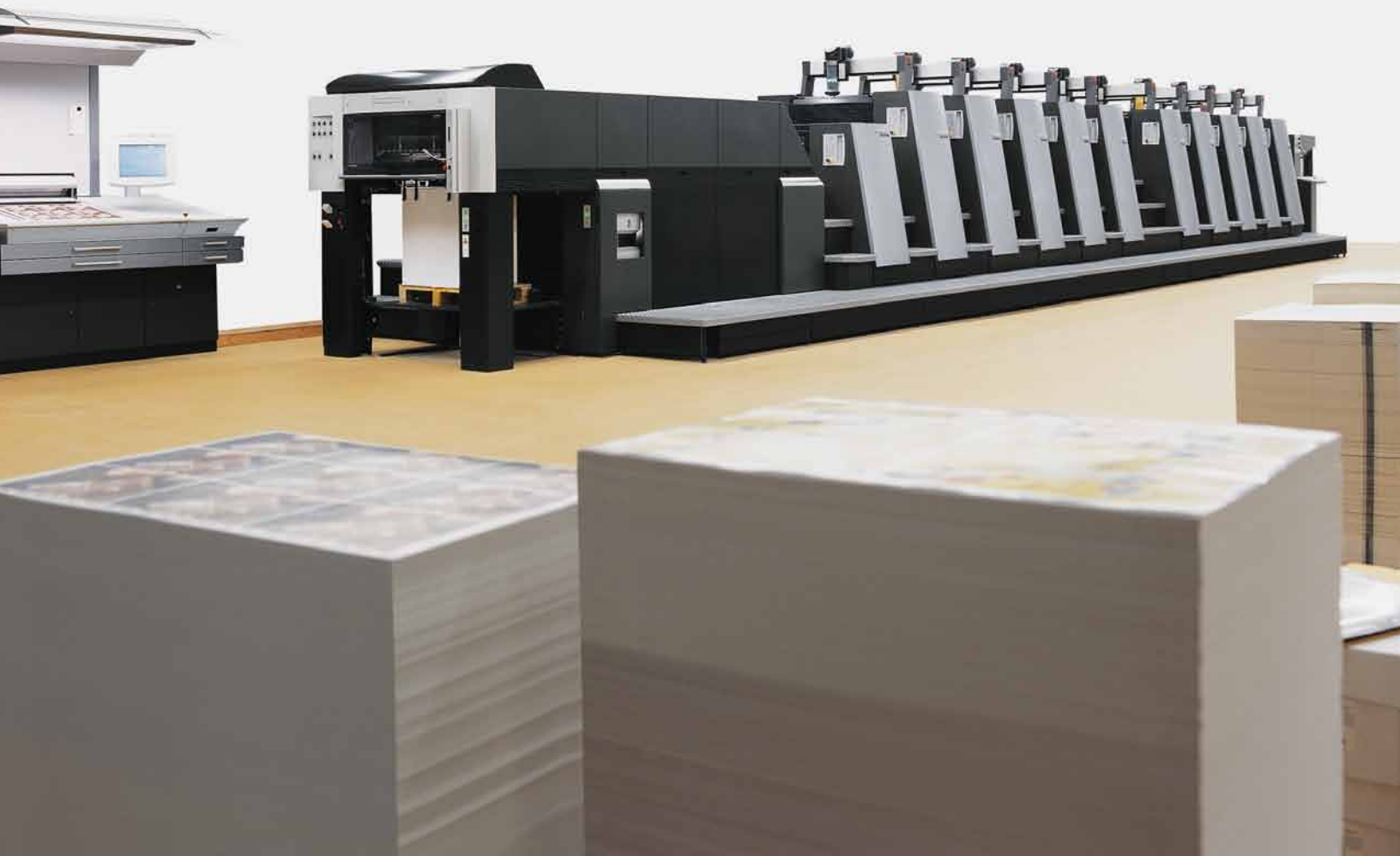
SPEEDMASTER CD 74

Quick and flexible

At drupa 2004, Heidelberg unveiled a six-color version of its Speedmaster CD 74 with a newly developed sheet-reversing system – and met with an enthusiastic response from trade show visitors. The company will soon also be introducing a new generation of long perfectors supporting up to 10 colors plus coating meet the market's need for even greater flexibility in the production of print products.

The presentation of the new Speedmaster CD 74 with eight or ten colors, perfecting capability and additional coating unit was the next logical step toward meeting customers' needs. Why is that? The last few years in particular have seen a steady increase in the speed and productivity of printing presses. But customers today expect more and are also looking for production solutions that are more thoroughly tailored to their specific requirements. This in turn is leading to the emergence of new press concepts. The Speedmaster SM 74 has delivered excellent results in its format class over the course of many years and set the standard for perfecting technology on long presses. Its highly reliable technology has been one of the key factors driving the sales of so far over 160 eight-color and more than 30 ten-color presses worldwide. Since they were first introduced in 1997, the 'long' models of the Speedmaster SM 74 series have proven themselves worldwide to be extremely productive for printing stocks up to around 250 gsm in commercial printing applications. And the corresponding Speedmaster CD 74 models from Heidelberg offer considerably greater flexibility, thus enabling print shops to address a much larger target group.

An ideal response to changing market requirements. The long Speedmaster CD 74 perfectors are ideal for processing a wide range of printing stocks, formats and materials. They can handle printing stock up to 0.8 mm (0.03 in) thick, printing in top quality on both sides in a single pass. As with existing CD 74 perfecter models, the maximum production ▶





The automatically convertible sheet-reversing system of the Speedmaster CD 74.

speed is 15,000 sph, a rate that also applies to ‘long’ models in both straight printing and perfecting modes. Of course, the particulars of each print job also influence the achievable speed. Productivity is altogether improved and job turnaround times shortened – a key factor in keeping all-important delivery times to an absolute minimum.

Thomas Frank, in charge of Product Management 50x70, explains the advantages of the new generation of presses: “Medium-sized companies in particular need to offer their customers a broad range of applications, which also means being able to print on very different stocks. If you add very short delivery times to these requirements, the highly versatile long perfectors based on the Speedmaster CD 74 are the perfect solution.” The highly automated perfecting models offer distinct advantages in terms of makeready times. This applies especially to commercial print shops that have to constantly switch among widely varying stocks and lay down four and five colors on each side of the sheet. Increasing volumes of labels and packages are also being printed on the reverse side. “Printing on the reverse side is generally limited to one or two colors. The front side is becoming increasingly colorful, however, and we’re seeing more and more special effects. A 2/6 plus coating configuration based on the Speedmaster CD 74 would fit the bill neatly and can also be equipped with UV if required”, says Frank. In addition to the usual range of applications for long perfectors, for example brochure printing, the eight- and ten-color models are perfect for covers, folders, packaging, greetings cards and postcards.

Diversity of materials and fast turnaround. The presses can be converted quickly and automatically between thin papers and board. The perfecting system can also be set automatically at the press of a button. This ideally meets the prerequisites for producing high-quality print products cost-effectively while flexibly responding to customers’ very individual needs. Says Frank, “in order to fully reap the benefits of perfecting in a single pass, especially on short runs, very fast makeready is essential. It also has to be very easy to adjust the sheet travel. The long Speedmaster CD 74 models with their innovative perfecting systems are currently setting new standards in this regard. This has been confirmed by pilot users who have been working with these models for more than 12 months on a wide spectrum of applications.

The new models of the Speedmaster CD 74 are also available in “F” format with a maximum sheet size of 60.5x74 cm (23.8x29.1 in). They therefore support a greater print area than the standard presses

“The long Speedmaster CD 74 models with their innovative perfecting systems are setting new standards.” Thomas Frank

in the 50x70 cm (19.7x27.5 in) class. The “F” format of the Speedmaster CD 74 enables packaging and label printers in particular to make the most of each sheet, especially when producing multiple-ups.

Integrated UV technology bestows competitive advantages. As competition in the market gets fiercer, many companies are opting to produce print products with highly appealing graphic content to gain an edge. To let users take advantage of special finishing effects inline, Heidelberg is therefore equipping the new Speedmaster perfectors with fully integrated functionality for UV inks and coatings. High-quality packaging, for example for cosmetic products, and specially designed brochures can be produced just as efficiently as plant stakes or quality plastic tags for textiles. The potential range of applications also includes many types of plastic cards. The ease with which the Speedmaster CD 74’s sheet-reversing system handles thick and rigid stocks means that these specialty items can be produced quickly and cost-effectively. The new Speedmaster CD 74 presses are therefore the perfect answer for every printer looking for a way to produce large volumes economically while breaking into new markets. The new generation of “long perfectors” therefore opens up attractive technical and business opportunities for both commercial and packaging printers that had not previously been available in this press class. ■

Facts & Figures
■ www.heidelberg.com/hd/CD74



Thomas Frank, 44, is a business engineer who has been with Heidelberg since 1987. As the head of product management for 50x70 presses, he played a key role in developing the Speedmaster CD 74 and was responsible for its market launch.

The long Speedmaster CD 74 perfectors, featuring up to 10 colors plus coating, cover a broad range of applications. Equipped with an automatically convertible sheet-reversing system between the fifth and sixth printing units, it is ideal for both the broad range of substrates used in commercial printing and double-sided printing for packaging jobs.





EXKLUSIVE INTERVIEW

“We will continue to expand our service portfolio!”

In an interview with the Heidelberg News, Bernhard Schreier discussed the assistance that Heidelberg provides to boost the competitiveness of print shops. Up-to-date technology is only one component of many for ensuring their long-term business success. Heidelberg also supports its customers with the industry's largest sales and service network.

HN: Mr. Schreier, how do you personally keep in contact with Heidelberg's customer base?

B. Schreier: I spend significantly more than half of my time with customers all over the world. For example, I recently returned from a ten-day business trip that included various events in China, India and South America, during which I spoke in front of well over 1,000 customers. I also made personal visits to a number of print shops. We take advantage of these opportunities to support our normal communication and emphasize that we want to strengthen our customers' confidence in Heidelberg by providing them with the best possible services and products.

HN: What can print shops expect in the next few months?

B. Schreier: Because markets around the world are developing in very different ways, it is really only possible to answer that question for specific cases. Generally speaking, though, excess capacities and price pressures have been shaping our customers' markets for quite a while. I certainly wish the situation in our industry were a lot healthier. In other words, we expect the consolidation process to continue for the time being. In all probability, the total number of print shops that succeed in holding their ground in this fiercely competitive environment is likely to decline all over the world.

HN: Under these circumstances, what can print shops do to maintain or even grow their businesses?

B. Schreier: The trick is not just to react to change, but to position yourself specifically in response to change. I see two main trends in the world. In developing countries such as China, India, Mexico and Brazil, opportunities will come from volume, in terms of the number of both jobs and their size. The situation is somewhat different in the established industrialized nations. To succeed there, print shops need to focus their efforts and specialize.

HN: How can you help your customers meet these challenges?

B. Schreier: Our customers in the newly industrializing countries know that they can rely on our standard products to give them cost-effectiveness and productivity. In the industrialized nations, on the other hand, the demands on flexibility and surface finishing have continued to climb. This has inevitably increased the demands on us too, because special print products call for special print solutions. In terms of technology, we can increasingly satisfy this demand with machine configurations that we can adapt to the business models of individual customers or develop in cooperation with them. The resulting machines are largely based on standard components, but the final configuration reflects the customer's specific requirements. For ►



“Early detection of problems helps completely avoid or at least reduce costly downtime.” Bernhard Schreier

example, late last year we produced a customized Speedmaster CD 102 with a total of 16 units for one customer, making this the longest sheetfed offset press we have ever built.

HN: And what is the customer using the press for?

B. Schreier: The customer prefers to keep that information confidential in order to protect its competitive advantage.

HN: Special configurations like that will primarily interest large companies. What about the many small and medium-sized customers?

B. Schreier: Customized machines such as these are naturally also available in small and intermediate formats. We can produce appropriate configurations to satisfy any requirement.

HN: How could most customers specialize, and in what areas?

B. Schreier: First and foremost, small and medium-sized businesses have to know exactly what their costs are and be able to monitor any changes. However, intuition of this type is no longer sufficient for print shops to realistically evaluate their economic prospects. This may be all right if a relatively broad-based print shop generally has high margins and can balance out losses in one sector with profits in another. But margins are now generally too low to manage a business like that. Print shop managers now have to be able to precisely what their customers want from them, what their real talents are, and which products and customer base will yield the biggest profits. This type of analysis also provides all the information you need to

design your business model. Unless you have the right focus, you will soon fall by the wayside in today’s tough competitive environment. This is one area in which small and medium-sized print shops have a lot of latitude for challenging the big players.

HN: What form might this focussing process take?

B. Schreier: All print shops, even small ones, have the ability to focus on certain areas. There are a variety of models for doing this. For example, if you want to specialize in a given end product, you have to optimize your entire process chain accordingly. However, if your customers are less interested in optimum quality and more concerned about the time it takes to produce a job, your aim should be to become the fastest in the market by installing a workflow that ensures precise register. If, on the other hand, you want to develop into a full-service provider around your core business and serve a limited target group, you could still continue to supply product to customers while outsourcing some work instead of doing everything yourself. The key is to concentrate on an effective and sustainable business model that adequately supports you and maintains your flexibility. Even in a lucrative niche market, the business model has to let you respond flexibly to customer demand.

HN: How will you support your customers in this process?

B. Schreier: First things first! We are the only provider in the sheetfed offset sector offering products for the entire process chain from a single source. We also offer integrated solutions in the form of Prinect workflows in the postpress sector. This means that we are

able to boost quality, efficiency, productivity and general performance for our customers. In addition to this reliable, high-quality hardware and software, our “brainware”, delivered by our Print Media Academy network, is becoming increasingly important. We will be continuing to expand our portfolio of services to strengthen our customers’ expertise.

HN: What, specifically, are you considering?

B. Schreier: With 5,400 sales and service specialists at 250 branches in 170 countries, we already have the largest sales and service network in the sector. Under the “systemservice” name, we intend, among other things, to expand our training offering for operators. This program also includes a simulation tool called “BizModel”. Once a customer has settled on a business model, this tool can help optimize its cost-effectiveness. For example, we use actual customer data to identify process or product bottlenecks, perform cost/benefit analyses, and determine “realistic ideal conditions”. This provides a sustainable basis for raising the company’s profitability while minimizing the investment risk. Remote services provided over the Internet and a new quality pass which analyzes print products both help nip problems in the bud and completely avoid or at least reduce costly downtime.

HN: What importance does sales financing have for you?

B. Schreier: We naturally offer this service to Heidelberg customers in response to market needs. Our Financial Services team works with expert partners to develop custom-tailored models. About one quarter of Heidelberg’s sales involve this service.

HN: What can visitors to Chinaprint in Beijing and Print in Chicago expect to see at Heidelberg’s exhibits?

B. Schreier: Visitors to Chinaprint are likely to find our Prinect workflow system particularly interesting. There’s no doubt that, alongside Prinect, the highlight for Heidelberg customers at Print in Chicago will be the Speedmaster XL 105, which we will be unveiling in the Western Hemisphere in September.

HN: Thank you for talking with us! ■



Bernhard Schreier talks to the Heidelberg News about the future prospects for the industry and Heidelberg Druckmaschinen AG.

**Bernhard Schreier,
Chief Executive Officer of
Heidelberger Druckmaschinen AG**

Bernhard Schreier, 54, has been the Chief Executive Officer of Heidelberger Druckmaschinen AG since October 1999. He studied mechanical engineering at the Mannheim University of Cooperative Education with on-the-job training at Heidelberg, graduating in 1978. Since then, he has held various positions within the company and spent stints working in France and the United States. Bernhard Schreier is married and has three children.



SCREENING TECHNOLOGY

“Total resolution”

Brilliantly reproduced colors, clean vignettes and high color stability: there are no doubts about the benefits of the new frequency-modulated screening processes. But what happens when you try to use these technologies in everyday printing work? Bernd Zipper investigated for the Heidelberg News.

Frequency-modulated screening isn’t really a new process any more, and manufacturers are constantly bringing optimized versions of the technology to market. They promise better quality, better stability, and no more problems with moiré effects. Heidelberg has also come up with a series of developments in this field in recent years. “Satin Screening”, launched in 2003, is primarily intended for high-end print products. It’s stirring up a storm in the market as more and more users are won over by its benefits. This screening technology really comes into its own for product images that call for truly clear details and an especially “clean” appearance (e.g., for watches, cosmetics, fashion and automobiles). Faithful

reproduction of every last detail, extremely smooth images (particularly in midtones) and clean vignettes give the image a realistic photographic quality. Unlike the first-generation FM screening process, Diamond Screening, Satin Screening has an all-new microstructure that features “harmonious” distribution of screen dots and does not leave any visible structures of its own in the finished print. While Diamond Screening suffered a few teething problems, for example difficulties in handling large, homogeneous areas of color and a certain disharmony in midtones with some motifs, Satin Screening’s new, much more complex algorithms overcome them. With

Satin Screening, individual dots come together to form random patterns more readily than they did with Diamond Screening. This achieves finer detail, which is particularly advantageous for very fine resolutions and scaled-down images. It also avoids the “saw-tooth effect” that conventional screening methods commonly produce along image edges and slanting lines. The GATF (Graphic Arts Technical Foundation) conducted an in-depth study of the benefits of FM screening in 2003. The U.S. researchers noted greater dot gain, but found that this technology achieved greater color purity, better skin tones and softer vignettes. The study also investigated the typi-

cal problems associated with certain resolutions. Unlike conventional screening methods, FM screens are measured in µm (microns) rather than “screen dots”. The GATF concluded that the resolution of a 30 µm FM screen provides the same scope for processing as a conventional 120 l/cm screen. If quality needs to be enhanced even further, a 20 µm FM screen will achieve optimum results. No problems were observed with duplex images or when using special, Hexachrome or HiFi colors. The researchers advised against using a 10 µm FM screen, since any improvement in quality is barely perceptible and the work involved and latitude for processing are equivalent to those with a 350 l/cm screen.

However, correct use of Satin Screening requires precise process calibration and constant process monitoring. Only then can the desired high-quality results be achieved. One convert to Satin Screening is Claus Dünninger, prepress manager at Mediahaus Biering in Munich. “Satin Screening is perfect for our customers in the antiques and fashion businesses,” he says. The company uses two Topsetter 102 machines in 3B format, which supply three Speedmaster SM 102 presses (one six-color, one eight-color and one 10-color press), plus a five-color SM 52. The prepress department images around 600 plates in 3B format every week – that amounts to about 32,000 plates or 22,000 square meters (26,312 square yards) a year. It also prepares another 160 plates a week for the SM 52, which adds up to around 8,000 plates a year. All this calls for very reliable work – particularly when it comes to Satin Screening. “To get the desired quality with an almost contone-like effect, we scan in all images at 450 dpi,” explains Dünninger. The company, whose customers include BMW and Escada, primarily uses matte and glossy coated paper on its sheetfed offset presses. Its experience with Satin Screening in its combination of paper and inks has so far been good.

“Most of the jobs we receive have been prepared for a 70 l/cm screen, and this data can be imaged perfectly with Satin Screening,” says Claus Dünninger. The company is now conducting preliminary tests with highly pigmented inks from Aniva to see if it can achieve even more brilliant results. But how much work went into testing and implementing Satin Screening? “We stick very closely to the standard offset printing process and have done the calibration with the Altona test suite and one of BMW’s own test forms. The results have been outstanding. Satin Screening has even let us salvage a catalog that we otherwise have printed without moiré,” says Dünninger.

Print production with Heidelberg Satin Screening and the standard offset printing process thus seems be less problematic than many users might think. Dünninger sums it up for us: “Images simply look more colorful. This may be because they catch the light differently on account of the smaller dot size, but in any case the result is strongly reminiscent of genuine contone images. It’s simply brilliant!” ■

Facts & Figures

- Bernd Zipper, born in 1967, is a technology and strategy consultant with many years of experience. He has specialized in PDF, interdisciplinary media projects, and the strategic use of publishing technologies. He writes for numerous trade magazines in Germany and elsewhere, including the Seybold Report in the USA and Deutscher Drucker and Publishing Praxis in Germany. He is also the author of the “PDF+Print” series of books. Zipper is the managing director and owner of ZIPCON Consultinggesellschaft mbH (www.zipcon.de) in Essen, Germany.
- www.heidelberg.com/hd/SatinScreening



Comparison of screening processes: a conventional screen (above, magnified) and the “Diamond Screening” FM screen (center, magnified). Moiré effects are clearly eliminated.



Satin Screening (magnified) is even finer than Diamond Screening, reproducing detail more clearly and producing “livelier” colors.

SPEEDMASTER XL 105

Setting new standards for industrialized offset

The new press generation for highly industrialized sheetfed offset printing – the Speedmaster XL 105 – combines outstanding productivity, quality and cost-effectiveness with high levels of automation, opening up new opportunities for print production.

Customers looking for a cutting-edge press expect extreme flexibility, fast throughput and the ability to efficiently handle frequent changes of inks, stocks and applications. Print quality is increasing and special effects are becoming more important as means of standing out from the crowd. The Speedmaster XL 105 from Heidelberg confronts these new developments head on. Stocks can be changed easily using presettings and storable air settings. Other features include fast ink changing due to the proven ink fountain liner and efficient washup devices, the new combined clamping system for faster, more precise changes of coating forms, and the Multi Loader System for quicker, simpler changing of screen rollers. The new Hycolor inking and dampening system rounds out this impressive list of features for ensuring top print quality. “With its larger 75 x 105 cm (29.5 x 41.3 in) sheet format and maximum production speed of 18,000 sph, the Speedmaster XL 105 is a whole new sheetfed offset press generation. Innovations in the inking and dampening system and the coating unit mean faster makereadies and stable production processes at all speeds. This considerably increases quality and production output – a fact that our XL customers can confirm based on practical experience,” explains Markus Höfer, the product manager responsible for the Speedmaster XL 105.

Innovation from the outset. The feeder of the Speedmaster XL 105 has been designed to separate and feed up to five sheets per second (equivalent to 18,000 sph) with absolute precision. Where sheet separation is concerned, transfer from the pile to the feed table is exceptionally smooth and reliable. To ensure optimum performance, the suction head automatically adjusts the control times to ensure the correct quantities of air at the right times when the press speed increases. A multi-stage sheet monitoring concept prevents double, multiple and damaged sheets from entering the press and harming key components, while ensuring maximum flexibility for special applications. In addition to the new feeder concept, important preset functions help reduce makeready times even further. These include positioning the active and passive side guide to the right format, adjusting the lateral sheet-separation blowers and suction head, and changing the height of the cover guides. The air supply to the central suction tape, active pneumatic side guide and drive rollers for feeding sheets can also be set in advance.

Robust printing units for all speeds. “The printing units have an extremely great impact on print quality. They need to run at 18,000 sph with a minimum of vibration and in totally accurate register. Special ▶



Safety features of the Speedmaster XL 105: consistently designed steps and catwalks make for safer, more comfortable operation of the press.



Design made by Heidelberg: good-looking and especially user-friendly to boost performance in the pressroom.

side frames ensure maximum rigidity and optimize print quality,” explains Michael Merz, head of assembly for the Speedmaster XL 105. Autoplate Advanced ensures fast, reliable plate changing and outstandingly precise clamping. The plates are unclamped fully automatically. Clamping also takes place automatically as soon as the operator confirms that the plate is lying against the register pins. Both the clamping and the sensor-monitored unclamping operations are rapid and efficient.

The Hycolor inking and dampening system. Hycolor, the brand-new inking and dampening system, has many impressive features that include less startup waste, high quality even in solid-printed areas, sharp halftone dots at all speeds, high contrast and fast inking unit response. Its excellent performance is achieved through its variable inking unit geometry and comprehensive automated settings. Using Hycolor, it is possible to operate the Vario system, standard and short inking units, various oscillator cycle settings, distributor phase shift and distribution of inking form rollers with ease via the Prinect CP2000 Center. If the standard inking unit is set, the inking unit enables stable inking even when applying large amounts of ink at high speeds. With the short inking unit setting, the inking unit responds even faster to color corrections and delivers improved reliability with low ink consumption. “With Hycolor, we have succeeded in developing a new, extremely stable inking and dampening system whose performance is unaffected by speed. In both the printing and coating units, we have perfectly met the prerequisites for outstanding print and coating quality with high levels of automation and robust components,” explains Frank Kropp, who has been in charge of developing the Speedmaster XL 105.

Coating unit as good as a flexographic unit. The new coating unit of the Speedmaster XL 105 delivers high-quality results with minimum makeready times. The positions chosen for the cylinders, screen roller and chambered blade ensure very easy access to all control panels. In addition, different pressures can be set between the screen roller and the coating blanket cylinder and between the coating blanket cylinder and the impression cylinder, either in parallel or only from the drive side to the operator’s side. Single-sided pressure setting allows the operator to compensate for any unevenness in the coating plate or the underlays. Small increments of 0.005 mm (0.0001969 in) enable very fine pressure setting and ensure optimum coating quality, even on very demanding jobs. “Besides optimizing the feeder and delivery of the Speedmaster XL 105, we have also redesigned the sheet transfer system. The double-sized transfer cylin-



Print sheet from a Speedmaster XL 105-6 for Raff Dieter GmbH & Co Offsetdruck KG in Riederich, Germany.

ders are a patented design that allows great flexibility for using different stocks. A patented front spoiler prevents air turbulence under the sheet, especially when printing on thin stocks at high speed,” says product manager Markus Höfer.

Preset Plus delivery. The delivery has also been completely redesigned. The special shape of the new gripper bars virtually eliminates air turbulence in front of and behind the bar. At the same time, the distance between the gripper bar and the sheet guide path has been reduced to maximize the efficiency of the venturi sheet guide plate. The result is practically flutter-free, stable sheet travel, even at high speeds. From the moment the sheet is taken over until it reaches the pile module, it is continuously supported by an air cushion defined when making the presettings and generated by venturi nozzles along the sheet guide path. The effects of the air streams created by the dryer and the suction devices have also been taken into account. All changes made to the presettings can be saved and retrieved for repeat jobs.

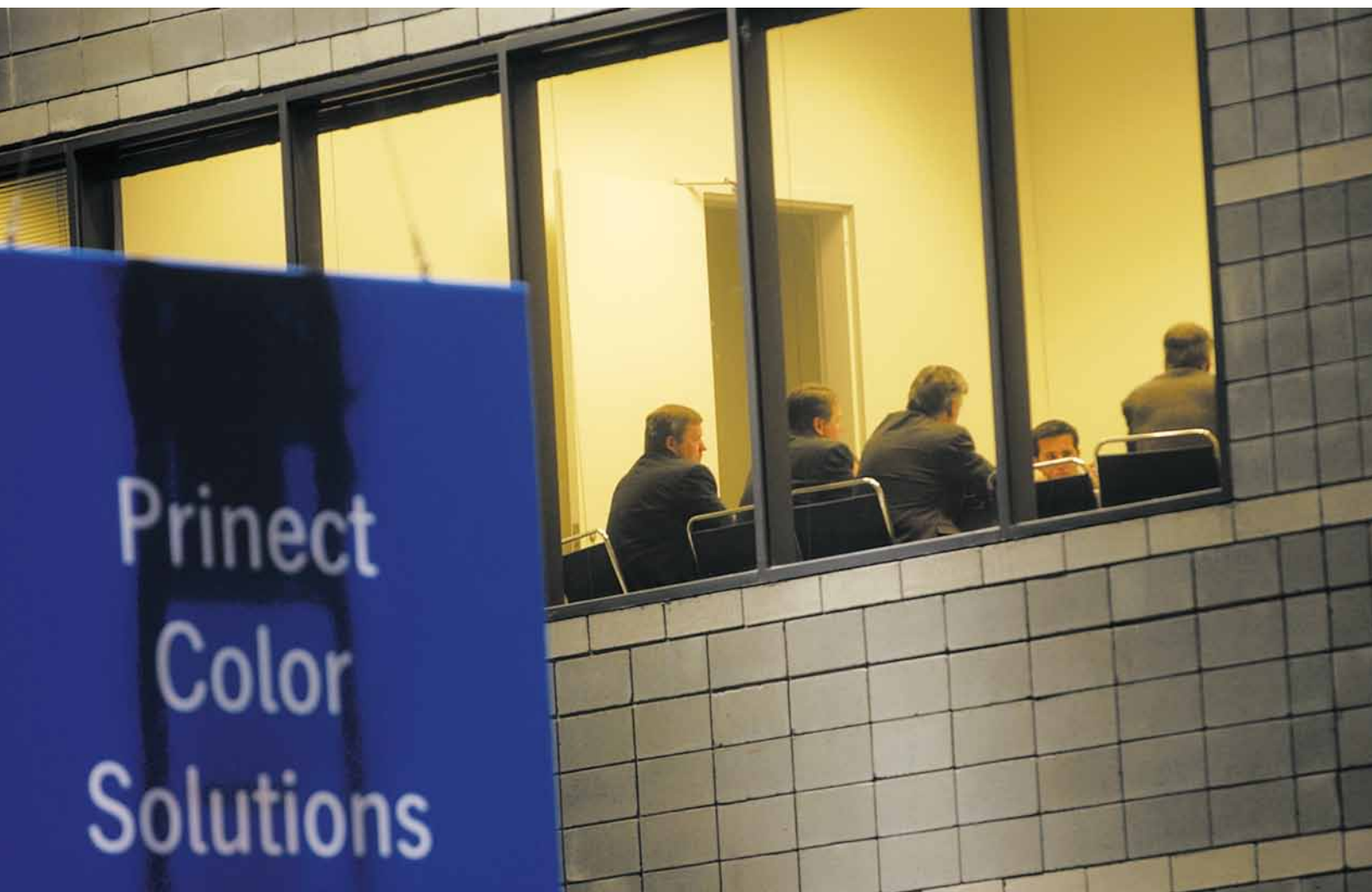
Peripherals adapted. The peripherals have also been adapted for the high speeds of up to 18,000 sph. On the Prinect CP2000 Center, for example, all important air settings, for everything from the feeder and printing units to the delivery and dryer, can be stored on a per-job basis. The Heidelberg Speedmaster XL 105 is an integrated press and peripherals concept that features numerous innovations and adaptations ushers in a whole new press category for highly industrialized sheetfed offset operations. ■

Facts & Figures

■ www.heidelberg.com/hd/XL105

EXPERT FORUM

When will the JDF standard be established?



At Graph Expo 2004 in Chicago, USA, Heidelberg presented the Prinect Experience Tour to let visitors experience an end-to-end Job Definition Format (JDF) workflow in a virtual networked print shop. At the event, industry and technology experts talked about how “networking and JDF” is developing. The speakers included William C. Lamparter (PrintCom Consulting Group), James Mauro, Ray Cassino and Dennis Ryan (Heidelberg USA), Frank Cost (Rochester Institute of Technology), Mark Jones (Imagination Integration LLC), and Jörg Bauer (Heidelberg Germany).

William C. Lamparter: Printers are asking themselves what JDF can really offer them. The situation with equipment in particular is causing insecurity – it is estimated that about 75 percent of the sheetfed presses now in use are at least ten years old. So what happens when you buy a new printing press and choose networked workflows, but you still want to use three-, six- or ten-year-old presses from different manufacturers alongside the new one?

Jörg Bauer: CIP4 is developing JDF specifications to ensure that systems from different manufacturers can communicate with each other. In return, it is the manufacturer's job to make sure that older equipment can be integrated into workflows, for instance by developing conversion functionality and tools. From Heidelberg's perspective, there is no doubt whatsoever that Prinect permits the integration of older presses. For example, we offer the Prinect Online Kit for integrating older CPTronic presses. Depending on the features and age of a press, the degree of possible is often not as high as with newer presses. But it's definitely possible to get it to read digital job tickets and pass production data to Prinect.

William C. Lamparter: So can we say that, as of 2004, JDF has already found a firm place in the core processes involved in print production and will be extending its ‘tentacles’ further outward until 2010?

Mark Jones: JDF will be an established standard by 2010. I have no doubts about that.

Frank Cost: Aren't we exaggerating a bit here? To state clearly where we are today: if I set up a print shop today, I could go to Heidelberg and simply buy all the Prinect solutions, build my plant and everything would be taken care of – I'd have an optimized JDF workflow. But I think it's important not to overstate what's realistically possible now.

Ray Cassino: That's why Heidelberg is now performing a dual role: first of all, we are linking processes with Prinect to create a seamless whole, and secondly we are working with other companies from the CIP4 organization to develop the standard further. The growing number of members shows that we are enjoying widespread support. The organization now has more than 270 member companies, which include all major press and CtP manufacturers.

Frank Cost: Is there already a machine or tool that can check and validate JDF?

James Mauro: Well, it's important to distinguish between the two aspects. On the one hand, the structure of a JDF has to conform to the CIP4 specifications. On the other, JDF has to contain information that is actually relevant. When a JDF file arrives, Prinect checks first whether its structure complies with the specifications and then to see if the

contents make sense and can be properly read and interpreted. It's also possible for the structure and content to be coherent, but low levels of automation in the machine fleet to prevent further processing.

William C. Lamparter: But it has to be possible to check JDF with a software program that tells us whether A is compatible with B, or that we can expect difficulties on such and such a machine.

Dennis Ryan: In principle, compatibility can be guaranteed if every system integrated in the workflow adheres to the CIP4 Interoperability Conformance Specifications (ICS). As manufacturers, we ensure that JDF data is converted for older machines and can be understood by them. And it goes without saying that we're involved in the comprehensive CIP4 interoperability tests to define the ICS. Not only that, we are also working intensively with printers and manufacturers to gain an understanding of their ideas and requirements. After this, specific tests are used to prepare the installations in order to meet customer expectations.

William C. Lamparter: And that's the way I expect things to remain for the next five years or so ... ▶



Mark Jones, CEO of Imagination Integration LLC, USA, is an independent consultant who provides advice on projects and decision-making processes, focusing on pre-press and networked production workflows.



William C. Lamparter, president of the Print-Com Consulting Group, USA, is a well-known expert on the printing industry and technology.

Dennis Ryan is the product manager for Prinect Production Solutions at Heidelberg, USA. He has 26 years of experience with color management and workflow systems.



Ray Cassino: No, the progress will be much more rapid than that. After all, there are lots of manufacturers and companies who are really keen to have products or processes that are compatible with JDF. They are working very hard to find solutions as quickly as possible. We anticipate that the ICS will be adopted this year (editor's note: the CIP4 organization has meanwhile done this) and that more and more installations will actually be used in production.

Frank Cost: There is one problem that is undeniable, though. Many people believe that JDF is something 'intelligent'. But JDF is not 'intelligent' at all. It's simply a hierarchically structured exchange file format, an empty receptacle for storing and extracting information. JDF doesn't actually do any work, either. It simply provides reliable information on what needs to be done, but in an efficient way.

William C. Lamparter: I agree, but not for setting up presses. Someone has to enter this information in the system. Otherwise the press can't be set up automatically.

Jörg Bauer: There's no doubt that data input is necessary, but a JDF-integrated solution means there is no need to enter the exact same data more than once on different devices, which offers considerable potential for increasing efficiency. For example, in integrated systems, paper formats are entered in an MIS, so that data doesn't have to be re-entered on the press. Presettings can be calculated fully automatically from the print job's content data, which reduces the manual setup work on the press. Like when a company uses Prinect Prepress Interface, which transfers the color profiles from a prepress system to the press. Speaking very generally, integrated systems make it possible to delegate responsibility for entering job-related data to people who enter this data right at the start of the process chain. These people should have a thorough knowledge of the

whole value-added process and enter all the data required for processing the job as early on as possible, ideally at the pricing stage. This prevents redundancies. It might even be a good idea to establish a direct link with the print buyer, who can then specify the details of the job over the Internet.

Ray Cassino: The advantages for print shops are reduced time and costs and more reliable processes. JDF doesn't directly provide a return on investment, however. The return is actually generated by integrated workflows within the print shop. And many people are now starting to understand this.

William C. Lamparter: Which other manufacturers has Heidelberg already carried out interoperability tests with?

Jörg Bauer: Heidelberg has performed tests with all key system and press manufacturers within CIP4. Customer projects are now also focusing on linking MIS to Prinect and there's a great deal of interest in this. Because there are countless MIS providers worldwide, meetings with experts from a wide range of companies take place regularly. And there are already installations in all of the main industrialized nations.

William C. Lamparter: So if, for example, you have demonstrated interoperability with six different management information systems, do you actually have to worry about anything else after that?

James Mauro: That depends on the implementation scenario. If the scenario involves a Heidelberg workflow, but the MIS comes from another manufacturer, we have to ensure that our customer's solution will work seamlessly when these different parts interact. Naturally, a third installation with a MIS that we are familiar with will be much easier to handle and more reliable than the first. The printer's main concern is making sure that the combination of systems will work



Sharing opinions: In Chicago, acknowledged industry and technology experts discuss the situation of integrated processes in print media companies.

without problem over the long term. If a print shop has a highly heterogeneous environment with lots of different machines and systems, it would be advisable to deploy a project manager to look after the individual systems and ensure that the components all work together as they should.

Mark Jones: More and more links are being established between products from different manufacturers, many more than were ever possible in the past. In cases like these, the print shop that wants the interface has to take charge of managing the project itself. But as soon as JDF is established, in other words once there are releases that let Ramage workflows work with the Signa Station and offer proven interoperability, for example, this situation will change. Then it will be possible for a print shop to simply install the software packages, set up the interfaces and everything will work like a charm. Although,

of course, individual system components will need to be upgraded for fine-tuning.

William C. Lamparter: Heidelberg has been criticized for allegedly walling itself in and not cooperating. The company has stated that it wants interoperability between its own products first, and only then with products from other manufacturers.

Jörg Bauer: Heidelberg has channeled a lot of energy into establishing the CIP4 standard and achieving a common definition for the ICS. Due to the large number of MIS manufacturers operating worldwide, we aren't in a position to implement what amount to 'privately configured' interfaces for marketing reasons alone, especially since they may not even correspond to the CIP4 standard. It's much more important for us to fulfill our responsibility to our customers, because they have to count on being able to

use their integrated systems for many years. If you look at the energy and commitment of the Heidelberg people in the CIP4 organization, it's quite clear that Heidelberg is not only an initiator, but also a determined promoter of the JDF standard. Three Heidelberg employees have been permanently assigned to the CIP4 organization, and we also send several people to all the interoperability tests. Rainer Prosi is the Chief Technical Officer of CIP4 and dedicates a great deal of time to the organization. Christian Anschütz, the Membership Officer, is also from Heidelberg, and I myself have a seat on the CIP4 Advisory Board.

William C. Lamparter: Is it really that es-



Raymond Cassino has been working for Heidelberg USA since 1997. As the director in charge of prepress product management, he is particularly interested in new CtP solutions, Digital Proofing processes, and CIP3/CIP4 technologies.



Jörg Bauer is the vice president responsible for Prinect product management at Heidelberg Germany. He has worked for two years on the CIP4 Advisory Board, focusing on optimizing integrated processes for the print media industry.



Frank Cost is a professor of digital publishing and printing technology at the College of Imaging Arts and Sciences of the Rochester Institute of Technology, USA. He advises a number of well-known companies and research institutions in the graphic arts industry.



James Mauro is a product manager for Prinect solutions at Heidelberg USA. As the speaker for the CIP4 organization, he is playing a key role in developing networked workflows and the JDF standard.

sential to have an MIS to implement networked workflows?

Dennis Ryan: We recommend that our customers start off in the areas where they have the most problems and where ‘quick wins’ are possible. If a customer is happy, for example, to use an Excel spreadsheet or an old, non-integratable MIS to estimate costs and do the accounting, but has serious problems with color presetting and keeping waste at acceptable levels, then they should of course focus first on their production workflows. Our past experience quite clearly shows that a step-by-step approach is always to the customer’s advantage.

William C. Lamparter: But companies that are actually already implementing this generally have an MIS. Otherwise JDF wouldn’t actually provide any benefits, would it?

Jörg Bauer: As already mentioned, the majority of print shops are aware of the benefits of networking MIS and production, which include sending electronic job tickets to production machines and generating relevant feedback for job tracking and actual costing. There are also major benefits in the prepress stage. Where job processing is concerned, print jobs are specified to enable costing to generate quotations. This involves capturing

a great deal of information and data, which can then also be used in the impositioning process. We can pack this information into JDF in the form of specifications and automatically create an original. This is of tremendous help, and not just in terms of the time saved, but also and more importantly for preventing errors.

William C. Lamparter: But who creates these specifications?

James Mauro: The print shop staff responsible for job processing create them. I don’t think it’s really that complex. The job processing staff don’t have to bother with JDF directly, they only need to input all the required data into their systems. They enter the sheet size, for example, specify the number of pages, and talk to the customer about how many colors he wants. The challenge is now for MIS manufacturers to write this information in JDF in a manner that complies with CIP4/ICS and for workflow providers to evaluate this data properly and implement it in automatic workflows.

William C. Lamparter: Okay, but they don’t program the job. Someone still has to decide, for example, which press the job should be printed on.

Jörg Bauer: Yes, obviously you have to know during impositioning which press will be used or, more specifically, the format the job will be produced in. But it’s important to know that even during the costing phase. And you can always assign the press at a later time, for example using an electronic planning board. For actual costing, it is then just as important to retrieve the data from this press too, so you can immediately how the change has affected the costs as compared with the original plan.

Mark Jones: When you do your costing, you naturally also assign the presses. You estimate how long it will take to set up the job and run it through the machine – and you do this not just for the press, but for all the other machines, too. The program takes care of all this automatically using integrated performance tables. You say, for example, that it’s a six-color job with a run of 15,000 copies, since that’s relevant to the machine’s setup time. Everything else happens automatically. The program then reliably predicts the expenditures.

William C. Lamparter: So what is the advantage of automated machine setup? If I save three minutes, it can’t matter much.

Dennis Ryan: Automation primarily ensures a consistent level of quality in the setup pro-

CIP4 and JDF – what’s it all about?

CIP4 is an international consortium of manufacturers, organizations and print service providers based in Switzerland. It has pledged to develop JDF, promote more widespread use of it, and establish it as an industry standard.

The goal of Job Definition Format (JDF) – along with Job Messaging Format (JMF) – is to promote the integration of business and production processes in the graphic arts industry by communicating standardized data. JDF combines data from existing standards such as Print Production Format (PPF) and Portable Job Ticket Format (PJTF). Because JDF is fully based on the standardized, Internet-compatible meta-language XML, files can also be sent and used via intranets or the Internet.

For more information, visit:
www.cip4.org
www.heidelberg.com/hd/Cip4

cess. After all, you can have a very well-trained operator doing the makeready work who gets everything perfect. Or you can have a less experienced operator who enters incorrect data or sets up the cutter the wrong way. So the benefit isn’t the time saving alone, even if it does enable considerable cost savings, particularly as print runs and throughput times keep getting shorter. What’s much more important is that the correct job data is provided – it doesn’t have to be entered manually several times – and that the production data flows back to the MIS once the job is finished.

Jörg Bauer: The processing history can be tracked and accurate actual costing generated via JDF or, more precisely via JMF reports, so that management has all the data it needs to run the company in realtime.

William C. Lamparter: But incorrect information and errors can also enter the workflow in the planning stage, and not just as a result of mistakes made by the operator.

Ray Cassino: You’re quite right. If you’re looking to send job data straight to the presses for automatic setting, the job processing operators or planners need a good understanding of the production process. That’s why the integration is such a challenge for

employees. Conversely, integration offers sustainable advantages for job costing and calculation, productivity and quality.

Jörg Bauer: Integration in no way makes highly skilled employees redundant. Only a combination of good workers and highly integrated systems enables consistently high levels of productivity and optimized quality. This is crucial for maintaining or increasing competitiveness, considering that print runs and throughput times keep getting shorter. As described in the example, we shouldn’t forget that some responsibilities get moved ‘upstream’ and that, with the right planning and appropriate employee training early on, additional long-term benefits can result. ■



FINANCING

A custom-tailored model that offers competitive advantages

When it comes time to invest in a new printing press, it's important to select the right financing model – keeping the outlay low is essential for cost-effectiveness. Whether leasing or taking out a loan is the wisest choice depends on your particular situation.

The days when competition was mostly limited to national markets are long gone. In fact, today you'd be hard put to find a single sector of the economy in which companies don't have to compete in globalized markets. Print shops now also find themselves competing in an international field, especially for larger orders. Those that succeed do so by submitting competitive bids and consistently focusing on quality. And the situation is much the same in the financial sector. Like manufacturers, banks also have to run a tight ship. This includes making sure to avoid the risk of clients defaulting on loans, especially when dealing with business customers. As a result, printing companies looking for credit to finance new equipment now often run up against larger obstacles than used to be the case.

Yet financing is a key factor for boosting your competitiveness. And much more is involved than simply whether your request for financing is approved or rejected. The costs involved also have a major impact. Because investments in printing equipment typically involve quite substantial sums, even small differences in the interest charged can amount to a lot each year. "For companies in the printing industry, buying new equipment is a big step. And financing mistakes can have a devastating effect," stresses Holger Ehrsam, member of the management team and responsible for international business at SüdLeasing Group in Stuttgart, Germany.

Two basic options. It is worthwhile to begin by considering both possibilities: taking out a loan versus leasing. Both have advantages and disadvantages, so it's impossible to make sweeping generalizations about which one is the better alternative. "It really depends on a print shop's unique situation," says Holger Ehrsam, who specializes in value management and corporate financing at Commerzbank.

A lease is basically a combination of a rental agreement and a purchase contract. It is a cost-effective way of using a press for a while with the option buying it later; generally you get the chance to purchase the equipment when lease expires. However, there are several

important legal differences between a lease and a conventional rental agreement. Leasing is a three-way transaction involving the manufacturer, a lessee (user) and a lessor (the financing party). For example, if a printing company decides to lease a new sheetfed offset press, it notifies the manufacturer, which then sells the press to the selected lessor. The press is delivered to the print shop, which pays the agreed-on installments to the lessor. The lessor may be either a subsidiary of the manufacturer or an independent company.

In contrast to conventional rental agreements, with regard to liability the lessee is in virtually the same situation as if the equipment had been purchased directly from the manufacturer. In practice, this means that the manufacturer is the one to contact about warranty claims, for example.

Value retention factored in. One of the main advantages of leasing as compared to borrowing is that, unlike bank financing options, the value retention of the financed press plays a greater role. A lessor with considerable industry expertise can predict how well a press will retain its value and therefore also the financing risk much more accurately than a normal bank, which will typically tend to play it safe by assigning a much lower value to loan collateral. Because of this, leasing can provide companies with a much better deal for a new equipment, especially if a press or other machine is likely to have a relatively high resale value after several years, depending of course on its make and how well it is maintained.

When it comes to designing the details of an agreement, the possibilities are as diverse as the goods you can lease. No matter whether you opt for special payments at the beginning or end of the term of the lease, or for fixed or variable payments, there is plenty of room for maneuvering. And a number of attractive leasing models exist for print shops in particular.

First of all, it is important to distinguish between "financial leasing" and "operating leasing". Financial leasing more closely resembles buying on credit. "From the lessee's point of view, this option is much like purchasing equipment financed by a third party," it says in the leasing brochure of the Swiss bank UBS. These agreements are fixed for a certain number of years and may not be cancelled ahead of time. The lease payments are generally calculated so that, by the time the lease ends, the leased equipment has largely been paid off and ownership of it can be transferred to the lessee. Leasing agreements with short basic lease terms fall into the category of operating leasing. In practice, these agreements cannot usually be cancelled in the short term – at least, not without incurring a financial loss. Be-

How are interest rates moving?

Country	3 months		10 years	
	01/05	01/06	01/05	01/06
Euro zone	2.1%	2.4%	3.7%	4.8%
USA	2.6%	4.1%	4.3%	5.5%
Japan	0.1%	0.3%	1.4%	2.2%
United Kingdom	4.9%	4.4%	4.5%	4.5%
Switzerland	0.7%	1.5%	2.3%	3.3%
Australia	5.3%	5.8%	5.4%	6.0%
Canada	2.5%	3.3%	4.3%	5.3%

12-month forecast by Deutsche Bank for interest rates on three-month deposits and current yields of 10-year loans.

cause the basic costs are often higher, this option is rarely used for financing long-term purchases of high-quality presses. Operating leasing is more commonly used to finance items that have short service lives, such as IT equipment.

Models with variable components. In recent years, the leasing sector has spawned several innovative concepts for tailoring financing options as closely as possible to the intended utilization and output of financed equipment. Some providers therefore offer leasing agreements with payments that can vary depending on how intensively the equipment is used. Although the lessor's revenues drop during periods of low utilization, the press depreciates more slowly because it is operated less. The benefit for the user is the ability to optimally balance income against costs by adjusting the lease payments accordingly.

However, Manfred Grundl and Stephan Knuppertz, who are responsible for financial services at Heidelberger Druckmaschinen AG, say that the usefulness of these models is limited. Grundl explains that "they only makes good business sense if the variable lease payments take into account how a machine depreciates." In any case, he says, this variability encounters limits when utilization falls below a certain minimum level. Clauses in the lease agreement covering this aspect typically place the associated risks squarely on the user. "Because they incorporate fixed costs, for instance for replacement parts, servicing or insurance premiums, more often than not utiliza-

tion-dependent models are significantly more expensive in practice than conventional financing instruments and therefore not a viable option for our customers," concludes Knuppertz.

Conventional financing also has its advantages. Alongside leasing and its many variants, there is also much to be said for buying on credit. A great deal can be saved, especially when making large investments, by carefully comparing providers and selecting a loan agreement with low interest rates. Especially companies with considerable financial resources can minimize their costs by taking advantage of bank financing options. "If a company makes a large down payment, buying on credit can be a more cost-effective option than leasing," says Commerzbank's Holger Ehrsam.

Purchasing by installments and lease purchase (or hire purchase as it is known in some countries) also figure in the list of classic financing tools. With installment purchase, the manufacturer takes on the role of lender: the customer buys the goods and receives service and financing from a single source. The buyer owns the financed object from the outset, although the lender generally demands suitable collateral. With lease purchase, by contrast, the press belongs to the lessor during the rental period, with ownership being transferred automatically after receipt of the final payment.

Business-management aspects are not the only criteria for choosing among leasing, borrowing, installment purchase and lease purchase. Tax and balance-sheet considerations also play a role for deciding between leasing and conventional financing models, depending on national taxation laws and any planned financial reforms. For instance, financial leasing requires the financed equipment to be capitalized in the balance sheet if the lessee prepares its financial statements in compliance with the internationally recognized US-GAAP or IAS accounting standards. Purchasing and leasing also affect the sales or VAT tax due in different ways depending on the country.

Insuring against loss of use. Regardless of the financing model selected, third-party-financed investments should be insured against loss of use. If a large share of the investment is externally financed, if a press – and especially expensive an expensive one – is not used to generate revenue during an extended period of time, because of a ►

“For companies in the printing industry, buying new presses is a big step. And financing mistakes can be devastating.” *Holger Stuhlmann*

Heidelberg Financial Services

Heidelberg Financial Services comprises all of the sales financing activities of Heidelberg Druckmaschinen AG. Heidelberg now manages a global financing volume of about 600 million euros (about 791 million U.S. dollars) and has over 80 employees providing consulting and credit management services. Worldwide, six financing businesses and a large number of financing specialists at its local sales companies offer advice to customers and help negotiate financing issues.



Manfred Grundl (left) and Stephan Knuppertz, the joint heads of Heidelberg's Print Finance organization in Germany, run the company's global sales financing activities.

lack of jobs or technical problems, this can jeopardize a company's very existence. Consequently, both lending banks and leasing companies generally demand that this risk be suitably covered by insuring the equipment. In addition to this, it may be prudent to take out gap insurance for the first few years when leasing capital-intensive presses. In the event of the total loss of a press, the lessee only receives its market value as determined by the insurance company. Depending on the leasing model, this sum may be much less than the book value assigned to the press by the lessor, and the lessee must bear all or part of the shortfall. Gap insurance is intended to cover this difference.

In view of all the details that can influence the financial and fiscal calculations, finance planning is a daunting task for everyone concerned. It is essential for the user of a press to realistically assess the financial possibilities. It is key to objectively identify the opportunities and the risk of utilization fluctuating, and to decide whether you intend to keep using the press on a long-term basis or replace it sooner to take advantage of technological advances. “The primary issue is often not whether to raise the money by leasing or borrowing,” says Manfred Grundl. “It is much more important to tailor the financing model to your cash flow. This flexibility is only given within the scope of an arrangement that makes good business sense for you. Ultimately, neither a leasing company nor a manufacturer can assume the risk for your investment,” stresses Grundl.

Regardless of whether a press is financed by outside lenders or via the Group-owned financing companies of Heidelberger Druckmaschinen AG, the company's financial advisers are available to help create a workable financing concept. In view of the increasingly complex requirements for financing, small and medium-sized print shops are glad to tap this specialist expertise, according to Stephan Knuppertz: “Our financial services business is growing in importance – for both our customers and us.” ■



Heidelberg CFO Dr. Herbert Meyer talks to the HN team.

“We see ourselves as advisers”

The Heidelberg News spoke with Dr. Herbert Meyer, the Chief Financial Officer of Heidelberg Druckmaschinen AG, about financing equipment purchases in the printing industry.

HN: Dr. Meyer, what does Heidelberg offer for financing sales?

Dr. H. Meyer: Our core task here is to mediate between our small to medium-sized customers and financial service providers, such as banks and leasing companies, all over the world. We also offer financing options via our Group-owned Print Finance companies.

HN: Does that mean you are competing with banks and leasing companies?

Dr. H. Meyer: We don't see ourselves as competing with them. Rather, we act as independent, impartial advisers who are also in a position to devise our own financing solu-

tions when required. In most countries, we primarily work at the ground level with prominent banks and lessors. This can occasionally pose problems if, for example, the financial market in a particular country is still developing or the banks are very reluctant to lend money because of a high industry concentration and pressure on margins. In such cases, if a print shop with a good credit rating is having difficulty finding financing opportunities, we can offer a solution of our own solution – and this is the focus of our activities.

HN: How does it work?

Dr. H. Meyer: If the customer wishes, we provide support for drawing up a financing concept. We have an excellent track record in bringing printers and finance partners together. Ultimately, it is important to responsibly supervise this process to prevent investment projects that make good business sense from falling through as a result of vague, unjustified reservations on the part of financing institutions.

HN: ... who often base their decisions on figures from the past.

Dr. H. Meyer: That's right. The years of recession in the printing industry have taken their toll. Nowadays many companies looking to make a major investment encounter problems because the figures don't seem attractive to financiers at first glance. But it's important to give them an idea of a print shop's actual processes and potential earnings. At the end of the day, it doesn't really matter whether a customer gets credit from a bank, from one of our partners, or from us. What's important is that creditworthy customers can make use of our consultants' expertise to identify the best option for financing their investments. ■



SWITZERLAND

The Order of the Press

An order of Catholic nuns publishing a daily newspaper? That's right! This order owns a print shop. What's more, they run it as a joint stock company comprising two bookshops, a publishing house and a copy shop! This unusual setup is surely unique in the world – only to be found here at the St. Paul print shop in the Swiss town of Freiburg.

When you enter the former convent at No. 42, Boulevard de Pérolles in Freiburg, it is like walking into a history book. Staff and visitors ascending to the second floor come face to face with a life-sized stained-glass image of Johannes Gutenberg, the inventor of letterpress printing. The daylight shining through the glass façade of the building illuminates his likeness. Since the order was first founded, the convent and its inhabit-

ants, the Sisters of St. Paul, have been dedicating themselves not just to the work of the Catholic church, but also to the works of printing industry. These days, the sisters have moved to a new residential building nearby, leaving the entire building of the convent for the print shop. But under the eaves, two floors above the pressroom, the order still has a beautiful chapel that is probably unique in the world. The upper floor now holds the offices of the printing com-

pany, but the old wooden wardrobes used by the sisters who once lived here still stand in the corridors.

In the beginning ... It all started on October 1, 1871 when the first edition of “La Liberté”, the French-language newspaper of the Canton of Freiburg, was published. The newspaper was founded by Joseph Schorderet, a Catholic priest who also founded the convent and the Order of St. Paul. From the very beginning, the sisters were trained in press work and as print shop assistants for prepress operations. Today, “La Liberté” is the best-selling daily newspaper in the region and one of the leading papers in French-speaking Switzerland, and it is still published by the order. “It’s a newspaper that covers all topics, just like a normal daily paper, and has strong coverage of international news,” says Sister Alice Fries, who comes from Winterthur near Zurich in Switzerland and joined the order in October 1959. She has worked in the print shop ever since, and is still responsible for paper purchases and administrative tasks today.

The Convent of St. Paul was founded in 1873, reaching its zenith in the late 1950s, when the order had around 240 sisters. Today there are still about 120, with most novices who have joined the order over the last few years coming from its branches outside of Switzerland. The order is active in six countries: Switzerland, France, Cameroon, Vietnam, Madagascar and Senegal. It also operates print shops there, mainly mission shops that do work for the Church. In their earlier days, they mainly produced printed matter related to missionary work. Today, they handle a great deal of business and advertising material as well, especially in Cameroon and Senegal. The order also used to have a print shop in France, but it became an independ-

ent company three years ago. The convent in Freiburg is in close contact with its overseas print shops and helps them improve training and purchase new machinery. The print shops work almost exclusively with Heidelberg presses, since St. Paul’s good relations with Heidelberg were extended to the mission print shops when they were founded. The fact that Heidelberg offers excellent local service all over the world is a great benefit to the order in this respect.

The times they are a-changing. A few decades ago, nuns were still to be found in the pressroom and the prepress room and still looked after paper purchasing and administration for the company, which was called Paulus-Druckerei und Buchhandlungen AG. Today, the undertaking is called St. Paul AG, and the name isn’t the only thing that’s changed. The sisters now have secular specialists working in the company’s various departments. However, they retain powerful voting rights in the joint stock company, with Mother Superior Michèle Gisiger sitting on the board of directors along with several other sisters and various secular members. “Our voting rights are always used in the interests of the company and the jobs it provides,” say Sisters Alice Fries and Theres Rotzler. A few of the sisters are still employed in typesetting and commercial administration work, and in the publishing house and the bookshop that also belong to the joint stock company. “Only three sisters are still directly employed in the print shop. When I joined, the number was more like 70,” says Alice Fries, proudly adding that “the joint stock company and print shop are still wholly owned by the order.”

A cutting-edge print shop. The joint stock company has a total of 330 employees, about 180 of which work in the print shop, 80 in the editorial and marketing departments of



This peaceful chapel lies above the pressroom under the eaves of St. Paul’s.

“La Liberté”, and the rest in the publishing house and bookshop. Over 120 newspaper delivery staff also work for the company. The print shop also produces and dispatches the German-language newspaper “Freiburger Nachrichten” and various weekly and customer magazines. Its main customers for sheetfed offset work are publishing houses, advertising agencies and a number of direct clients for which it produces large customer information brochures.

Full-service print shop. Today, the St. Paul



St. Paul AG – Where tradition meets the modern age. You only need to look at the old (left) and new entrances to the print shop to see it!

print shop is the largest media company in the university town of Freiburg. It is a cutting-edge, full-service operation with a prepress facility using CTP, a pressroom and finishing operations. The company has a networked workflow that extends right into the pressroom. Finishing operations aren't linked to this workflow, however, since only smaller jobs are finished in-house, with most of the work being outsourced to a nearby bookbinder. "We handle saddlestitching work ourselves – that's essential for all the magazines we handle. But when it comes to books, we only do adhesive binding for small runs and send the rest out for finishing. For sheetfed jobs, we handle all the cutting and folding work and 80 percent of the brochure final assembly work in-house," explains Michel Bersét, 60, production manager of the print shop. "We've outsourced most of the finishing work, since we don't have the order volume to justify the investment we'd have to make to handle all of it," he says.

"We use Heidelberg equipment for all our

sheetfed offset printing and finishing activities. The very first presses purchased when the print shop was founded came from Sch-nellpressenfabrik Frankenthal Albert & Cie., the predecessor of what is now Heidelberger Druckmaschinen AG," explains Anton Burri, managing director of the print shop. "Our print shop is also ISO-certified. Thanks to a policy of preventive maintenance on our equipment and the reliability of the presses, we have our production line fully under control, which means that we rarely have to call on Heidelberg's service team for any non-routine assistance," he says. The print shop works two shifts and handles everything from short print runs to full-scale newspaper runs. Where books are concerned, the run sizes are typically between 2,000 and 10,000 copies. Orders for the company's own publishing house, AcademicPress, which is associated with the University of Freiburg, are generally for less than 1,000 copies. For commercial printing, runs tend to be longer. St. Paul's generally handles high-caliber printing orders. At present, sheetfed offset

accounts for around 40 percent of the company's total workload.

One of the specialties of the print shop is its ability to print and work in two languages. "Here in Freiburg we're on the border between the French- and German-speaking parts of Switzerland, so we can work in either French or German. This gives us a major competitive advantage over print shops in the rest of the country, which can only handle one language. For example, we print two daily newspapers on our 64-page web press, one in French and the other in German. In sheetfed offset, where we mainly print books and commercial items such as advertising materials, the proportion of German-language products is slightly higher than French. All our services, from prepress right through the entire printing process, are offered in both languages with total competence," says Anton Burri. Thanks to this bilingual capability and the high quality of the print shop's work, it boasts a loyal clientele

“All our printing services are offered in both German and French with total competence.” Anton Burri



Anton Burri, Theres Rotzler, Michel Bersét and Alice Fries in the pressroom at St. Paul's (left to right).

across Switzerland. In 1961, when Anton Burri joined the company, he was one of the first secular members of the prepress team and also one of the first men to be taken on board by the convent. Since then, the sisters have gradually been withdrawing from the active side of running the print shop. This is because today's printing industry calls for a great deal of specialist knowledge, and also because the order's intake of new blood is falling slightly and its members have to be employed in roles more vital to the order.

Focus on young people and training. The print shop faces the same problem as many others around the world: finding good new recruits for the pressroom is becoming more and more difficult. As the vice president of the Swiss employers' association for the graphic arts industry, Anton Burri knows what he's talking about. "Having observed matters for a number of years, I believe that a combined system of on-the-job training and college teaching is still a valuable option. However, companies are increasingly abandoning apprenticeship systems because they are either unable or unwilling to invest the time and money required. We're therefore moving towards a system where all training is provided in the classroom. It's a shame that the practical side is being lost."

While it's becoming increasingly difficult to find new manpower for the pressroom, there are always plenty of applicants for jobs in prepress. "The whole thing's a problem of social perception – people still think that printers go home at the end of the day covered in ink from head to toe. It's all because of poor marketing on the part of the sector. We don't communicate properly about technical developments in the profession and the skills an applicant needs to have. These days, we're looking for people to operate cutting-edge press control systems rather than traditional Gutenberg-style printers. However, at St. Paul's we're not too worried about having to make do with casual workers because we can't find professionals. In our finishing operations, one specialist sets up the machine, and the production process can then be carried out with the aid of assistants. I can well imagine that we may end up with a similar situation in the pressroom too," says Anton Burri.

"Joseph Schorderet was a very dedicated founder and a modern thinker. I'm sure that if he were to found an order today, it would be more heavily involved in new media than in traditional printing," says Anton Burri. Alice Fries and Theres Rotzler agree with him. The order has, in fact, already moved into

new media, sometimes for very practical reasons. "In many developing countries, for example, radio is a more important means of communication than newspapers, because many people can't afford to buy printed matter and sales are very difficult," explains Sister Theres Rotzler, who joined the order in 1959. She worked in the print shop's finance and human resources department from 1961 until 2000.

Very nice people to work for! The unusual and unique combination of a print shop and an order of nuns has always stirred up talk. "It's not every day that you find a convent that owns a print shop and publishes a daily newspaper. But for us, it's great to have owners whose thoughts aren't dominated by shareholder value. That's the really special thing about this arrangement," explains Anton Burri. Theres Rotzler sees another major advantage in the setup, too: "The unique atmosphere here at the convent also makes itself felt in the working environment. Most of our employees join St. Paul's at the beginning of their careers and remain with us until they retire. The same applies to our clients, many of which have been satisfied customers of the print shop for decades." ■

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THE NETHERLANDS

A touch of genius?

The Dutch association of book printers, the KVGGO, has been publishing its “Kerstnummer Grafisch Nederland” since 1913. This publication has by now achieved cult status in the industry. “Kerstnummer” is the Dutch term for Christmas edition. But if readers expect the usual Christmas fare, they will be sorely disappointed.

The “Kerstnummer Grafisch Nederland” provides, in compressed form, a sweeping overview of Dutch book design and printing, and over the years it has become a true collector’s item. Since the 1950s, the KVGGO – which now counts some 2,500 members – has selected a different Dutch designer for each issue. These designers are given free rein to express themselves on a subject such as ‘water’, ‘time’, ‘mobility’ or even sophisticated topics like ‘the interplay of eye and psyche’. So collectable is the series that some editions even change hands for several hundred euros. Another unusual thing about this project is the fact that between 20 and 30 printers print just a few sheets each, most of them using Heidelberg presses. They receive no fees for this work – the honor of being asked to take part is reward enough. Anyone invited to do so by the KVGGO is practically guaranteed access to the Valhalla of the guild of Dutch book printers.

Irma Boom has been promoted to a quite different Valhalla, however. Although she is only 44 years old, she is already considered the “grande dame” of Dutch book designers. To date she has designed more than 200 books, including the Work Spirit Book published by Vitra, the Swiss furniture design icon. Her ‘tour de force’ so far – and one that is rightly considered a masterpiece in the industry – is a book published in 1996 to mark the 100th anniversary of the Dutch SHV Group. With no fewer than 2,136 pages from start to finish, it is 11 centimeters (4.33 inches) thick, weighs several pounds, and has no table of contents, page numbering or index. “The book is a journey,” she says, explaining the reason behind this unusual publication. “You find things in it that you don’t want to find and make completely chance discoveries.” She worked on the project for more than five years, spending three-and-a-half of them on research alone. Her client placed no restrictions on her, apart from specifying an exact date for completing the job.

Making the most of artistic freedom. It is precisely this freedom that Irma Boom values so highly. The idea of rigid briefings is something she categorically rejects: Either her clients leave her to get on

with things in her own way – or she will leave them to do likewise. Irma Boom knows what she wants and is very confident of herself and her abilities – but without coming across as dominant, arrogant or distant. Perhaps unsurprisingly, her reputation has already extended to the United States, a society based on the very concept of freedom and unlimited opportunity. For the last 12 years she has been lecturing in graphic design at the world-renowned Yale University in Connecticut. Twice a year, for a period of two weeks each, she swaps her drawing pad and Mac for blackboard and chalk. Boom, who now lives in her adopted city of Amsterdam, was contacted by the KVGGO some years ago. They asked whether she would be interested in designing their Christmas issue. She declined, stating that, if she did accept in the future, it would only be if the subject was related to one of the key issues facing the industry. “Why not do something on the subject of color?” she asked the KVGGO. And six years later they commissioned her to do precisely that.

A love of freedom and taking a thorough approach to things are not mutually exclusive. On the contrary, whenever Boom does something she does it thoroughly. She immerses herself in her client’s world, collects impressions, absorbs them, lets them mature, comes up with ideas, rejects them, comes up with new ones, and marries ideas to content, images and words. For the Christmas 2004 edition she read books about everything related to color. Books on chemistry. Book on physics. Books on printing, inks and printing systems. “There was simply no end to it”, she sighs, recalling. “I seemed to have stumbled into an endless procession of color,” she adds. “There’s color everywhere you look – color you can see and color you can’t.” It was this seemingly simple finding that finally gave her the solution. The idea suddenly clicked: she decided to bring the hidden colors, the colors you can’t see, to the surface.

Boom searched for pictures by famous artists of different epochs – from Leonardo da Vinci, Caspar David Friedrich and Auguste Renoir to Victor Vasarely and Andy Warhol. “If you take van Gogh, you immediately think of warm yellow tones. The colors that Rembrandt



This work of art (top) stems from Robert India and was published by American Image. Below it is the relevant page (right) from the “Kerstnummer” (left).

used tend to be darker,” explains Boom. “However, every picture has many more colors than we can see with the human eye.” Fortunately, much of what humans can do can now also be done by computers. Irma Boom worked with bits and bytes to distil a chain of color pixels from each of her 80 selected pictures, enlarged these and used them to develop strip-like color diagrams. The 240x315 mm (9.45x12.4 in) Christmas edition reproduces 80 of these diagrams on facing pages. These double pages with their very different colors are enclosed by a monochrome page consisting of what, in Boom’s view, is the image’s most attractive color based on the Pantone color scale.

So far, so complicated. But not complicated enough. Anyone looking through Boom’s Christmas 2004 edition will probably be disappointed – or at the very least, irritated. This is because the reader only sees the monochrome pages and not the colorful diagrams. At first glance, the publication seems to be no more than a book of samples from a manufacturer of brightly colored paper. But it’s important to look deeper. To get to the multi-colored diagrams, the reader first has to solve Boom’s ‘hide-and-seek’ puzzle. This is done, similarly to the French Gallimard books, by using a knife or letter opener to cut through the faint perforation between the monochrome pages and pages containing the diagrams. The 80 PMS colors were compiled in the color laboratory of Tetterode-Nederland BV, Heidelberg’s Dutch sales partner. Tetterode not only sells printing

presses, but also supplies the graphic arts industry with printing plates, films and inks. The Amsterdam-based company also supplied the complete range of inks for printing the 80 color diagrams.

“When I presented the first drafts to the people at the KVGGO, they were absolutely speechless to begin with,” explains Irma Boom with a wry smile. “But then they must have come to the conclusion that I hopefully knew what I was doing.” And indeed she did. “Today, everyone completely supports the concept she selected,” stresses project manager Alwin van Steijn. Irma Boom found that some of the readers who received the 5,000 printed copies distributed to print shops, customers and designers were disappointed with the results. They didn’t understand the concept involved. Others, however, experienced it as a “minor miracle”, to find more and more wondrous colors as they opened the pages one at a time. Van Steijn puts it in a nutshell when he says, “Some regard it as a major work. Others see it is absolute rubbish.” Opinions are polarized, and there is nothing in between the two extreme views. Irma Boom couldn’t be more pleased: “Polarization is definitely the best thing that can happen to any artist.” ■

Facts & Figures

■ The Christmas edition can be ordered from www.grafischnederland.nl for 49.50 euros (65.30 U.S. dollars). Stocks are limited, however.

GERMANY

Keeping up old traditions

There’s nothing very special about taking a bath. Unless, of course, it’s in front of an audience and you’re fully clothed at the time. But then that’s all part of the “dunking” ritual that’s traditional in Germany when apprentice book printers complete their apprenticeships.

Twenty-six young apprentices – 15 men and 11 women – are ushered into the room accompanied by a fanfare. Some of them are nervous, while others appear cool, calm and collected as they gaze at the crowds that have squeezed into the arch-fringed court of Ratzenhofen Palace near Mainburg to watch the spectacle. The initiation master Horst Pinsker yells out the command “Take hold, men!” The four aides, each dressed in traditional costumes that date back to the Gutenberg period, grab their first “victim”. To a roll of the drums, he is bound to a chair that has been primed with a wet sponge designed to make a chilling and damp impression on his posterior. And as if that weren’t enough, one of the aides then wrings out another sponge onto his head. This is then followed by a pail of water, after which the other aides shove the miserable apprentice backward into a wooden tub filled with water. Any attempt at resistance is futile.

What may appear to resemble a medieval punishment meted out to criminals is actually an initiation ritual, as Horst Pinsker, owner of the printing company of the same name in Mainburg in Lower Bavaria, explains: “You can’t be a proper printer unless you’ve been dunked first. It’s the ritual dunking that turns an apprentice into a qualified printer and makes him feel part of the great family of printers.” Pinsker knows the routine well – he went through it himself over

20 years ago. He also knows that it isn’t the most pleasant experience. “It was quite rough and very daunting for a non-swimmer.” Things were a bit gentler for the women in the group. “Not quite as bad as I’d imagined, but it was still pretty wet,” say two of the female initiates.

Century-old tradition. The final part of the ceremony to officially welcome qualified apprentices into the family of printers is presentation of the initiation certificate, which is signed by the initiation committee of master printers and journeymen attending the event. The initiation certificate safeguards journeymen from having to undergo the dunking ceremony again when changing employers. That, at least, is the idea, explains Pinsker, but it doesn’t always work.

“We had one colleague with a Franconian initiation certificate that we decided we couldn’t recognize in Lower Bavaria.” Bad luck for the new printer, who ended up in the water tub again. As Claus Maywald of the Gutenberg Museum in Mainz explains, the traditional dunking ceremony for printers dates back to the middle of the 19th century. The roots of this custom reach back to the Middle Ages, however. “In those days, young students had to undergo what were often quite rough ordeals designed to rid them of their ‘horns of ignorance’. This was intended to make clear to the budding academics that they were still imperfect, both in themselves and in the extent of their knowledge.” Similar customs were employed by bookbinders in Germany, where the young journeymen were first employed as a ‘cornut’, which liter-



Not recommended for people with water phobias – full buckets of water are thrown over the budding printers.

Dunking ceremony instructions

There are right ways and wrong ways to organize dunking ceremonies:

- First, identify a “willing” apprentice in the printing trade.
- Then assemble the members of the initiation committee – this consists of the initiation master, two to four aides – depending on the level of resistance expected from the apprentice – and someone to hold the sponge. It goes without saying that only people who have been through the ceremony themselves are allowed to perform it.
- Finally, a number of accessories are needed: these include a tub full of water that won’t break if knocked about vigorously, a chair, a bucket, and two large sponges.

The dunking procedure:

- First, the person with the wet sponge places it on the chair.
- The aides then drag the apprentice onto the chair.
- The sponge holder ensures that the sponge does not come off the chair while the apprentice thrashes about.
- At the initiation master’s word, the sponge holder squeezes a saturated sponge over the apprentice’s head and the aides follow this with a bucket of water.
- They then throw the apprentice into the tub of water. The apprentice’s head must be submerged in the water, or otherwise the ‘baptism’ is incomplete.
- The conclusion: the initiation master hands the newly baptized apprentice a certificate confirming that he is now a full-fledged book printer.



Example of an initiation certificate.

ally means ‘horn bearer’. Because initiation ceremonies in those days led to widespread abuse, the king of Prussia banned them at the start of the 19th century. The only element of the original ceremony that has survived to this day, although in simplified form, is the dunking ceremony. “The German word ‘gautschen’, by which the dunking process is known, actually comes a phase of the papermaking process called ‘couching’. The wet paper sheets were stacked between pieces of felt and the excess water removed using a press,” explains Maywald. The dunking ceremony symbolically cleanses the apprentices of the bad habits they have acquired during their apprenticeship. Their sins are washed away by the “baptism of water ad corpus posterium”, in other words the wet behind, and subsequent immersion in a tub of water. This is reinforced by the traditional saying that accompanies the dunking, which roughly translates as: “Place his corpus posterius on this wet sponge, till his behind is dripping and thoroughly soaked. Give his thirsty soul a thorough dunking. What better baptism could a child of Gutenberg aspire to?” Originally, it was only book printers who had to undergo this initiation. “But the technological advances made with-

in the trade gave rise to many new professions. Today, even designers of print and digital media belong to the fraternity”, says Pinsker.

Successful future. But how can cutting-edge technology and traditional customs exist side by side? Pinsker, whose company covers all stages of the printing process, doesn’t see any contradictions or sources of friction: “When it comes to equipment, we always use the very latest technology. But the initiation ceremony is also important; it’s a key element of our corporate culture.” Once every six years on average, Pinsker issues invitations to an initiation ceremony at Ratzenhofen Palace. The ceremony is popular with everyone, including the 20 or so candidates, the company’s 125 employees and their families, and invited guests. “Everybody has a great time. This opportunity to eat, drink and be merry helps reinforce their identification with the company and strengthen personal relationships.” This is something that Pinsker is fully committed to. “Long-term customer contacts are important to us. And so are quality and reliability. My staff take a very conscientious approach to their work and are always on the ball.” This atti-

tude is exactly what the initiation ceremony aims to achieve, with the apprentice being cleansed of “slipshod behavior and bad habits”, as it says on the initiation certificate. And with considerable success. Pinsker Druck und Medien has been on a growth course for a number of years. All qualified apprentices are hired by the company. And the same is likely to be true in six years’ time, when the words “Take hold, men!” ring out once again. ■

Facts & Figures

- Free DVDs of the dunking ceremony organized by the Pinsker printing company are available from horst@pinsker.de. Available only while stocks last.
- The Hessenpark outdoor museum arranges a dunking festival once a year. This year’s event will be held on August 28, 2005. The historic print shop in the Hessenpark is open on the first weekend of every month from March to October. Presentations are given by typesetters, printers, and bookbinders. Freilichtmuseum Hessenpark Laubweg 5, 61267 Neu-Anspach, Germany Phone: +49 6081/588-0 www.hessenpark.de

Tips & Tricks

“LAST-MINUTE COATING” WITH COLOR EDITOR

When do you create a coating form and how?

It isn’t unknown in the printing industry – to put it mildly – for customers to decide very late in the production process that they want to add coatings. This can confront the printer with two different problem situations:

- The areas to be coated haven’t been taken into account in the editable files that the printer receives, prepared using layout programs such as InDesign or QuarkXPress. In this case, a little “handiwork” can help, referring to texts and geometrical forms. With silhouetted images, it is also possible to create a coating form by manually tracing the photograph or converting a mask from Photoshop, for example, into an image that is then juxtaposed on the original photo and output as a special color. These procedures are extremely work- and time-intensive, however.
- The printer has no editable files to work with – only PostScript or PDF. In this case, even the best manual skills are useless.

However, a simple, fast and useful solution to this problem exists: Prinect Color Editor, which allows you to create a coating form for individual elements of pages or even the entire printing form. Color Editor is a plug-in for Adobe Acrobat.

Create the coating form as follows:

1. Generate a PDF From your data if you don’t already have one.
2. Open the PDF in Adobe Acrobat.
3. Start Prinect Color Editor.
4. Click the menu item “Varnish”.
5. Select “New” in the “Varnish” window to define a color. Enter the name of the coating and define how you want the coating to be depicted in Acrobat.
6. Select the elements to be coated (image, text, color vignette, etc.).
7. Apply the settings.



COLOR SETS IN IMAGE CONTROL AND AXIS CONTROL

When do you create new color sets and how?

Color reproduction on the press sheet is influenced by the properties of the inks and the color of the paper. To ensure that the various inks are applied consistently onto different papers, it is necessary to correct any deviations. This can be done by defining new target values and saving them as colorimetric Lab values and densities together with the paper white in a ‘color set’. The Lab values depict the inks in a color space, while the color density quantifies the reflective response of the ink.

The Prinect Image Control and Axis Control color measuring systems come supplied with the “Heidelberg” and “Standard” color sets. These sets are based on the inks and papers that Heidelberg uses when test-printing a press in the factory. They therefore already

contain target values for the required coloring and the Lab values of the paper, from which the target coloring was taken. Prepared configurations for each grade of paper (smooth, matte, natural) are also available and need to be taken into account in the printing process. A new color set has to be created for each ink and grade of paper used. Likewise, a new color set is required when target values change – for example, for different densities in printing. The remission spectrum (which exactly defines how a color looks) must also be calculated by measuring the target value of the ink actually used. However, because the paper’s coloring significantly impacts the remission spectrum of the ink, it is also important to know the color of the paper from which the target value was taken. This must therefore be measured and also saved in the color set.

Here is how it’s done:

1. Measure the new sheet with a color control bar.
2. Call up the Service menu.
3. Select the wrench symbol.
4. Select the menu item “Color” in the “Archives” window.
5. Go to “New Color Set” (the “Standard” color set is copied automatically).
6. Enter a name that is associated with the color or target values used.
7. Insert the Lab value for the paper white from the current press sheet into the new color set.

8. Now you can add the process and special colors to the color set from the current sheet (or a sample). If you wish to use gray-patch control, the corresponding gray patch – formed from 70% cyan, 60% magenta and 60% yellow – must be taken from the current sheet/sample.
9. Exit the menu. The new values are saved automatically.



PRINTOPEN 5.1 FOR COLORFUL RESULTS

Making the most of the CMYK process

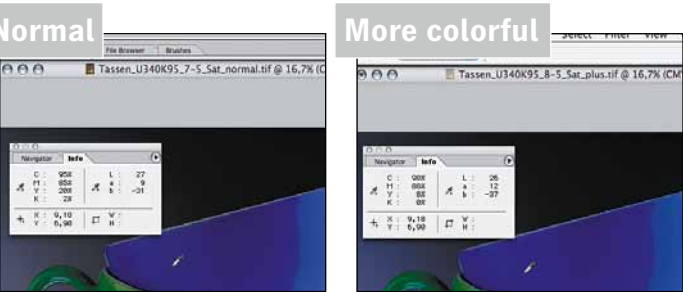
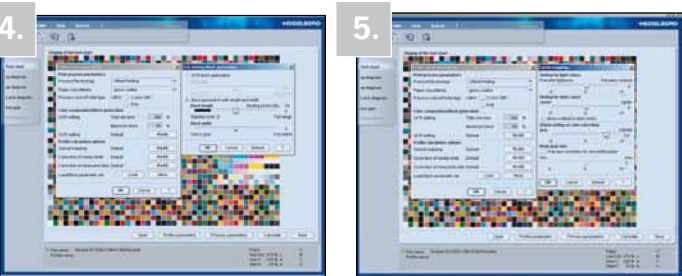
Many customers have very high expectations when it comes to the quality of the print products they order. Strong hues are particularly popular in the advertising industry. To let you make the most of what four-color offset printing has to offer and increase the chromatic levels of color motifs, PrintOpen 5.1 from the Prinect Profile Toolbox offers a wide range of functions. It doesn’t matter whether you strictly adhere to DIN/ISO 12647-2 or apply your own “in-house” standard. All you need is the measurement data from a test form (e.g., IT8/7.3, ECI2002, from either your own printing process or an association like the German Printing and Media Industries Federation (www.bvdm-online.de, information also available in English). PrintOpen 5.1 allows you to create ICC profiles that precisely meet your customer’s needs and yield optimum color separations.

To increase chromatic levels, proceed as follows:

1. Open suitable measurement data for your print process (e.g., IT8/7.3 or ECI2002) in “Measurement mode”.
2. If necessary, smooth the measurement data in “Measurement mode” and save the results separately.

3. Switch to “Create mode” and load the smoothed data.
4. Open the “Profile Generation Setup” window and select the settings for “Total dot area” and “Maximum black” (UCR settings) and the length and width of the K (GCR settings) that you require.
5. Open the “Gamut Mapping” window and increase the value for “Global setting of color saturation” (slide the bar to the right, for instance to +3).
6. Now calculate and save the profile.
7. Import the profile into your image processing software.

Here you can see a comparison of the results in a separation of an Lab image in Photoshop 7. One more tip: If you set the chromatic value for “Global setting of color saturation” to -5, you can create a profile that gives you separations in the form of four-color gray-scale images.



Dates & Tradeshows

■ Asian dates

China: ChinaPrint*

Approx. 1,000 printing press and print materials manufacturers from all over the world will exhibit their technologies and products at ChinaPrint.

Venue: Beijing, China

Date: May 11-15, 2005

Contact: Mr. Harrey Zhao, Ms. Min Na, Mr. Chen Qian

Phone: +86-10-8460-0312/0314/0316

Fax: +86-10-84 60 03 25

E-mail: chenqian@ciec-exhibition.com

Internet: www.chinaprint.com.cn

■ Australian dates



Australien: PacPrint*

World innovations for printing and graphic communication will be on show at PacPrint, attended by leading providers from the industry.

Venue: Melbourne, Australia

Date: May 24-28, 2005

Contact: Thurain Aye, Reed Exhibitions Australia

Phone: +2-9422-2472

Fax: +2-9422-2553

E-mail: thurain.aye@reedexhibitions.com.au

Internet: http://www.pacprint.com.au

■ European dates

Austria: Dataprint*

The only trade show for printing and digital production in the German-speaking world this year offers reliable information on investments and business opportunities.

Venue: Linz, Austria

Date: April 5-8, 2005

Contact: REED Messe Wien GmbH, Monika Schwella

Phone: +43-1727-2 05 37

Fax: +43-1727-2 04 34

E-mail: dataprint@reedexpo.at

Internet: www.dataprint.at

Czech Republic: EMBAX-Print*

23rd international trade show for the packaging, paper and printing industries.

Venue: Brno, Czech Republic

Date: May 17-20, 2005

Contact: Trade Fairs Brno, Petr Navrátil

Phone: +42-541 15 29 24

Fax: +42-541 153068

E-mail: embaxprint@bv.cz

Internet: www.embaxprint.cz

Finland: World Skills Competition 2005*

The 38th WorldSkills Competition takes place this year in Helsinki. The vocational competition for young people will also feature printing for the first time. Talented young printers from Belgium, Germany, Finland, the Netherlands, Norway, Sweden and Switzerland will compete in a demonstration competition for gold, silver and bronze prizes. The participants must print a poster or flyer on one of four Printmaster PM 52-4 presses supplied by Heidelberg and demonstrate special printing skills. The exact task will be announced shortly before the competition. The organizers expect around 800 young people from 39 countries to put their skills to the test in 45 different professions. “WorldSkills is more than a competition – it is an opportunity for young workers to develop,” says Finnish education minister Tuula Haatainen. Haatainen expects the four-day event to attract around 150,000 visitors.



Venue: Helsinki, Finland

Date: May 26-29, 2005

Contact: Skills Finland, Eija Alhojärvi

Phone: +35-8986 89 68 20

Fax: +35-89 86 89 68 18

E-mail: eija.alhojarvi@skillsfinland.com

Internet: www.wsc2005helsinki.com, www.worldskills.org

Germany: Interpack 2005

17th international show for packaging and paper conversion.

Venue: Düsseldorf, Germany

Date: April 21-27, 2005

Contact: Messe Düsseldorf,

Bernd Jablonowski

Phone: +49-211-4560-480

Fax: +49-211-4560-8 74 80

E-mail:

JablonowskiB@messe-duesseldorf.de

Internet: www.interpack.de

Germany: UV Days, IST METZ

The second UV Days event by IST METZ GmbH will focus on the latest trends and opportunities relating to UV technology.

Venue: Nürtingen, Germany

Date: June 6-10, 2005

Contact: UV Technology Center, Stefan Feil

Phone: +49-7022-60 02-0

Fax: +49-7022-60 02-76

E-mail: Stefan.Feil@ist-uv.com

Internet: www.ist-uv.com



Germany: Annual Press Conference

Heidelberger Druckmaschinen AG presents its 2004/2005 Balance Sheet and Annual Report and gives its forecast for the coming fiscal year.

Venue: Heidelberg, Germany

Date: June 7, 2005

Contact: Heidelberger Druckmaschinen AG, Thomas Fichtl

Phone: +49-6221-92 47 47

Fax: +49-6221-92 50 69

E-mail: thomas.fichtl@heidelberg.com

Internet: www.heidelberg.com

Poland: Poligrafia*

International exhibition for polygraphic machines, materials and services

Venue: Poznan, Poland

Date: April 10-22, 2005

Contact: Messe Poznan, Thomas Stenzel

Phone: +49-30-2017 00 20

E-mail: ts@e-tsm.com

Internet: www.messe-poznan.de

Turkey: Tüyap Print*

10th international trade show for the printing and paper industries.

Venue: Istanbul, Turkey

Date: May 16-22, 2005

Contact: Tüyap Fair

Phone: +90-(212)-8 86 68 43

Fax: +90-(212)-8 86 62 43

E-mail: artlink@tuyap.com.tr

Internet: www.tuyap.com.tr

United Kingdom: Northprint

The only trade show for the graphic arts industry in the UK this year, with the latest developments for prepress, press and postpress on display.

Venue: Harrogate, UK

Date: April 19-21, 2005

Contact: Nicky Mason, Managing Director

Phone: +44-020-7915-51 32

E-mail: newstec@iirx.co.uk

Internet: www.northprintexpo.co.uk

■ North American dates

USA: Vue Point Conference 2005

Experts from the graphic arts industry gather to share and broaden their knowledge of the industry in an open dialog.

Venue: Orlando, Florida, USA

Date: April 11-13, 2005

Contact: Graphic Arts Show Company,

Kelly Kilga

Phone: +1-703-264-7200

Fax: +1-703-620-9187

E-mail: info@gasc.org

Internet: www.vue-point.org

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* Events in which Heidelberg will participate

