PrintPromotion

NEWSLETTER

›› Training Information & News in Printing and Paper Converting Technology | No. 108 | June 2019

drupa – No. 1 for business success 2

New website: www.printpromotion.de 3

Print China 2019 with technology "Made in Germany" 3

Company News

Printers` Guide

drupa – No. 1 for business success

drupa 2020 will again provide crucial impulses for print, media, packaging production, and industrial applications. **The world's leading trade fair for printing technologies** offers outstanding networking opportunities and potential for excellent business dealings.

This is where innovations are brought into the market, new business models are developed, and new partnerships are formed.
drupa is an international magnet for visitor target groups from a wide variety of industries. In addition to the printing and packaging industry, there are also groups from vertical markets such as consumer goods, luxury goods, cosmetics, bank and safety technology, and many more. More than half of its visitors come to drupa with specific investment projects.
The 2018 figures published in the 6th drupa Global Trends Report show that the global print industry as a whole is in a stable condition, with some regions and markets doing much better than others and conditions varying between regions and between markets.
The packaging market thrives as does functional, but there are clear signs of increasing caution in the commercial market and publishing remains subdued, with the encouraging exception of the books market. Sheetfed offset remains the most common form of print technology, and the sheetfed offset volume continues to grow in packaging but there was a clear decline amongst commercial printers for the first time. Web-to-print volumes are climbing, but slowly.

drupa touchpoint Packaging: Taking packaging to the next level
Whether it is for food, beverages, healthcare, business or home, the motto is to transform packaging. Changing demographics, more pressure to better serve the environment and accelerations in technical innovation are all shaping a new future for packaging production. Touchpoint Packaging initiative's main goal is to display how innovative printing technologies contribute to the future of packaging. In this fast-changing world, drupa touchpoint Packaging will deliver an inspiring and amazing experience to all visitors. More than 20 projects will touch upon key issues such as customisation and personalisation, digitalisation, security and authentication.
The aim is to present concepts and the latest knowledge about new packaging production, finishing technologies and substrates – culminating in prototypes that meet the demands and needs of both future consumers as well as brand owners. In addition, the visitor experience will combine physical and non-physical packaging elements via augmented reality, virtual reality and digital workflows. Over the 11 days of drupa, visitors will be able to listen to keynotes, attend roundtables, engage with specialists and literally touch the newest and most innovative packaging solutions that enable brand owners, packaging designers and packaging converters to meet the requirements of the next decade.
→ **www.drupa.de**

Specialist Teacher Course in Germany

This year, the **PrintPromotion Specialist Teacher Course** will be held from 19 June to 17 July at the azp training center for print and media in Chemnitz in Germany.

The 15 attendants come from Egypt, Brazil, Colombia, Ghana, India, the Ivory Coast, Kenya, Malaysia, Nigeria, Serbia, Sri Lanka, Thailand, Uganda and the Ukraine. So, the specialist teachers will meet colleagues from all corners of the world and will have the chance not only to widen their specialist knowledge but also to expand their horizon as to the present situation in the printing industry world-wide.
The curriculum of this 4-week course with a focus on the transfer of know-how comprises theoretical and hands-on sessions in the areas of prepress, print and print processing as well as cost calculation. Furthermore, the participants will be able to update their knowledge about the latest trends and developments in visits to print machinery manufacturers and printing houses in Germany. The newly acquired expertise will then help them in their role as multipliers for print professionals back in their own countries.
Print is a future-oriented market promising growth in segments such as packaging printing, printing on textiles, plastics, ceramics, metals and wood material as well as on functional surfaces. Therefore, being up-to-date and sharing state-of-the-art knowledge with students and trainees for the printing industry is of utmost importance for the teaching staff of specialist training institutions all over the world.

The transfer of knowledge to and among specialist teachers from all around the world has top priority in the PrintPromotion Specialist Teacher Courses held at the azp in Chemnitz in Germany. With the help of practical examples, the teachers can explore the manifold facets of modern printing production.

Seminar for **specialist teachers**

The preparations for drupa 2020 in Düsseldorf are in full swing. The seminars for specialist teachers that are to be held outside Germany before this number one event for the printing and paper industry world-wide will therefore be planned in line with the itinerary for the drupa presentation tour so that not all places and dates are known at present. One, however, has already been arranged. A PrintPromotion Specialist Teacher Seminar will take place in Greece at the HELGRAMED – the Hellenic Association of Graphic Arts and Media Technology Engineers in Oropos/Attica (near Athens). The seminar will be held in calendar week 45. More information will be announced on the PrintPromotion website at
→ **printpromotion.de**

www.printpromotion.de

The website of PrintPromotion has been revised and redesigned. Its relaunch is scheduled for June. Besides topical information about the conferences and courses, the new website will now also enable to register for the PrintPromotion events. The online registration forms can be found at the respective projects on the website.

Print Media Conferences

At present **three conference tours** are planned in the run-up to drupa 2020.

In calendar week 37, print media conferences will take place in Mexiko City, Mexico on Sept 10th 2019, in Guajaquil, Ecuador on Sept 12th 2019, in Lima, Peru on Sept 13th 2019 and in Bogota, Colombia on Sept 16th 2019. A tour to Asia is scheduled for calendar week 50. It will go from Vietnam with stops in Ho Chi Minh City as well as Hanoi to Bangkok in Thailand and Kuala Lumpur in Malaysia. A third conference tour will have destinations in Africa, i.e., in Egypt, Algeria and Morocco. The speakers will probably go on tour in calendar week 7 next year. Details will be announced in a timely manner on the PrintPromotion website and in the next PrintPromotion Newsletter. Participation in these conferences will be free of charge for invited guests.

The Conferences are also used as a platform to liaise with other attendants. Seen here on the right is PrintPromotion Managing Director Dr. Markus Heering talking with a participant in Moscow.

Print China 2019 with technology "Made in Germany"

Modern printing and paper technology is meeting with unbroken interest in China: Over 200,000 trade visitors were registered at the Print China 2019 trade fair from 9 to 13 April in Guangdong with more than 1200 exhibitors presenting their solutions on 140,000 square metres of exhibition space on the five days of the fair. "This visitor response is a very positive signal," said Dr. Markus Heering, Managing Director of the German Printing and Paper Technology Association (VDMA) and PrintPromotion GmbH. China is a key market for German suppliers of printing and paper technology. In 2018 alone, exports to the industry's largest foreign market totalled 612 million euros. Accordingly, it is important for member companies of the VDMA trade association to present their innovative solutions on site. But at large trade fairs such as Print China, it is especially difficult for small and medium-sized companies to stand out, above all since numerous global players with elaborate, personnel-intensive exhibition stands attract a lot of attention. PrintPromotion GmbH regularly organises German Pavilions to ensure that participation in foreign trade fairs pays off without excessive use of resources. These professionally designed, spacious exhibition stands in good locations provide participating exhibitors with a level of attention under the "Made in Germany" label that would hardly be possible on their own. At Print China 2019, this concept was again successful and seen as absolutely recommendable for market entry. The participating companies drew a thoroughly positive balance of the joint trade fair appearance. To quote just two: "We had a successful fair. The stand was very well frequented by the public because the location was good and the design stood out from other stands," explained Kenny Lam, Marketing Coordinator of KURZ Hong Kong Ltd., adding that this not only made it possible to cultivate contacts with existing customers, but also led to many discussions with interested parties. Marcus Tralau, CEO of Dresden-based KAMA GmbH, also drew a positive conclusion stating that the company is very satisfied with the incoming orders and especially with the discussions at Print China 2019. KAMA used its trade fair presence to present KAMA's special solution for the production of small and medium-sized folding cartons to the Chinese trade public for the first time.

At the Print China 2019 from 9 to 13 April the "German Pavilion" concept under the motto "Made in Germany" was again successful and seen as absolutely recommendable for market entry.

Company news

Good deals in the Far East

Red is the decisive colour at Print China 2019, as sales transactions are marked and displayed in red at trade fairs in the "Middle Kingdom". Many red signs were glued at the KAMA booth with partner YouPrint Digital Technology with an order intake comprising products from the entire portfolio and also an extensive list of leads. Sales include the KAMA ProCut die cutting and embellishment machines, the ProFold 74 for folding and gluing and the complete solution for folding carton production – the company`s largest package with die cutter, inline stripper and the fully automatic folding carton gluer KAMA FF 52i. For the first time in Dongguan, the Dresden-based machine manufacturer presented the customised solution for the production of folding boxes in small and medium runs as well as personalised runs in digital printing.

Seven contracts have been concluded for the CPX rapid positioning system alone. This system for positioning clichés can be used not only for KAMA finishing solutions but also for other hot foil stamping machines. The software and ease of use of the CPX reduce set-up times by up to 90%.

According to CEO Marcus Tralau, China has now become an important market for Kama. The modular design of the machines with numerous retrofittable options, the unique solid construction and the associated permanently high precision are appreciated. Last but not least, this means a long service life even when used intensively. Including the Hong Kong special economic zone, Dresden-based KAMA had already installed the 50th unit in China at the end of 2018.

Smiling faces. For KAMA, things are running smoothly in China. At Print China 2019, the Dresden-based company concluded contracts for the entire product range.

Kama GmbH

Experience together – **Baumann Open House 2019**

After the move of the mother house Heinrich Baumann Grafisches Centrum GmbH & Co. KG to Solms last year, the Baumann Group presented itself for the first time together with Baumann Maschinenbau Solms GmbH & CO. KG in the new common headquarters. "EXPERIENCE TOGETHER" was the motto of the launch event, which – from now on – will take place regularly in Solms every two years under the name "Baumann Technology Days" together with partners with a focus on automation and process optimization for future technologies.

The product highlights of this year's event underlined this concept. Besides the Baumann Automatic Cutting System BASS, the visitors had the opportunity to discover further robotic solutions, networked working and – matching the fastest folding machine in its format class – also the world premiere of the MBO CoBo-Stack, which revolutionizes the stacking of folded signatures.

The high number of more than 400 guests showed that the Baumann Group's choice of topics was exactly what the attendants were interested in. The success of the event was confirmed not only in the series of intensive technical discussions during the open house, but also by the high number of incoming orders right after it.

Together with its strong technology partners, the Baumann Group demonstrated during the open house also the strengths as partner for the complete production process within the graphic industry – from the customer interface to the final printed product.

The exhibitor list of the Baumann Open House 2019 represented an impressive cross section of the main processes of the graphic industry comprising equipment for premedia, prepress, press and postpress.

In Solms, interested customers could, moreover, see the packing machines AGILIS and PICDIS which are designed and produced by Baumann Maschinenbau Solms under the brand name baumannpacking. With this division, the Solms-based company Baumann, which – by the way – celebrated its 40th anniversary with the Open House, has built up a further pillar.

Despite several third party events which took place at the same time, the "Baumann Technology Days" attracted the high number of more than 400 guests.

The innovative strength of the mechanical engineering company is the result of the company strategy which is based on growth and future sustainability. This is reflected, among other things, in the recently acquired 5-axis milling machine, the training concept and, above all, by the research and development department with a share of more than 20%.

Baumann Maschinenbau Solms GmbH & Co. KG

Partnership-based relationship pays off

The online print shop SAXOPRINT based in Dresden has recorded double-digit sales growth in recent years, and last year generated sales of over EUR 100 million in the area of commercial online printing as part of the CEWE Group. Its product range has undergone a significant change in this time. Standard commercial printed matter such as flyers, posters, catalogues, and brochures are still the main focus and account for 80 percent of its business, however packaging and finishing represent a large growth market.

The company uses special algorithms to bundle the orders received via the web shop into gang runs and distribute them to the respective machines. Every order is individual. Customers from all over Europe order from SAXOPRINT, whether private individuals, business customers, agencies, or resellers, who now account for a not insignificant share. International customers are looked after by a call centre in London staffed with native speakers.

High efficiency and speed are important here. Up to 5,000 orders are produced daily in three shifts. This is only possible using industrialized processes and the most modern equipment. With this in mind, the company has invested over EUR 70 million in new solutions in the past seven years.

The latest installation in the press room is a Heidelberg Speedmaster XL 162 eight-colour perfecting press with the newly developed LFS165 inline roll sheeter developed by BW Papersystems.

With exceptional high precision, the LFS165 sheeter is able to cut paper from 40 to 350 gsm, and film starting at 50 micron. After the cross cutting section, an innovative underlapping system is used to maintain the sheets in strict sequence for presentation to the press infeed. The machine offers great flexibility: By indexing part of the sheet delivery system to one side, the press can revert to feeding from sheets on a pallet. It can be integrated into the design and control system of the further production chain. The maximum speed is 18,000 sheets per hour.

The experts of BW Papersystems Stuttgart spent two years working on the development of the LFS165. The Speedmaster XL 162 with LFS165 has been in use since January of this year. The cutting performance of the BW Papersystems LFS165 sheeter has a tolerance of less than 0.3 millimeters, superior to that of industrially produced paper stacks. This means that the cut sheets in the delivery can go straight to postpress. The previous step of vibrating against straight edges is no longer necessary.

Saxoprint Managing Director Klaus Sauer is very impressed by the results achieved with the Heidelberg Speedmaster XL 162 and the inline roll sheeter LFS165.

BW Papersystems Hamburg GmbH

India's middle class – the driver for a folio-size success story

India sees a rapidly growing economy. Rising incomes, higher awareness for health and personal care as well as changing lifestyles boost the demand for more fast-moving consumer goods (FMCG) and premium products. Intended for the Indian market or for export, all of these products require packaging, ideally folding carton, resulting in a rising demand for (high-quality) paper and board processed from the pallet on sheet-fed presses. Printers require sheets being dimensionally very accurate, flat and clean cut. These quality features as well as precise stacking make offset printing machines run faster, have fewer wash ups on the printing blankets and greatly improve overall efficiency, output and ultimately print quality of the finished products.

Using flexible folio-size sheeters, paper mills and merchants can offer sheeted material in different formats and grades. Alternatively, in-house sheeting at larger printing houses allows for higher flexibility, shorter time-to-market and reduced stock material. Previous dead knife sheeters no longer achieve the quality and accuracy targets required by paper and paperboard manufacturers now. Therefore, many of India's largest manufacturers of paper, paperboards and specialty papers as well as the mill's local customers – printing houses all over India – rely on the excellent sheet cutting quality that can be achieved using the eCon sheeter from BW Papersystems with its on-machine cross cut knife sharpening. Its innovative decurling system has automatic power adjustment, low power consumption, reduced maintenance requirements and, what is more, is simple to operate.

The eCon sheeter from BW Papersystems with its on-machine cross cut knife sharpening offers high sheet cutting quality.

BW Papersystems Hamburg GmbH

That's how fast **modern flexo printing** can be

On 27 and 28 March, machine manufacturer Windmöller & Hölscher (W&H) hosted visitors to the open house "Experience the Future of Flexo". More than 500 visitors from around the globe attended demonstrations showing how fast and optimized printing processes can be today: Just 3 hours after a group photo was taken, the image was produced on the new NOVOFLEX II at speeds of 600m/min. Job changes every 5 minutes demonstrated the efficiency of the W&H machines and intelligent automation systems for short runs.

With the new NOVOFLEX II, even the most difficult images and jobs can be printed in top quality at high speeds. Fast job changes and minimized maintenance and cleaning increase the efficiency of the system.

The highlight of the Open House was the premiere of the NOVOFLEX II high-performance flexographic printing press, which can print the most challenging jobs at maximum speeds. W&H demonstrated the performance of the new system by switching between two images at a speed of 600 m/min. Both jobs were high line count graphics with particularly hard leading edges of plates. The first image was the group picture taken in the morning.
The conversion from image to finished print in 3 hours was made possible by an optimized overall process. Partner KODAK FLEXCEL used the FLEXCEL NX Ultra solution to produce ready-to-print Ultra plates in less than one hour. The NOVOFLEX II with its clearly structured printing unit as well as automatic storage and sleeve ejection system enables a sleeve change in just a few minutes. The EASY automation modules ensure fast setting as well as impression setting and register setting in less than 90 seconds.
At the Open House, W&H also showed the MIRAFLEX II, of which more than 650 machines are in use worldwide, in two versions: The proven dual-port and a new compact single-port that requires less floor space. Thanks to the face-to-face winder configuration on the single-port, there is a central loading and unloading area for the winder, which shortens web and operator distances. In addition to a pure 4C process job, the single-port showed further developments in the fully-integrated VISION print monitoring system designed in-house by W&H. The audience was particularly interested in the unique Head-Up Display and the intelligent print defect classification.
W&H also used the demonstration of the two MIRAFLEX II versions for a direct comparison of CMYK colour separation with multicolour separation. While the single port printed in 4C, the dual port worked with a fixed 7C colour palette. This direct system comparison showed the advantages and possibilities offered by the consistent use of an extended colour gamut. In this context, the technical highlights in the areas of inking, inking unit design and drive technology of the W&H presses were clearly demonstrated. New digital technologies will facilitate customer support in the future. The Information and Diagnostics Center (IDC) demonstrated the use of digital data glasses during live troubleshooting: A customer who needs technical support puts on the headset with integrated camera and connects to an expert from the IDC. The expert sees everything the customer sees in real time and can help him quickly and easily. In the medium term, the digital services will be used in both service support and training.

WINDMÖLLER & HÖLSCHER KG

Blown film production boost with new die head and automation modules

The Tunisian film manufacturer CNP – Comptoir National du Plastique has modernized its blown film line (2,400 mm) from 2007 with a new Maxicone C three-layer die head (size: 315/500) by W&H. In addition, CNP retrofitted the existing machine with the automation modules Profile Booster and Easy Change. Profile Booster is accelerating the gauge control for faster job changes and start-ups, Easy Change can be seen as an "Auto Pilot" for blown film lines. Easy Change is adjusting all format relevant machine parameters fully automatically, including the cooling air. This results in fast format changes and eliminates operation mistakes.
Job changes now only take 3 minutes due to the higher level of automation. Waste could be reduced by four/fifths, the output could be increased by more than 20 per cent.
The entire retrofit implementation on site, with partner Windmöller & Hölscher, took only about a week - from initial dismantling of the old die head to the start of production with the new die head and software. The VAREX is CNP's main blown film line. In 2007, CNP invested in a VAREX 3-layer blown film line, mainly to produce agricultural and industrial films. Since then, CNP and W&H have been in regular contact on how to maintain production performance at the highest level. CNP, founded in 1958 and the oldest Tunisian plastics processing company, is a market leader in Tunisia and neighbouring countries with approximately 170 employees and a production of 10,000 tons per year.

The CNP team was all smiles after the retrofit. W&H carried out the installation without delay to keep downtime to a minimum and the implementation was fast and high-quality.

WINDMÖLLER & HÖLSCHER KG

UV Days 2019 with over 1300 participants from 46 countries

At the UV Days, which took place from 13 to 16 May in Nürtingen, organizer IST Metz welcomed over 1300 guests and 55 exhibitors from a total of 46 countries. Over 30 impulse and short presentations, 16 live print demonstrations on the company's own sheetfed offset press, 8 live demonstrations on the narrow web press and three different print jobs – these were the ninth UV Days of IST Metz, world market leader in UV and LED curing systems.

Highlight among the print jobs was the PadBook – a highly refined and sustainably produced and usable multifunctional packaging. The fold-out folder serves as a mobile and compact office and contains holders for a writing pad, business cards, pens and storage space for tablet accessories such as charging cables and plugs. The magnetic closure of the folder allows the entire office equipment to be securely stowed and transported. In addition to that, the PadBook can also be folded to create a tablet holder. During the in-house exhibition, visitors could traditionally have the print gimmick personalized by the Ludwigsburg type artist Sigrid Artmann with UV varnish or by means of modern laser engraving by exhibitor Polar Mohr.

With 13 industrial partners, industrial applications were represented more strongly than ever before at the UV Days. Even outside the printing industry, the application possibilities for optical systems are almost limitless. That's why IST offers tailor-made systems and solutions as well as professional support and laboratory services with UV, LED and Excimer systems for industrial applications. IST Metz systems are used for processing materials such as glass, plastics, wood and wood-based materials. At the in-house exhibition, IST Metz presented its new Excimer laboratory system for the first time in daily live demonstrations.

According to IST Metz, the UV Days were more well-attended and more diversified than ever before in terms of application technology with more than 1300 visitors and 55 exhibitors.

A very popular gimmick distributed as an example of a print job – the PadBook

IST METZ GmbH

IST Metz and Heidelberg to intensify LED curing cooperation

IST Metz and Heidelberg are further expanding their cooperation in the sheetfed offset printing sector. UV unit manufacturer IST Metz will cover the LED retrofit business for various Heidelberg Speedmaster series and manage the handling and installation of the systems directly. IST Metz will also supply LED curing systems for various new machines in the Speedmaster series for small and medium-size formats. Retrofitting these printing presses with the latest LED curing technology from IST Metz will accelerate the production process. The LEDcure high-performance LED system developed by IST offers outstanding curing performance and its flexibility makes it a perfect alternative for retrofitting Speedmaster machines (built in 2004 and onwards).

IST Metz also offers its customers the opportunity to produce orders on its own Speedmaster CD102 in Nürtingen before making an investment.

Heidelberg and IST Metz have been working together successfully in the UV printing sector for more than 20 years. This has resulted in impressive quality, quick curing processes and therefore printed sheets that can be processed directly without any loss of time. The new LEDcure system from the UV unit manufacturer is ideal for printing companies that want to take advantage of LED printing in order to be able to react more flexibly to changing market requirements such as uncoated papers, gloss effects and extremely short turnaround times. LEDcure systems already form the backbone of various national and international Heidelberg customers' successful business models, i.e. printing companies that rely on the latest and most innovative technology to provide their customers with the best at all times.

When it comes to the interaction between machine, LED dryer and consumables, optimum dryer integration determines the stability and productivity of the printing process. The installation and commissioning of curing systems in existing printing presses can be complex and have far-reaching repercussions. As the world market leader for UV curing systems based on ultraviolet light, infrared and warm air, and with more than 40 years of expertise in UV unit construction, IST offers comprehensive consulting services and safe, professional retrofits of LED curing systems. The communication between the machine and the curing system and the interaction between the interfaces must function perfectly when retrofitting – this is guaranteed with IST Metz systems.

And after making a successful investment in a UV or LED system, the UV technology specialist ensures a smooth and straightforward transition for the customer. Services range from seminars and technical training at the customer's site to comprehensive aftersales services including fast preventative services on request.

IST METZ GmbH

Heidelberg expands **cloud-based applications**

As part of its digital transformation, Heidelberg is systematically expanding its digital business models. The company has now acquired software start-up Crispy Mountain which offers Keyline, a cloud-based management platform for print businesses. The aim is to work with Crispy Mountain to expand the Heidelberg "HEI.OS" platform as a new industry platform for the printing industry. Among other things, printing companies will be able to obtain a large number of applications from an App Store. By connecting the existing Heidelberg software solutions around Prinect, the Heidelberg ID and the Heidelberg Assistant, the number of customers is set to grow rapidly.

The platform is intended to give print shops easier access to comprehensive services at the lowest possible administrative burden. Third-party suppliers will be able to create tailor-made offers for printing companies via the platform.

Heidelberger Druckmaschinen AG

World premiere at Print China – cloud-based web-to-pack platform

Chinese packaging manufacturer Xianjunlong Colour Printing and Heidelberg are leading the way by creating a digital ecosystem for the Chinese print media industry with a web-to-pack platform in China.

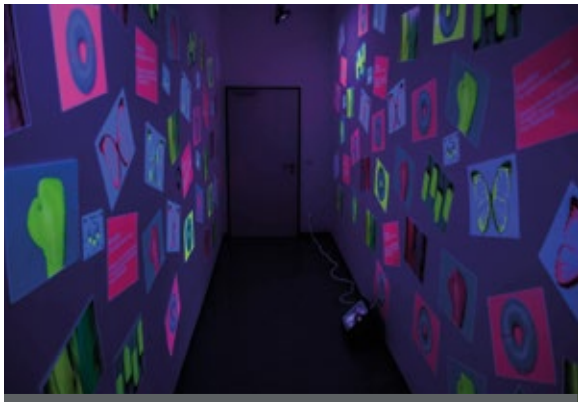
At Print China, Heidelberg, together with one of China's leading packaging manufacturers, Xianjunlong Colour Printing Co. Ltd, based in Shenzhen, launched boxuni, the world's first web-to-pack platform and digital production solution for designing and ordering customized folding cartons. The platform connects packaging designers, print buyers and producers with unparalleled efficiencies and leverages unrivaled software and technical capability from Heidelberg with Xianjunlong's strong footprint in the Chinese packaging industry. As the first boxuni production partner, Xianjunlong has implemented a fully integrated web-to-pack production line – from cloud-based online platform to printing on a Heidelberg Primefire 106 and postpress operations.

Heidelberg contributes its software know-how surrounding Prinect and its extensive experience in the printing of high-quality folding cartons. In this way, the company brings the interests of packaging designers, end users and packaging printers together on one platform. Designers currently have online access to around 12,000 folding carton designs, with more being added all the time. Packaging buyers can order packaging designs online – customized if necessary and also in the shortest of runs – which Xianjunlong then produces fully automatically and ships. A Primefire 106 from Heidelberg – China's first industrial digital printing system in B1 format – starts by printing the packaging that has been designed and ordered online. Postpress operations are carried out on a digital coating/foil stamping system and a die-cutting machine from Heidelberg partner Masterwork Group Co., Ltd. Xianjunlong thus offers a complete production chain for digital packaging printing.

Heidelberg is also leading the way when it comes to creating a digital ecosystem for the packaging market in China's print media industry. The next step is to give print shops the opportunity to link their products and services to this platform. For the first time, it will then be possible to use a cloud-based platform to produce folding cartons in a standardized, highly automated process with wide coverage in China.

Heidelberger Druckmaschinen AG

First Heidelberg **Digital Print Forum**



The Digital Print Forum offered concrete solutions and an opportunity for intensive discussion with the experts. Above all the room with black light and print samples produced on the Versafire inspired the imagination of the attendees.

The premiere of the Heidelberg Digital Print Forum on 21 March 2019 in the Print Media Center Commercial in Wiesloch-Walldorf was very well received by the more than 170 attendees invited by Heidelberg to come together to discuss the digitization of the industry and the importance of print. The wide range of presentations and market stands struck a chord with the visitors, who were happy with the varied suggestions and solutions and used the event to network.

Ease of operation, efficiency, and benefits are important considerations for the customer. That is why Heidelberg offers its customers software via subscription, and thus a scalable workflow. The customers choose only those modules that they actually need from an overall package. This is then all they pay for. Digitization shifts the focus to the individual, and print is a trendsetter here offering "customization", which means tailored, personal offerings that satisfy the individual needs of the customer.

The attendees got to see practical solutions and have discussions with the experts at the various market stands hosted by Heidelberg's partners, including Antalis, which showcased the use of functional paper. The Heidelberg Versafire EV and EP as well as the Smartfire demonstrated the variety of applications currently offered by innovative digital printing systems. In its eighth years of cooperation with Ricoh, Heidelberg has sold 1,500 Versafire systems worldwide. The specialist presentations in the afternoon provided information on a range of topics such as the digital printing quality mark and the strengths of ink jet and toner in digital printing.

Heidelberger Druckmaschinen AG

New folder gluer for the packaging market

In the middle of March, Heidelberg and MK Masterwork (MK) presented the new Diana Go folder gluer for the growing packaging market at an open house event in MK's European factory in Nové Město, Slovakia. Among the European packaging printers taking part were representatives from the companies that have already signed the first contracts for three serial production machines.
The Diana Go was developed on the basis of Heidelberg's market requirements by the MK development team in Neuss, Germany, and offers both commercial and packaging printers a cost-effective, flexible, and productive entry-level machine with a comparatively small footprint. It can run a wide range of carton styles such as straightline and lockbottom as well as optionally special styles such as envelopes or CD covers. The Diana Go is able to hit a top speed of 250 m/min in a machine just over 9 meters long.
The optionally integrated glue, inspection and ejector systems ensure high production quality. Designed for customers needing higher productivity and the ability to offer an expanded portfolio of products to their clients, the Diana Go is attractively priced to ensure a high return on investment in a very competitive market. As a result of technology transfer, the Diana Go has many design features present in the high-performance folder gluers of the Diana series to ensure reliable performance and peace of mind.
Coming less than two years after the introduction of the successful Diana Easy, the new Diana Go completes the portfolio of folder gluer models developed and produced by MK and sold via Heidelberg. Service is also provided via Heidelberg.

Visitors of the open house event in Nové Město were impressed by the high flexibility and productivity of the Diana Go.

The portfolio now includes the Diana Go as a compact entry-level solution, the Diana Easy, a popular general purpose machine with more than 30 machines now sold in 18 months, the Diana Smart, a 450 meter/min workhorse as well as the long established peak performance Diana X.

Heidelberger Druckmaschinen AG

New foil metallization solutions for HP Indigo digital printing

KURZ has developed new DM-LINER® foil overprinting metallization finishing solutions for HP Indigo digital press labels and commercial printing. The KURZ DM-JETLINER®, a digital pre-print foil unit integrated with the HP Indigo 6900 Digital Press and additional narrow-web models, simplifies the production of high-value labels with metallic effects in one pass, on a wide range of substrates, all at full press speed.
For commercial printing, a new version of the DM-LUXLINER® can be used off-line for HP Indigo B2 sheet-fed presses including the HP Indigo 12000 HD, HP Indigo 12000 and HP Indigo 10000 Digital Press.
The DM-JETLINER® is suitable for self-adhesive labels made from a wide variety of plastics and coated papers, and processes roll widths of 150 to 350 millimetres. The key feature of DM-LINER® finishing is its flat, colour printing equivalent application of the metallization, which makes problem-free multi-coloured overprinting possible. Thanks to the non-bulkiness of the coating, DM-LINER® finishing is also predestined for use in web-fed printing. Rolls in any required thickness can be finished.
The KURZ solution also offers diffractive designs and continuous holograms. These serve not only as decorative eye-catchers, but also provide a barrier to counterfeiting. When up-stream integrated into HP Indigo narrow web printing machines, the DM-JETLINER® is a perfect solution for meeting the increasing demand in the labels sector for personalization and serialization, short runs and versioning, right through to individualized designs.
The first HP Indigo 6900 Digital Press with an integrated pre-press DM-JETLINER® has begun beta customer testing. Further installations at beta test customers are planned for 2019.

A label printed with the DM-Jetliner® and overprinted with the HP Indigo 6900 digital press

Another novelty: Sheets finished with the standalone DM-LUXLINER® from Kurz can now be foil overprinted with high registration accuracy of ± 100 micrometres using HP Indigo B2 sheetfed presses thanks to an HP Indigo software-controlled registration adjustment. Sheets can be overprinted in a multitude of ways, including pre-print and post-printing.

LEONHARD KURZ Stiftung & Co. KG

Koenig & Bauer road show and seminar in Kuala Lumpur

Following a very successful year in 2018, with several installations of sheetfed offset and flexo presses in Malaysia, Koenig & Bauer (SEA) organised a special road show and seminar for the region's users and prospective customers in March this year. The objective of the event held in Kuala Lumpur was to inform the market on the latest trends and technical solutions which could help printers in the region to become more competitive and profitable in their business. In addition, the audience was brought up to date on current sheetfed, digital and flexo printing technologies. Beyond the core printing process, the participants were also provided with comprehensive information on the group's portfolio of flatbed and rotary die-cutters, as well as the latest range of folder-gluers. Since the beginning of the year, after all, Koenig & Bauer has been able to offer customers a full spectrum of European-manufactured equipment for folding carton production. A presentation given by Sascha Fischer, head of product management at Koenig & Bauer Sheetfed, met with especially great interest. He spoke about the technical highlights, cutting-edge automation features and tailored configurations of Rapida sheetfed offset presses. Perfecta product manager Clemens Berndt introduced his company's latest cutting technologies and explained how the current range of high-speed cutters can contribute to automation and optimisation of the process chain. Important topics in both presentations were the possibilities to implement data-driven services and business models, along with examples of successful installations in Southeast Asia. All the presentations were accompanied by lively and constructive discussions. At the same time, there were ample opportunities for networking to gain an even better understanding of the users' needs, expectations and business models.

Koenig & Bauer AG

For general manager Billy Yap, the seminar was an ideal occasion to introduce the local service team of Koenig & Bauer (SEA) to the audience. At the same time, he provided information on the individually configured service packages, proactive and predictive services, remote support, performance reports and consulting services offered by Koenig & Bauer.

Open house for new Evo XD in South Africa

An Evo XD from Koenig & Bauer Flexotecnica has been taken into production to complete a successful installation near Johannesburg in South Africa. Dynamic Plastic Packaging celebrated the official inauguration of the press with a grand open house at the company. This Evo XD was the first press of its type to be assembled at the headquarters factory in Würzburg, increasing the company`s share of the world market in flexible packaging printing to 9 per cent, and the volume of incoming orders has never been greater.

Dynamic Plastic Packaging was founded 11 years ago. With a workforce of almost 100, the company specialises in the printing of flexible packaging for the food sector. Thanks to a very broad portfolio of materials and packaging options, it can react quickly to special customer wishes.

The CI flexo press of the successful Evo XD series is suitable for production with water-based inks on a diversity of substrates such as films, very thin and sensitive "breathable" LDPE and laminated materials. It offers maximum flexibility for the most varied packaging applications and incorporates very energy-efficient dryer systems. The Evo XD uses modules of the current X series and was designed to meet demands for fast job changes, low make-ready waste and high productivity even with short runs. The automatic impression system AIF, the highly efficient washing system "Speedy Clean" and the integrated print error detection system provide for continuous quality control and enable production to commence without delay.

Koenig & Bauer AG

Satisfied faces at the open house in South Africa (left to right): Moreno Melegatti, Printing Manager Koenig & Bauer Flexotecnica; Stefan Paiano, Sales Manager Koenig & Bauer Flexotecnica; Roy Mahabier, Technical Manager Dynamic Plastic Packaging; Hannes Kritzinger, Russell Muller and Jacques Human of Kamboo Marketing Agency

7th Rapida for major Indian packaging printer

In January 2019, TCPL Packaging threw the switch on a new Rapida 106 at its plant in Goa in Western India. The seven-colour press with coater and extended delivery is already the seventh Rapida 106 sheetfed offset press from Koenig & Bauer to be installed at the company's various production locations since 2011. Like all the other Rapidas operated by the packaging specialist, it is configured to enable both conventional and UV printing. In Goa alone, 280 of the company's 1,250 employees print mainly food and pharmaceuticals packaging at a plant with production floor space totalling 28,000 square metres. With this latest Rapida 106, Koenig & Bauer press technology is now in use at all four TCPL locations. Apart from Goa, TCPL also has plants in Silvassa, Haridwar and Guwahti. Three more Rapida 106 presses are to be installed at TCPL this year. The first arrived at the Haridwar plant in May, while the second is set for installation in Goa in the summer. The installation of the third

press in Silvassa is scheduled for the end of the year. One of the three is also the longest Rapida in India to date, with a total of 12 printing and finishing units. The configuration comprises seven colours followed by a coater, two dryer towers, a further printing unit and coater, and an extended delivery. Once all these presses are in place, TCPL will possess ten high-end Rapida presses with a total of 85 printing units.

Koenig & Bauer AG

The installation team from Indo Polygraph Machinery together with the team from TCPL Packaging

Tailored gluing in web offset

The Combijet 9NET high-tech system

As a competent partner of the graphic industry, Planatol System is committed to actively providing the latest technologies and customized solutions for inline bonding for the quality-assured production of print media and introducing them worldwide. These include high-performance aggregates within the adhesive technology for inline production in rotary printing presses. The optimization of existing processes in the area of further processing in rotary printers is the aim of Planatol System. The company not only masters rotary longitudinal gluing but also cross-web gluing in high-speed rotary printing presses. In conjunction with the adhesives that are matched to these processes and systems at the holding company Planatol, Planatol System offers each customer individual adhesive solutions. For longitudinal gluing, the fold gluing, which processes all paper grades driven on the rotary printing presses, can be offered for every single type of commercial printing and every page size.

Especially in the field of brochure printing, folded products are professionally glued inline – thus they experience a high, easy-to-use value. The system generation COMBIJET 9NET from Planatol offers state-of-the-art, modular control technology and enables the control of up to 80 applicator heads for gluing and fold-softening. The modular design allows tailor-made and almost unlimited system configurations. The applicator heads are selected via a comfortable touch interface, which is also available wirelessly via WLAN connection. The COMBIJET 9NET fold-gluing and fold-moistening system works intermittently at web speeds of up to 20 m/sec. There is no other type of application that is able to apply the adhesive intermittently at such a level of high speed.
Planatol System also offers solutions for the rotary cross-web gluing of paper ribbons, which makes it possible to glue products which have been printed on the rotary printing press in tabloid format in the fold.
Depending on the configuration of the folder and the number of pages of the printed product, several cross-gluing units may be combined. The synchronous control with three-phase servo drives, the virtual axis of the printing machine and the electrical system control ensure that all glue tracks in the fold are superimposed even when several cross-glue units are used.
As standard, all Planatol systems are also equipped with a remote diagnostics system. Thereby Planatol System offers its customers online start-up help worldwide, online user instructions, online error detection, online fault diagnosis and the option of online software updates.

Planatol System GmbH

Top quality **laser cutting**

High-quality products produced with the Digicut laser cutting system

POLAR's Digicut laser cutters are characterized by their economical finishing of small-, medium- and large-volume print runs. Polar's Digicut laser cutter provides a wide range of options for sophisticated and complex processing and finishing. It goes far beyond conventional die-cutters with its cutting, kiss-cutting, perforating, engraving and grooving and different processing steps can be combined into a single operation without any tool changes or extra costs.

At the IST Metz UV Days 2019, POLAR-Mohr presented two laser cutters from the Digicut family. Digicut ECO L provides a wide range of options for the creative processing of single sheets or several products simultaneously. It is also possible to process different materials: Paper, wood, acrylic, stone, textiles, plastics, mirrors and many more. The compact laser can even handle high-class or 3D products. The Digicut ECO L can be put into operation in almost any room thanks to its internal filtering system and its safety features. Its simple operation and versatility make it a complete all-rounder. Laser processing using Digicut Pro is always "on-the-fly". This means that the sheets are transported through the laser's working area on a continuously-running conveyor belt with no restrictrion as to the length of the material being used. The innovative conveyor belt also stops residue from settling on the material. The laser cell forms the core of Digicut Pro. A powerful CO_2 laser based on galvo technology (mirror system) is used here and it enables a much higher processing speed to be used which makes the finishing of larger runs much more economical. The vacuum ensures that the laser head does not become contaminated. The material supply and delivery system is modular and it can be customized whenever necessary. The material is normally fed in via a conveyor belt, but the system can also be fitted with an optional feeder and delivery system. It is also possible to use an optional pick & place material delivery system. The laser cutter for large-volume runs was integrated in the printing room during UV Days and it lasered bookmarks onto the printed sheets previously produced by IST for the trade fair visitors.

POLAR MOHR Maschinenvertriebsgesellschaft GmbH & Co. KG

Sheet-fed rotogravure for top quality packaging production

Brilliant effects on packages attract the customers` attention in the shelves.

Moog has specialized in manufacturing sheetfed rotogravure presses for decorative and functional printing where highest print quality is needed. Sheet-fed rotogravure is suited for short-runs, for top-quality printing and fully recyclable packaging production.
Rotogravure printing presses are the key technology for refinements with gold, bronze, silver, fluorescent inks, scent varnish, high gloss UV lacquers, tactile soft touch, tactile raised effects or pearl gloss.
Sheet-fed rotogravure printing of silver or gold has a higher brilliance than the gold coating applied by indirect printing processes, and, what is more, is much more cost-favourable. The available high gloss metallic pigments are equivalent to metallized substrates, but easily recyclable with standard processes when printed by means of rotogravure technology.
Easily available white board is printed partly; the white unprinted areas are used as the background for CMYK or non-metallic areas instead of printing opacity white.
With a single printing station, customers can offer a wide variety of value added functions in printing and debossing without any modification of the basic machine.
Today's essential criterion is the totally odour-free and migration-proof package due to the fact that some packed products are hygroscopic.
Since the printed sheet is dried immediately in the press, the surface is also resistant to any damage.
Sheet-fed rotogravure technology is increasingly applied in the product refinement area and where new functionality shall be added to the sales packs in order to ensure an optimum position in the market.
Design and print combinations with other printing processes are easily possible, opening the door for all kinds of product enhancement.
For all that, Moog is offering sheet-fed rotogravure stations with up to 8 units with press sizes ranging from 750 x 1060 mm (l/w) to 1050 x 1450 mm (l/w) and 750 x 570 mm (digital).

H.C. Moog GmbH

Luxury packaging consulting and production systems

Via the website luxury-packaging.eu, Kolbus is now offering extensive packaging consulting services for design agencies/designers, developers and brand owners. They are invited to send the Kolbus team their ideas and designs which will then be checked whether they are good to go on a Kolbus BOXline system.
The Kolbus design team offers to produce 1 – 3 original size, blank sample packages in 1.5 to 2 mm grey cardboard to demonstrate the functionality. The experts in the Kolbus design team offer ideas and advice as to the choice of papers and substrates as well as on finishing, printing, RFID, brand protection and personalization/ customization for the packaging. Furthermore, the team offers support as the production process gets up and running, and acts as a platform for contacts with potential producers for the packaging.
For packaging manufacturers who want to open up a new business area using Kolbus BOXline machines for the production of luxury packaging, the luxury packaging team offers advice and support in the designing of the product portfolio and workflow planning, including exclusive factory visits to selected customers for prospective users so that the latter can see for themselves how effectively packaging can be produced on KOLBUS BOXline machines.

Wherever luxury packaging is needed – the Kolbus teams offer advice and support.

Kolbus GmbH & Co. KG

Management Change

Kai Büntemeyer, who managed the family owned company for many years, left the management of KOLBUS GmbH & Co. KG on 31 January 2019.
The successor of Kai Büntemeyer is Wilfried Kröger. Mr. Kröger has worked for KOLBUS since 1986. He has more than 25 years of management experience in sales and manufacturing at the special machine construction company in Rahden.

Kolbus GmbH & Co. KG

Estonian printer moves in new dimensions

With the help of its new Diamant MC 60, sales have jumped at Print Best, located in the small Estonian town of Viljandi. Thanks to the new Muller Martini hardcover system, productivity during the machine's first year of operations more than doubled. The comprehensive bookline with a Collibri backgluing machine, RPM roller pressing machine, Solit three-knife trimmer, ribbon inserting machine and BLSD 650 book stacker replaced a previous model that had absolutely no spare capacity and was a bit long in the tooth. With the company's first ever investment in a Muller Martini solution, Print Best, which employs 110 people and generates around 70 per cent of its revenues from book production, is leaving all of its options for future growth open.
Thanks to much shorter make-ready times, the new bookline really displays its strengths in the lower print run segment. But Print Best can print even long runs much more efficiently now, as the cycle of the Diamant MC 60 is two-thirds faster and it almost always runs at maximum speed.
Another strong argument in favour of Muller Martini was the flexibility the hardcover line offered. The print runs of books printed using offset printing technology vary significantly, ranging from 200 to 160,000 copies per job, with most orders in the range of 2,000 to 5,000 copies. With its investment, the company, which was founded in 1997, further strengthened its position as a reliable partner to publishing companies that sell what are often high-quality four-color books on topics such as art, cooking and travel.

Müller Martini AG

Thanks to much shorter make-ready times, the new bookline really displays its strengths in the lower print run segment, but Print Best can print even long runs much more efficiently now.

A visitor magnet at Expográfica in Mexico City – **the Vareo Perfect Binder**

The Vareo perfect binder drew large numbers of visitors to the Muller Martini booth at Expográfica in Mexico City.

The Expográfica in Mexico City was the first occasion that the Vareo was showcased live at a Mexican trade fair. It is designed for digital and offset printing and each of its three clamps is equipped with its own servo motor and driven individually. Accordingly, the Vareo met with great interest among the over 400 visitors to the booth from Mexico as well as the neighbouring countries of Costa Rica, Guatemala, Honduras, Colombia, Panama, El Salvador and Ecuador.
Muller Martini's live demos showed that the Vareo – an all-rounder which boasts an excellent price-performance ratio – comes into its own not only in digital printing for ultra-short runs right down to one copy per job, but also for medium runs, regardless of whether the brochures are produced using offset or digital printing. Hector Castro, Muller Martini Managing Director for the Latin America region, had two reasons to celebrate – as well as being delighted by how well-attended the booth was, he also had the opportunity to toast Muller Martini Mexico's 20th birthday at the trade fair together with customers and staff.

Müller Martini AG

Cairo-based publishing house invests in new **KM 610.A perfect binder**

Nahdet Misrs in Cairo is the first publishing house in Egypt to invest in a Muller Martini KM 610.A perfect binder under the Kolbus brand featuring 32 clamps for excellent two-shot technology in order to ensure its continuing success – the company enjoys annual growth of over 20 per cent.
With 1,500 employees, Nahdet Misr – which celebrated its 80th anniversary in 2018 – is the largest private publishing business in Egypt, and one of the largest in the Middle East as a whole. It produces some 100 million books each year, including school text books and books in the fields of literature, science, Arab and Islamic culture for adults, comics, art books, and encyclopedias. Nahdet Misr installed four Kolbus perfect binders in 1999, 2009, 2016, and 2018. With a ninth web offset printing press being commissioned in a new building (in addition, Nahdet Misr has three sheet-fed offset presses), the company has opted for a fifth softcover line from Rahden, namely a KM 610.A.
Its two-shot technology with cold glue and hotmelt will enable Nahdet Misr to produce books that have significantly better layflat properties and greatly enhanced durability. Nahdet Misr is confident that the KM 610.A will not only ensure continued excellent quality but will also keep production waste to an absolute minimum. In addition, the new perfect binder is highly flexible, making it ideally suited to Nahdet Misr's needs, since the company has softcover runs of between 500 and 1 million copies, with an average run size of 50,000 copies per title.

However, the KM 610.A will be used not only to produce softcover books but also to produce book blocks in the hardcover segment. The Cairo-based company is considering integrating the various perfect binder lines into a complete system using Connex. There is high demand on the Arab market, and in particular the Egyptian market, not only for larger volumes but also for higher-quality books that can be produced efficiently using high-performance systems.

Müller Martini AG

From left to right: Eng. Fathi El-Kheiashy (CEO of Texti Company, the local Muller Martini agency), Dr. Ahmed Ibrahim (Member of the Board of Nahdet Misr), Dr. Dalia Ibrahim (CEO of Nahdet Misr), Enrico Farinacci (Regional Sales Director at Muller Martini), and Eng. Sherif El-Kheiashy (Vice President of Texti Company).

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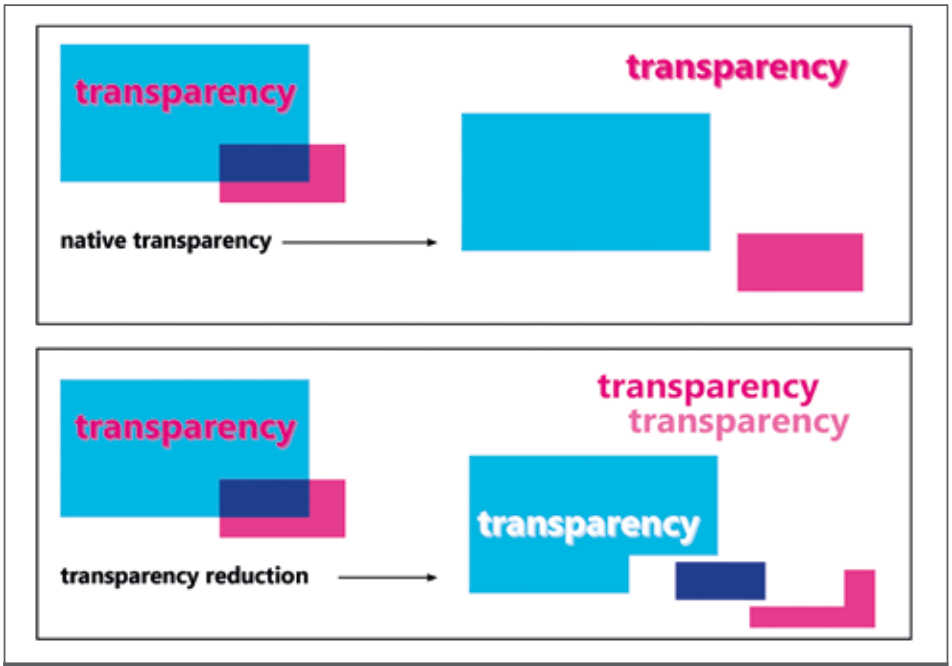
Basics of **print data preparation II**

Nowadays, a large variety of different faults may occur during the transfer of data from the agency or the layouter to the printing house. They are partly ignored or not recognized at all, but may be a reason for costly and time-consuming complaints.
This is why Part I of the **Basics of Print Data Preparation** already explains essential data faults occurring with the selected ICC profile.
However, besides the color profile, the selected PDF version plays an important role. In many cases, it is explicitly fixed by the printing house. Nevertheless, the prepress user must make himself acquainted with the resulting changes and/or problems that may occur.
As a matter of principle, all print data should be selected for a PDF/X version since it is specifically adapted to the printing industry and must not contain, e.g., any elements that cannot be printed, for instance, video or audio data.
The mostly used PDF/X variants are PDF/X-1a, PDF/X-3 and PDF/X-4. Newer versions of the PDF/X series and/or PDF 2.0 are not yet widely used.
In order to be able to differentiate between the different variants, basic understanding of transparencies and colour management is needed.
Transparencies are defined as effects and settings which make it possible to place see-through objects on top of each other and let underlying objects shine through. Examples are drop shadows, opacity effects or feathered edges.
In the course of the preparation of print data, transparencies can be transferred as native transparencies or flattened and converted into new objects. PDF/X-1a and PDF/X-3 still use flattening, i.e., all transparencies are no longer contained as native transparencies, but were converted into many different single objects, as, for instance pixel images or vector graphics. In this case, it is no longer possible to process and move these transparencies as a whole later-on and flattening may cause unwanted image faults. This should later be checked by the user. The PDF/X-4 version, however, can process native transparencies which means that the latter can be contained in the print data as transparencies and can be processed as a whole. Normally no faults occur.

A second important fact is the capability to work with two different ICC profiles, which means that colour management capability is provided. PDF/X-1a cannot do that. In this case, the objects embedded in the PDF must be consistent with the output intent. The advantage for the prepress user is that wrong or even RGB images cannot be embedded inadvertently.
For the device and media independent workflow (late binding), it may be desirable to leave all objects, i.e., texts, images and graphics in their original colour profile until the requested target profile has been determined. This is not possible with PDF/X-3 and PDF/X-4. So, theoretically, I can create a PDF/X-4 with the Output Intent PSOcoated_v3.icc, in which further colour profiles like ISOuncoated_v2 or sRGB are still embedded. If this is not desired, unwanted faults and often unnoticed faults may occur in the PDF/X-3 and PDF/X-4 due to wrong software settings.
If no variant has been fixed by the printing company, the prepress user must choose one. To a wide extent, PDF/X-3 has been replaced with PDF/X-4. Therefore, there is the option of creating PDF/X-1a and then checking for potential transparency reduction faults later-on or creating a PDF/X-4 and checking for potential undesired colour profile faults later-on.

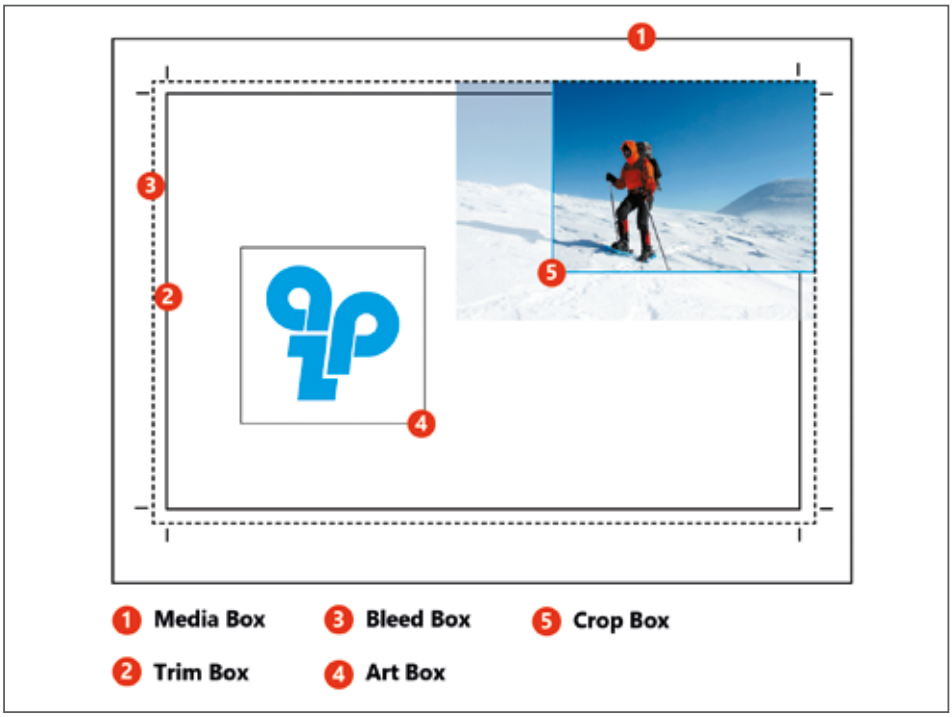


Transparencies

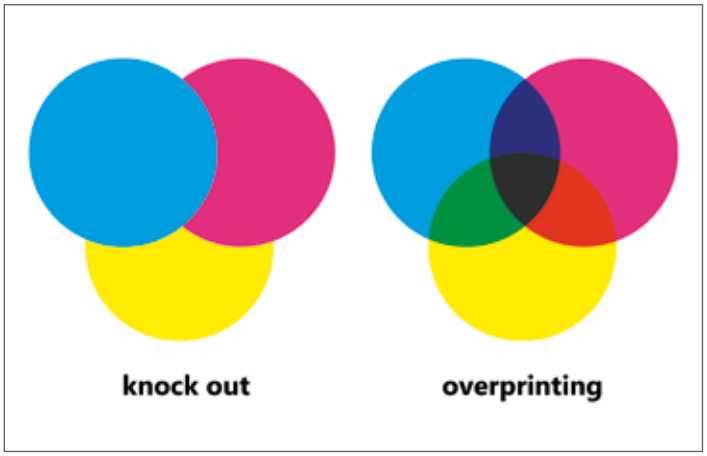
	Transparency reduction	Colour management capability
PDF/X-1a	Yes	No
PDF/X-3	Yes	Yes
PDF/X-4	No	Yes

Another point in print data preparation is the required bleed in order to be able to print edge-to-edge objects without any white gaps. Normally it is 5 mm wide and should be taken into account in the preparation of the layout right from the start. In the PDF preparation, crop marks need not be added since the required dimensions ideally are provided in the framework information given for PDF/X.

The Media Box and the Trim Box, i.e., the size of the medium and the actual final format, must be defined in every PDF. Furthermore, the type of Crop Box as well as, above all, Bleed Box which defines the crop of the print file. These details are embedded in the PDF, are transferred accordingly and can be processed.



Further important aspects in print data preparation are the overprint settings. When two areas lying on top of each other are set for overprinting, they are overprinted as solid areas and/or with the defined tonal values. If, however, knockouts have been preset, the area beneath is left blank and the area lying above is printed on.
The following graphic describes these facts quite accurately:



Due to the different software settings, e.g., in InDesign, of different PDF variants and their application of ICC profiles, a wide range of problems may occur in the preparation of print data. Often there is not just one correct approach. Therefore, it is important to check the finished print data for faults manually or with the assistance of a preflight. Here as well, the user must know which criteria need to be checked. Important manual tools, as, for instance, output preview or reduction preview, can be found in Adobe Acrobat. Furthermore, a preflight check, e.g. in Acrobat or with Enfocus PitStop, is recommendable.

Below is a list of possible faults that should be paid attention to by the prepress operator:

- → 4-c output of black text
- → Solid areas are 4-c screened, frequently by means of a CMYK-CMYK conversion
- → Wrong overprint behaviour
- → Undesired colour profiles or colour spaces, e.g., embedded RGB images result in wrong maximum colour application or wrong tonal value increase
- → Wrong frame definition or general lack of bleed
- → Transparency reduction fault due to unsuited PDF/X version
- → Image resolution is too low; depending on the screen ruling, it should at least be 300 ppi
- → Chromaticity of print data, perhaps they contain, by mistake, special colours
- → And, and, and …

In many cases, these parameters are fixed by the printing company in order to help the customer in the preparation of print data and in order to make these processes more uniform in general.

In practice, often faulty print data are nonetheless accepted, are corrected automatically or changed afterwards in consultation with the customer. Some faults aren`t even noticed by the end customer since he simply doesn`t have the specialist knowledge. But everybody who wishes to prevent faults in advance for time and cost reasons as well as, of course, for quality reasons should examine what is explained above.

David Hofmann (azp Chemnitz)