drupa 2008

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drupa 2008 took place in Düsseldorf May 29-June 11

print media messe

drupa

Every four years all roads in the printing industry seem to empty into the Messe Düsseldorf fairgrounds. This is drupa, and the scale of the exhibition boggles the mind: 1,971 exhibitors from 52 countries, and about 391,000 visitors from 138 countries this year.

(These figures compare with about 1,900 exhibitors and 394,000 visitors in 2004.)

German exhibitors accounted for about 36 percent of the total number of exhibitors and 41 percent of the exhibit space — as evidence of the country's industrial and manufacturing power.

Countries	Exhibitors	M²
Germany	707	71,201
Italy	191	14,254
China	139	6,758
Great Britain	135	7,190
USA	109	13,156
Switzerland	96	12,635
Netherlands	75	9,134
France	56	3,158
Japan	43	8,269
Spain	41	6,290
Belgium	41	6,247
Others	338	17,111
Total	**1,971**	**175,403**

German exhibitors accounted for 36 percent of the total number of exhibitors Source: Messe Düsseldorf GmbH

One thing very clear at drupa 2004 was that the future of Gutenberg's industry is digital. Regardless of run length or process, digital technologies were already steadily soaking into the very fabric of the industry. At drupa 2008 the arrival of numerous inkjet presses addressing all application sectors confirmed the progressive move from conventional to digital printing.

391,000 visitors from 138 countries attended drupa this year
Source: Messe Düsseldorf GmbH
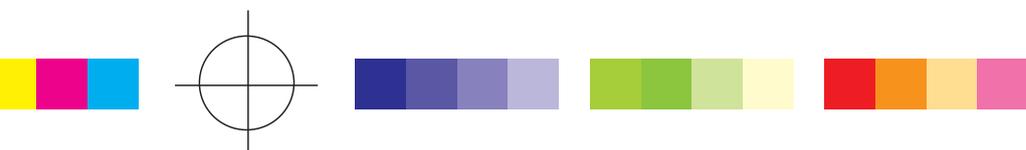
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Other hot topics and key areas of focus at drupa included companies' efforts for environmental sustainability, the growing importance of China for the printing industry (with 139 exhibitors China ranked third, just behind Italy and ahead of the UK), and the efforts made by the manufacturers of conventional equipment to make their presses more productive and flexible.

Key trends in digital printing

- In the monochrome printing area the trend is toward higher speeds and better greyscale image quality. On the cut-sheet side, Kodak announced a system capable of reaching speeds of 300 impressions per minute (ipm), while on the continuous-feed front Océ and Xerox demonstrated the new systems they announced earlier in the year: the VarioStream 8000 Series and the 1300 Continuous Feed printer, respectively. Nipson announced significant print quality enhancements for its VaryPress product line.

- On the colour front, important announcements took place both at the low end and the high end of the market. Xerox, Konica Minolta, Ricoh, and InfoPrint Solutions introduced new systems in the 65-90 ipm speed segment, while digital press vendors such as Xeikon and HP Indigo demonstrated their new presses which have pushed the speed limit of high-quality, full-colour, continuous-feed electrophotographic presses well above 200 ipm.

- As reported earlier, a number of new full-colour inkjet presses were announced and demonstrated at drupa. HP had a strong showing with its new Inkjet Web Press; it was the first public demonstration of the JetStream and Kodak VL2000 presses; and attendees had the opportunity to see Kodak Stream technology in action. Xerox, who until recently had chosen to compete solely with electrophotography (with its new 490/980 Color CF system) at the high-end of the market, announced its move into inkjet production printing.

At its booth, Xerox previewed a cured gel ink technology that prints not only on paper but also on materials like plastic and foil. According to the company "the new cured gel ink holds its shape on nearly any surface because it is not water-based like traditional inkjet technologies."

New large format, high-speed, cut-sheet ink presses were demonstrated by Screen (Truepress Jet SX producing 1,600 sheets per hour — or 107 A4 impressions per minute — with media size up to 503x740 mm) and Fujifilm (JetPress 720 capable of producing 2,700 B2 sheets per hour at 1200 dpi).

- Printing systems vendors are expanding their offerings into new territories. For example, Xerox announced a move into the packaging market with a solution combining its iGen3 colour press, a varnishing unit, a die cutter, and a stacker-conveyor unit from Stora Enso. This solution is specifically targeted at the pharmaceutical sector. Beside the graphic arts market, Xeikon and HP are now targeting transactional/transpromotional applications, while EFI announced its entrance in label printing.

- Hybrid printing solutions combining conventional technology with digital printing were highlighted at the Agfa, manroland, and Kodak booths. Hybrid workflow was another area of focus at the show, as leading printing systems vendors promoted their solutions allowing customers to support both conventional and digital printing equipment from a single workstation.

- Printing systems vendors demonstrated a wide range of applications from highly personalized direct mail to transpromo, and from monochrome and full-colour books to newspapers.

All leading vendors produced newspaper and transpromo applications on their new digital presses
Source: INTERQUEST

Leading vendors' announcements and developments

Hewlett-Packard

HP demonstrated the colour presses it announced in March. These included:

- The sheet-fed **HP Indigo 7000 Digital Press** which prints 120 full-colour A4 impressions per minute and is able to produce 800,000 full-colour A4 impressions per month in one shift, or 3.5 million running around the clock.

- The **HP Indigo W7200 Digital Press**, a new web-fed unit that can produce up to seven million A4-size colour impressions or 30 million monochrome A4 images per month. The press prints 240 A4 full-colour impressions per minute, 480 A4 two-colour impressions per minute, or 960 A4 monochrome impressions per minute.

- The **Inkjet Web Press**, a four-colour system which prints 400 feet/minute (2,600 letter-size impressions per minute) at a resolution of 600 dpi, with a web width of up to 36 inches. The new unit, which uses HP pigmented inks, jets a special bonding agent onto the paper prior to printing to prevent ink spreading through the fibres. The Inkjet Web Press has a recommended duty cycle of 70 million impressions per month and targets the direct mail, transactional, book publishing, and newspaper markets. The system is expected to be commercially available in the second half of 09.

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HP Inkjet Web Press
Source: INTERQUEST

In the software area, HP added the **SmartStream Director** to its SmartStream workflow portfolio announced in March. The new solution, which is the result of an OEM partnership with Press-sense, provides small to large businesses with an integrated and open workflow that can automate, manage, customize, and optimize business and production processes from job creation through fulfillment, including online job submission, placement of variable data, and integration with partner solutions.

InfoPrint Solutions

On the monochrome front InfoPrint demonstrated its 4100 MD1/2 system incorporating the image enhancement feature and working in-line with Hunkeler pre- and post-processing equipment in book and newspaper printing applications. For the newspaper demonstration InfoPrint teamed with Newspaper Direct and it used Ultimate Technology Software along with Abitibi Bowater's new groundwood paper specifically developed to run on electrophotographic systems.

InfoPrint also announced two entry-level continuous-feed units—the InfoPrint 75 and InfoPrint 100, which feature speeds of 115 ipm and 154 ipm, respectively. These new units, based on a Ricoh print engine, are targeted at mid-volume invoicing, direct mail, label printing, and distribution centre picking slips applications.

In the colour area InfoPrint exhibited its **InfoPrint 5000** inkjet press which features speeds of 64 meters/minute or 862 A4 images in two-up tandem duplex mode at a resolution of 720x360 dpi. At the booth, the unit was demonstrated in-line with Lasermax Roll Systems pre- and post- processing equipment (including in-line hole punching and dynamic perforations) producing transpromo documents.

InfoPrint highlighted its **suite of Transpromo solutions** which include InfoPrint ProcessDirector (IPPD); the InfoPrint 5000 press and other software such as Prinova's messagepoint which connects business users to their customers across all customer touch points; Mapping Suite to change the customer experience by leveraging distributed print's marketing potential; as well as GMC PrintNet Suite and Exstream Dialogue. The company also announced that it had added SAS Customer Intelligence to its Transpromo suite. The SAS solution — SAS is a market leader in business intelligence and predictive analytics software — enables organizations to deepen their customer relationships and improve ROI from their direct marketing campaigns.

InfoPrint also demonstrated a new **full-colour cut-sheet printer** featuring speeds of 90 ipm at a resolution of 1200 dpi. Based on the same print engine as the new Ricoh Pro C900, this new unit is expected to be officially announced in the fourth quarter.

InfoPrint new full-colour cut-sheet production system
Source: INTERQUEST

Kodak

Kodak Electrophotographic Division announced the Digimaster EX 300 which combines two Digimaster 150 EX monochrome systems working in-line to produce speeds of 300 impressions per minute. The division also announced the NexPress S3600 — a colour press capable of producing 120 full-colour impressions per minute. Both units are expected to be available in the summer of 2009.

On the inkjet front, Kodak ran the first public demonstration of its new **Versamark VL2000** system announced in January. This new press is targeted at transactional printing operations with monthly volumes ranging from 1 million to 5

million letter-size impressions. It features speeds of 250 feet/minute, equivalent to 1,090 A4 ipm. The VL2000 uses piezoelectric inkjet print heads which offer a resolution of 600x600 dpi and a print width of 18.67 inches.


Kodak Versamark VL2000
Source: INTERQUEST

Kodak also demonstrated for the first time its new **Stream inkjet technology**. According to the company, Stream technology will enable printing speeds of up to 3,600 ipm with print quality comparable to offset for a cost per page of less than one cent. The Stream system demonstrated at drupa 2008 featured a resolution of 600 dpi, but according to Kodak the technology is capable of achieving 1,200 dpi. Other key advantages of the technology relate to its ability to work with a wide variety of ink types and viscosities, as well as its flexibility in terms of substrate compatibility. Kodak full-colour presses incorporating the Stream technology are expected to be on the market in 2012.

Kodak demonstrated its new Stream inkjet technology Source: INTERQUEST

Kodak also demonstrated the Stream technology in a hybrid printing application. The "Stream concept print head" was running up to 1,000 feet/minute in-line with a Muller Martini offset press. The four-inch print head is designed to
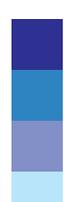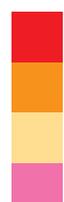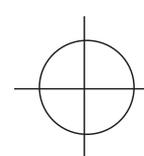
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produce "a deep rich black at 600 dpi on glossy substrates."

Nipson

Nipson demonstrated its new VaryPress 500 press (500 feet/minute) in-line with the VaryPress SCS (Spot Color System) highlight colour printing solution, producing direct mail and transactional/transpromo documents. SCS uses a high-speed drop-on-demand inkjet head array mounted on a specially designed web transport mechanism to deliver spot colour printing of fixed or variable data anywhere on an 18.5-inch wide print area on a web up to 20.5 inches wide. A second array can be mounted on the unit to add an additional colour. Up to two SCS units can be installed in-line with the VaryPress 200, 400, and 500, enabling the addition of up to four spot colours to a job.

Nipson also displayed its VaryPress 200 system in both Single-Engine-Duplex (SED) and Twin-Engine-Duplex (TED) configurations. The TED line printed book blocks and newspapers while the SED version produced checks, labels, and integrated cards.

In addition Nipson announced a new generation of print heads that improve the print quality produced by the VaryPress presses. These new heads reduce single dot size by up to 50 percent, increasing print definition greatly and enabling the printers to print excellent quality halftones at an equivalent screen ruling value of 106 lpi.

Océ

Océ exhibited the **VarioStream 8000 Series** of monochrome systems announced in December 2007. The 8000 Series consists of the 8550, 8650, 8750, and CX, which are faster, support wider webs and print widths, and feature better greyscale image quality than the VarioStream 7000 models. The systems utilize a new 600-dpi LED imaging array and are offered in simplex, twin, and triplex configurations. Triplex systems can print two colours on one side, and one on the other side.

The new ColorStream 10000 press announced in September 2007 was also on display. The CS 10000 is a full process colour printer that uses the same underlying technology as the 9000 family. It prints 852 black-and-white impressions and 172 full-colour impressions per minute.

The ColorStream 10000 targets customers producing an average of 45 million monochrome and 5 million colour images per month. The ColorStream 10000 will be Océ's first printer driven by an Océ SRA controller incorporating the new Adobe PDF Print Engine 2, which improves processing of PDF resources in the print workflow. At drupa 2008 Océ also announced that in the future the ColorStream 10000 will be supported by the new **Océ PRISMAcolorworks** output management and workflow system enabled by Creo colour server technology.

A key highlight of the Océ booth was the **JetStream** full-colour inkjet press announced in December 2007. The press prints at a resolution of 600x600 dpi with small variable dot sizes which improve the print quality. The JetStream uses water-based dye inks and features a print head life of 3,000 hours. It can run 16 to 40 lb. bond paper from 6 inches to 20.5 inches (up to 21.4 inches with modification). The JetStream 1100 is a single-engine system that produces 1,090 duplex impressions and has a monthly duty cycle of 33 million impressions. The JetStream 2200 is a twin-engine system that produces 2,180 duplex images and has a monthly duty cycle of 66 million impressions.

The JetStream is driven by an Océ SRA MP Controller which supports AFP/IPDS, PostScript, and PDF.

In Düsseldorf Océ announced lower speed and higher speed models in the JetStream family: the **JetStream 750** (675 A4 ipm at 600x600 dpi), **JetStream 1500** (1,300 A4 ipm at 600x600 dpi), and the **JetStream 3000** (2,700 ipm at 480x600 dpi).

On the software front Océ showcased the versatility of its PRISMA software for the graphic arts market. From a 'software island' of 12 workstations, Océ demonstrated every process step in modern production workflow: document creation, scan, and make-ready using Océ Document Designer and Océ DocSetter software; and web-to-print and soft-proofing solutions using Océ PRISMAweb and Océ TrueProof, central. Océ also highlighted PRISMAaccess and PRISMAprepare targeted at midsize printshops, as well as PRISMAspool and PRISMAproduction for higher volume production users.

Océ JetStream 2200 press
Source: Océ

Xeikon

The key highlight of the Xeikon booth was the first public showing of the **8000 press** announced in March. The new unit prints at speeds of 230 A4 impressions per minute at a resolution of up to 1,200x3,600 dpi with 4 bits per spot. The press features a new PA toner (to handle the higher print speed) and a fifth imaging station is available for spot colour or MICR printing. Capable of handling up to 8.5 million impressions per month, the 8000 press is targeted at graphic arts, direct mail, transactional, and transpromo, as well as book printing/publishing applications. The 8000 was demonstrated in a full variable data, direct mail application in a roll-to-roll configuration. The documents were finished at the Hunkeler booth.

Xeikon 8000 press Source: INTERQUEST

Xeikon also announced that customers who have installed a 6000 press (introduced at the end of 2006) will be able to upgrade their machine to 1,200 dpi. At the booth a 6000 was demonstrated in a book printing application, in-line with Hunkeler CS6 cutter. The book blocks, which had the first two pages personalized with the photo and information about the visitor attending the demo, were finished on a Horizon book binder.

Xerox

On the monochrome front Xerox demonstrated the recently announced **650** (simplex, 650 ipm) and **1300** (twin, 1,300 ipm) **Continuous-Feed** systems. The units are based on Fuji Xerox print engines, use flash fusing, and provide image quality enhancements compared to their predecessors.

In the colour area, Xerox launched the **Digital Color Press 700** — a device which offers print, copy, and scan capability and is positioned between the DocuColor 260 and the DocuColor 5000. The 700 prints at speeds of 70 ipm in black and full colour at 2,400x2,400 dpi. It uses Xerox EA (chemical toner) and handles papers from 64 gsm to 300 gsm.

streaks, provide better colour consistency, eliminate grey-scale calibration (resulting in higher quality neutral greys and highlight shadows), and improves photo smoothness, especially in faces, while maintaining background details.

In addition the iGen4 features a high-speed in-line spectrophotometer right in the paper path which enables production of offset and photo image quality along with spot colour accuracy. The new press, which offers the same rated speed as the iGen3 (110 ipm), is scheduled to be available for installation worldwide in September.


Xerox Digital Color Press 700 Source: Xerox

Xerox also announced the **iGen4 Press** which, according to the company, increases productivity by 25 to 30 percent (compared to its predecessor the iGen3) by automating operator tasks and reducing the need to interrupt the press for adjustments. To improve image quality, Xerox has incorporated into the new machine several technology enhancements that automatically detect and eliminate density variations and

Xerox demonstrated the **iGen3 Concept Color 220**, a system that combines two iGen3 print engines working in-line to produce 220 full-colour impressions per minute. Based on the same approach as the Nuvera 288 monochrome system, the press uses the first engine on one side of the paper and the second engine to print on the other side.


Xerox iGen3 Concept Color 220
Source: Xerox

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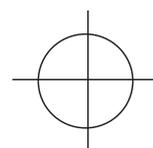
At the high end, it was the first public demonstration of the **490/980 Color Continuous-Feed Printing System** which was announced in October 2007 and features a print speed of 226 feet/minute (up to 986 ipm in two-up duplex mode). The 490/980 uses LED imaging heads which yield a resolution of 600x600 dpi and employs flash fusing technology.

Other announcements and developments

Canon demonstrated its new 135 ipm monochrome cut-sheet system unveiled at the AIIM OnDemand Conference in March. Canon also highlighted its hybrid workflow solutions including the integration of Canon ImagePRESS presses with Agfa Apogee and Heidelberg Prinect workflows.
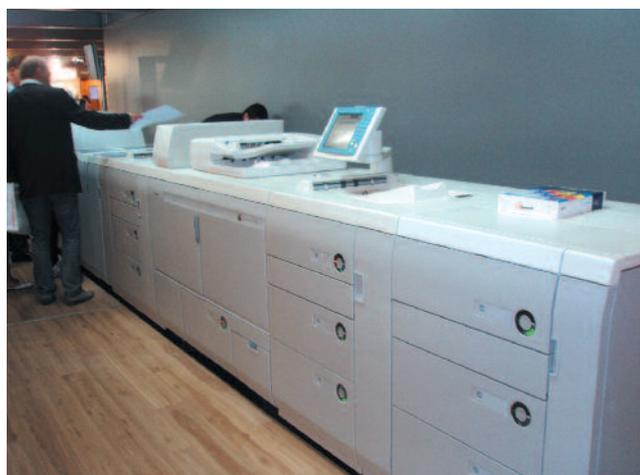
Konica Minolta showed a new monochrome high-speed cut-sheet system targeted at print-on-demand applications. The bizhub PRO 1200, which features a new LED imaging system (Konica Minolta's previous POD unit, the bizhub PRO 1050 [105 ipm] uses laser technology), prints at speeds of 120 ipm at a resolution of 1200 dpi. According to the company, the new device can handle up to three million impressions per month.

In addition, Konica Minolta exhibited the **bizhub PRO 2500P** (250 ipm and based on the same print engine as the Océ VarioPrint 6250), as well as the new C65 HC (High Chroma) – an enhanced version of the bizhub PRO 6500 colour device (65 ipm in full colour) that uses new toner and firmware to produce a broader colour gamut.

A date for your diary...

drupa 2012 will take place 3-16 May 2012. Save the dates in your diary now!!

Canon new 135 impressions/minute
Source: INTERQUEST

For more information on Gilles' reviews from drupa 2008 and specialist reports, visit www.inter-quest.com

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"At drupa 2008 the arrival of numerous inkjet presses addressing all application sectors confirmed the progressive move from conventional to digital printing."