vibrant • adj. 1 full of energy and enthusiasm. > (of colour and sound) bold and strong. **2** quivering; pulsating.

– From the Concise Oxford English Dictionary

Dear Reader,

This is the last issue of Spindrift's third year. It is also the last issue before the big show in lovely Birmingham. We are currently crazy busy getting the second edition of the Digital Dots Technology Guides ready to be printed in time for the show. There are five guides: Colour Management & Proofing, CTP, Digital Printing and DI Presses, JDF and finally, Preproduction Data Management and Quality Control. The Guides will be available at the show, at the stands of our clients including Agfa, Canon, Enfocus, Esko, Fuji and Screen. Also, from the beginning of the show, you can order any of the Guides via our website.

We are also involved in a rather exciting event taking place at the NEC on April 5, the show's second day. Laurel Brunner will be heading an industry discussion – no doubt a lot more enlightening than the one headed by BBC's Mr Hardnose, Jeremy Paxman, the day before. On the panel are some big names in the UK printing industry, including John Charnock, Group Director Technical Services at St Ives and Ray Hartman, Group Executive VP at RR Donnelley. The discussion topics are: ➡ Polarisation in the printing industry, between huge commodity print manufacturers and bespoke service providers, is inevitable. ➡ Partnering and cooperation, global and domestic, is the only way small to medium print enterprises can survive.

Finally, as we told you in issue 9, Digital Dots has set up the International Graphic Arts Editors' Forum (IGAEF), on www.digitaldots.org. The first meeting of this group took place during the pre-Ipex press conference at the end of January. We are happy to tell you that interest in the forum has been so great, that IPEX has agreed to host the first annual meeting of the group. It will take place on April 3, the day before the first day of the show, at 17.30 at the INNOV8 Theatre. The idea is to "foster energetic and positive dialogues between trade press journalists, and to ensure a vibrant and lively industry press." Go IGAEF!

And see you all in Birmingham!

Laurel, Cecilia, Paul and Todd

In This Issue

Automation, automation, automation

Here we go again, time to talk about JDF. But this time, don't take it from us, because we have talked to several users for whom JDF implementation has lead to increased automation and in turn increased efficiency and a healthier bottom line. Writes Laurel Brunner: "Automation is the reason why companies are implementing JDF, both for printing process management and for business efficiency. And although automation is about much more than just JDF, JDF adoption is spreading because companies recognise competitive threats they face." Meet the folks in the know…

see page 9

Three weeks and counting

Ipex is nearly here, and there is so much information to digest in order to make the most of the show. Fear not, we have trawled through the offerings of some of the major players, and in our second Ipex preview, the focus is on output, particularly in the form of CTP. And what is going on in the world of DI presses? Asks Laurel Brunner: "Heidelberg is ditching DI and Presstek is introducing a named DI press, so which is the right strategy? Does the combination of Fuji's superfast CTP and Komori's breakneck speed for on-press make-ready undermine arguments for DI, or is it about cost of investment and cost of ownership?" Read all about it…

see page 15

Regular Columns

News Focus

Plate prices are going up. All three leading suppliers are facing substantial increases in raw materials and energy costs, so the price hikes should not really come as a surprise. Agfa describes its rise thus: "Increases are substantial, on average double digit, but vary depending on markets and regions. They take effect immediately."

Markzware's Pagemaker to Quark Xpress extension, PM2Q6 imports versions 4.2 - 7.x of Adobe Pagemaker files into Quark Xpress 6 documents. It is now available for Macintosh.

Gradual Software has appointed Positive Focus as its UK Distributor. The company will be responsible for Gradual's full line of Switch products for automated publishing. See Expandocs for details.

Congratulations to the UK's **ROI** which has once again won Xerox's VAR (Value Added Re-seller) of the year award. This prize goes to the VAR which has done most to expand Xerox's share of the graphic arts digital printing sector, and it's the second time ROI has won it in three years.

The Ghent Output Suite is now available to help professionals determine whether PDF files are behaving themselves in specific graphic arts workflows. This the first series in the Ghent Output Suite, consisting of eleven PDF test patches and guidance for each patch, covering the most common issues relating to PDF for print workflows. Get the free Ghent Output Suite at www.gwg.org.

Insight Communications, a leading reseller in India, is to distribute **Human Eyes'** 3D solutions. These are patented methods for creating stereo panoramic 3D pictures for lenticular printing. The software overcomes optical limitations that have existed for over 90 years, to allow creation of a new standard in 3D pictures. It has been determined that advertisements created using this technology result in dramatically increased impact on the viewer.

This technology is the basis of HP Indigo's Lenticular 3D technology. The lenticular kit works with the HP Indigo s2000 press for producing lenticular effects for specialty printing applications, such as direct mail and promotion. The effects include such things as morphing, zooming, animation, and 3D.

Microsoft is launching Office 2007 in seven (count 'em) versions, ranging from basic to horribly complicated. The Enterprise version includes Groove 2007, which is a collaboration technology. It sounds to us like Microsoft is adding things to make even more complex messes possible as users move between Word, Pouvoir Point and Excel. Or maybe not.

Intel is launching the Ultra Mobile Personal Computer, the UMPC. This doesn't work too well if you say it out loud but Intel says this new platform is "designed to access online media and content on the go". It's a next generation PDA but it's got the power of a PC. This could be one of several such devices due to be shown at Cebit, which starts shortly in Hannover.

Ipex Froth

Canon is launching new monochrome devices. The Ir7086, Ir 7095 and Ir7105 print 86, 95 and 105 pages per minute and have improved paper handling. They include an inline perfect binder which makes them unique in their class. They have a 5000 sheet stacker and integrated, ad-

justable hole punching. Canon has not announced pricing or specific workflow options.

For large format output Canon is introducing the Imageprograf Ipf5000, a high quality, high volume printer for A2 proofing. The device has a high density twin print head and a high speed controller for high quality imaging. It uses Canon's twelve colour pigment ink system for a wide colour gamut and has a four-way media feeder: cassette, roll and two manual feeds. The printer will be available in April and cost £1,395.

Digital Information, developers of digital workflow technologies, is showing new high quality screening technology for boosting quality, the double-sided Preproofer 740/940 and 780/980 printers (Epson engines). There is also a new JDF Bridge software package for unifying heterogeneous production environments.

Esko is launching its latest version of Scope 3 workflow technology at Ipex.

Perfectproof is unveiling its new corporate identity at IPEX, along with the new Proofmaster v3 software solution suite. Besides enhanced proofing for offset, gravure, flexo and newspaper production, the software will offer film production for screen printers and wide format printing and cutting capability.

One Vision, developers of preproduction data management software, will launch OSX versions of Solvero and Speedflow Edit for PDF, EPS and Postscript editing.

A new concept in colour management is being launched. (Do we need another one of these one wonders?) The UK's first Centre for Industrial Collaboration (CIC) in Digital Printing lives at Leeds College of Printing and is government-sponsored. Enough said really...... Its goal is to focus on the expertise of the university to benefit industry. Ipex visitors will have the opportunity to find out more about the initiative, which aims to set the future standard for colour management within the printing industry. So much money, so much commitment, so much knowledge, so little point perhaps.

CGS Publishing is introducing two new colour workflow applications. ORIS Package Pro is a complete packaging proofing system, with particular emphasis on flexographic reproduction. ORIS Colour Server is a database-driven web environment for a range of ORIS colour workflows, including remote proofing, job submission and preflight, and digital file processing.

Optimus, supplier of MIS, is launching several new modules for integrated and connected MIS. Optimus 2020 Quicksmart has improved auditing and work-in-progress capabilities, greater support for fast turnaround jobs and collaboration, more access to data for analysis and improved scheduling. Optimus Analysis interrogates MIS data for reporting, and Optimus Connect collects production data from equipment on the shop floor without using JDF or JMF technology.

Epson claims it will have the largest digital proofing and large-format inkjet solutions arena at IPEX. (Are they serious?)

Beijing Founder Electronics and Poland's ACC HSH Group are demonstrating their combined development for the first time at IPEX. ACC HSH Group's PDF Preflighter and PDF Trapper modules are now options in the new release of Founder's Elecroc PDF workflow solution.

Punch Graphix is inviting visitors to work out the savings achievable with a Basysprint CTP system.

HP Indigo is showing its new w3250 press, plus new HP Designjets for outdoor signage. It will also demonstrate the newly acquired HP Scitex Vision printers.

Spindocs

We just love this.

It caused us to waste a perfectly lovely sunshiney Sunday afternoon pondering the number of times we have been asked such favours by consultants, as in "I just wondered if I could pick your brain for a few minutes". Then they slap their unnamed client with a bill for many, many of the readies without so much as a backward glance. Maybe it's just us and our rampant, death defying paranoia!

From: XXXX <XXXX.ca>
Reply-To: "Computer To Plate Pressroom" <ctpp@ printplanet.com>
To: Computer To Plate Pressroom <ctpp@printplanet. com>
Date: 27, February 2006 11:00 pm
Subject: [ctpp] Business case for CTP at a small shop...

Hi everybody:

A favour to ask: Does anybody have an old business case that they used to justify a CTP purchase to executives who had NO background in pre-press or printing?

Would it be possible to e-mail the documents or better yet, post it to the forum with commentary?

I mean, what are the magic numbers that forum members used to convince their (non-print knowledgeable) executives that buying CTP made good business sense?

Thx in advance,

NAME ON REQUEST
Business Analyst
NAME ON REQUEST Consulting Corp.

Driftwood

Ifra eNews

The global newspaper association Ifra has launched an initiative called eNews. Essentially it is a three year project exploring the opportunities of the evolving mobile e-reading market. The project currently has 25 member companies; 21 are international or big national newspaper/media groups, the rest are technology suppliers.

Those readers who have followed e-paper developments have noted that a number of devices have come onto the market over the past five or so years, but nothing has really taken off. Well, it looks like that's about to change. Sony has just launched a new e-reader, and Dutch Philips spin-off iRex Technologies are following suit in about a month with an e-reading device based on E-ink technology (E-ink originated at MIT). And there are many more developers, particularly in Japan, ready to go to market with similar offerings. Anyway, in parallel with events in the hardware market, a couple of national newspaper associations (in Sweden and the Netherlands) have been running projects aimed at identifying opportunities for newspapers as content providers in a mobile e-reading world. Dr Stig Nordqvist, who is Business Development Director at Ifra, also works for the Swedish Newspaper Publishers' Association, and has been involved in e-reading projects for the past three years. He is the project leader for Ifra's newly started eNews initiative.

The aim of the eNews project is to provide a base for the newspaper industry to be proactive in this emerging market – in contrast to what happened to them in the mobile services market, where mobile operators pretty much run the show and decide how much revenue newspapers end up getting for services they run. The eNews initiative aims to provide publishers with know-how on business models as well as process technology, thereby allowing them to hopefully make well founded strategic decisions. Also, representing a total of at least 40 million readers worldwide, the group will be able to act as a lobby group vis-à-vis technology and service providers in the mobile

e-reading market. The three year project will include seminars, workshops, commissioning of consumer research, etc.

The project members (who all invest to be part of the project) are: Bonnier/Expressen (SE), De Telegraaf (NL), Edipresse Publications (CH), Georg von Holtzbrinck GmbH & Co. (DE), Libération (FR), Mainichi Shimbun (JP), New York Times Company (US), Nordjyske Medier (DK), Orkla Media (NO), PrisaCom/El País (ES), Rheinische Post (DE), Sanoma Corp. (FI), Schibsted/Aftonbladet (NO/SE), Stampen/Göteborgs-Posten (SE), Styria Medien (AT), Tamedia AG (CH), Telegraph Group (UK), Tribune Interactive (US), Vorarlberger Zeitungsverlag und Druckerei (AT), Westdeutsche Allgemeine Zeitung (DE), Yomiuri Shimbun (JP), Arena Partners (FI), iRex Technologies (NL), Plastic Logic Limited (UK), Escenic (NO).

For more info about e-readers see www.irextechnologies. com and **www.eink.com**

Mini Test

(A new product that we find interesting.)

I Robot – sorry – iO robot

Gretag Macbeth, soon to merge with X-Rite, has started to ship the much awaited scanning device iO, to be used in conjunction with the spectrophotometer Eye-One.

While Eye-One has become a very popular medium priced measuring device, suitable for calibration and characterisation of both monitors, colour printers and printing processes, it is hand held. This means it is an entirely manual procedure, so the robotic extension provides automation and fast processing.

We have tested the Eye-One iO, and are pleased to conclude that it is both easy to handle, and fast. A typical test form, an IT8.7-3 with almost a thousand colour patches to measure, is done in less than two minutes. The Eye-One iO reads the patches in stripes, cleverly zig-zagging its way across the surface of the test form. It means that

when reaching the end of a row, it doesn't go all the way back to the start of the new row, but instead moves one step up (it starts in the lower left part of the test form) and then reads the next line backwards.

The reading distance height from the substrate can be adjusted up to 10 millimetres on the Eye-One iO, allowing for thick materials like carton and ceramic tiles.

As on the "bigger brother" Spectroscan (used with the Spectrolino spectrophotometer) the substrate is held in place thanks to a static electricity field that can be

The Gretag-Macbeth robotic measuring device Eye-One iO reads a typical test chart in less than two minutes.

switched on or off. In fact the Eye-One iO is much faster than using a Spectroscan, since iO reads in stripes, and Spectrolino one patch at a time. If you want an averaged measuring result you can quickly measure several sheets, and then ask Profile Maker to average the result of the provided measurements. Our only complaint on the iO is that you have barely time to go and get coffee while waiting for the robot to do the measurements for you. Maybe that is an option to consider for X-Rite when considering a redesign of iO – either to teach it to fetch coffee, or build in a espresso machine.

Say What?

(Iffy Writing Award Presented in the Ether for Obfuscation, Confusion, Misinformation or All Out Pretentiousness)

A contributor to the CTP Forum wrote:

"Remember the early claims that the square spot printed sharper than non-ctp dots that had ragged edges?"

And got this response:

I think you are mixing claims. Anyhow, neither was a claim made by Creo.

thx, gordo

Kodak Graphic Communications Canada Company
Gordon Pritchard/Value In Print Marketing Manager
Tel: +1.604.351.2437
gordon.pritchard@creo.com
http://graphics.kodak.com

Just for the record:

In 2001 Dan Gelbart, president of Creo Inc wrote a letter to the Seybold Report on Publishing Systems stating, among other points, that:

"the Squarespot laser head [has] a laser spot size of 2.5 x 10 microns, which is smaller than … any other laser used in graphic arts today. The 205 x 10 laser spot is 'swept' to create a 10 x 10 micron [spot]. In case your readers are wondering what is the point of having an optical spot much smaller than the resolution (addressability) of the machine, the answer is that this is done in order to achieve a very sharp transition at the edge of the spot. The sharper the transition at the edge of the spot, the better the stability and process control of the machine."

We don't know Gordo, but perhaps being young and fresh has its limitations after all?

Boomerangs

(Your feedback fed back)

Date: Fri, 10 Feb 2006 14:29:23 +0000
Subject: HBDI info
From: Paul Sherfield <paul@missinghorsecons.co.uk>
To: Laurel Brunner <lb@digitaldots.org>

Hi Laurel

It could be this.......

http://www.hbdi.com

They Quote... The HBDI is the world's leading thinking styles assessment tool. It identifies your preferred approach to: emotional, analytical, structural, and strategic thinking.

Looks like BS to me!

Regards

Paul Sherfield

Many thanks Paul for the clarification, and of course the confirmation!

Acrobites

(Something to get your teeth into)

NXD

A Native XML Database is a bit of a misnomer because NXDs don't really store the XML in its true, native, text form. An NXD defines model for an XML document, that's the model, not the document's content data. It uses this data about the model as the basis for storing and retrieving documents. The model includes elements, attributes, and the document's order.

XML is the document's fundamental unit of storage, just as a relational database uses rows in a table as its map for

storage. **An NXD doesn't care what the storage model is so it could be based on a relational, object orientated or even a flat file database. The key thing is to make sure that the database works for storing XML data and that documents go in and come out unmolested.**

NXDs aren't really databases at all but they do assist developers because they provide reliable storage and manipulation of XML documents.

LASER

Light Amplification by Stimulated Emission of Radiation Of course we all know what a laser is, but did we all know that the word started life as an acronym and has migrated through adjective, adverb, noun and verb phases to be a fully fledged, wantonly behaved English word? One for the Scrabble board.

Expandocs

(In this section, we aim to cast some extra light on a particular recent news story.)

Gradual

Switch is a completely new product family comprising a range of automation technologies. All of them run on both Mac (10.4 on both PowerPC and Intel based Macs) and PC (Windows 2000 and XP Professional) and the suite is designed for tayloring the technology to meet the workflow demands of particular application.

All components in the suite fully support both Mac and PC, obviously with the exception of those features that are platform specific, such as Apple Automator which is irrelevant for Windows machines. These cross platform technologies will succeed the Caslonflow technologies that have been Gradual's foundation product, over the course of the last year. Gradual has talked to its customers and decided to redevelop the technology from scratch, a conversation the founders perhaps should have had before they purchased Caslon. The new version has been developed in house with some outside work done by

subcontractors in Belarus. Everything to do with Caslon is going, including the Danish office and staff.

The existing Caslon technology is being jettisoned, and Gradual intends to support current users as they make the transition to the new technology. All development and support henceforth resides in Ghent. Switch is a completely new product family consisting of Lite Switch, Full Switch and Power Switch. The first two will be out next month and the last later this year.

There are somewhere between one and two hundred Caslonflow customers, a number which is necessarily vague. The Caslonflow technology has been bundled into a number of OEM systems including products from companies such as Esko, so Gradual has apparently no information about where and how these customers work with its technology. Support is generally split between Gradual and its partners, including Value Added Resellers and distributors, which also complicates matters.

Tech Check

Lite Switch is a basic tool that automates file receipt and transmission, preparing files for their next processing steps. It checks email accounts and FTP sites to automate file processing across a network.

Full Switch includes the Lite Switch technology and is the closest of these new technologies to the existing Caslonflow product. It shares much of the same functionality and feature set, and can be configured to work with third party applications from Enfocus and Apago. It can also handle more than one file at a time, creating job folders with numerous content files for single folder processing. It also has an extra configuration for Apple Automator, the automation script builder that comes in Tiger. This means that it is possible to run Mac based scripts, although it isn't possible to actually write scripts in this version. The cost of Full Switch is €2500 which is slightly more than the cost of Caslonflow.

Scripting is possible in the third component of the Switch suite. Power Switch is an advanced metadata toolset for processing any XML based metadata such as JDF and

XMP. It can be used for all sorts of things, such as file routing and management, setting processing parameters for preflight checking and managing preflight profiles. It would also have scope for managing dataflows across different databases, and Gradual expect that this technology will be of particular interest to newspapers and magazines for workflow management.

Power Switch is designed for client/server architectures for remote processing and data routing. It is currently designed for Local Area Networks (LANs) rather than Wide Area Networks. This version costs €5000. Lite Switch and Full Switch will be released at Ipex and Power Switch will be available later in the year. This technology is now in beta testing along with a more ambitious version that is the basis of Gradual's future workflow ambitions.

So we have to ask, was the Caslon purchase an expensive mistake? According to David van Driessche, cofounder of Gradual, it wasn't. Caslon got Gradual into the market a year ahead of when they might otherwise have entered it. It also gave them a customer base and revenue stream while they were developing the new technology.

Destination Automate

All this fuss over JDF in many ways misses the point. JDF is the means, but not the end; it's the data format, but not the process. The point we should all focus on instead is how we can achieve process automation and how JDF can help us to do so. Automation is the reason why companies are implementing JDF, both for printing process management and for business efficiency. And although automation is about much more than just JDF, JDF adoption is spreading because companies recognise competitive threats they face. Across all parts of the media production supply chain, companies large and small are implementing JDF workflows to automate and improve their business competitiveness. Some do it a little at a time, and some do it on a grand scale.

We don't hear much about small companies getting into JDF and automation, which is a pity because the benefits are equally relevant for small businesses. For example, in 2004 Belgian company Tanghe Printing became the first printer in the country to use an integrated JDF network. Tanghe works with Agfa's Apogee X workflow system and a Hiflex MIS and has set up an online connection to Tanghe's two Komori presses based on JDF.

The result has been a considerable gain in job throughput because of faster processing, and this has in turn improved prepress production transparency and press usage. Tanghe Printing is not a particularly large company. With two presses and a single 8-up Agfa CTP engine, the organisation is pretty typical of commercial print shops around the world. Via the Hiflex MIS planning module and reports from the Apogee X workflow system, staff can follow production in real time without having to leave their workstations. According to director Patrick Tanghe "the JDF connection between Hiflex and Komori has allowed us to rationalise and make important advances with regard to simultaneous processing." The company has improved its ability to respond effectively to customers job booking requirements, something which is fundamental in a market where job changes are frequent and the volume of short run jobs high. Patrick Tanghe says: " We are always looking to increase the level of automation, further increase our productivity, reduce our costs and improve our customer service. The JDF link between ApogeeX and Hiflex MIS totally streamlines our prepress workflow, just as JDF did in the press room".

With around 40 employees, Tanghe Printing is a modern print house that produces a wide range of print products, including company report and accounts work, reviews, books and brochures. When a new order comes in details are entered in the Hiflex order book and immediately sent to ▶

This article is part of the forthcoming Digital Dots Technology Guides, to be premiered at Ipex. It is produced as part of an international graphic arts industry collaboration between Digital Dots, its publishing partners and its clients.

It is part of a special project to address business and technology issues crucial to digital print media production. The series of educational articles explains print media technologies, business issues and market drivers for print media production, in both existing and new markets. These articles will be published as a series of individual Technology Guides due for print publication in April 2006.

- *The Guide to JDF*

- *The Guide to Colour Management & Proofing*

- *The Guide to Digital Printing & Direct Imaging Presses*

- *The Guide to CTP*

- *The Guide to Preproduction Data Management & Quality Control*

Further information is available at the Digital Dots website: **www.digitaldots.org**

This project is supported by several organisations, including the following:

Agfa	*BPIF*
CIP4	*Enfocus*
Esko-Graphics	*Screen*
Fujifilm	*Ipex*
Canon	

the ApogeeX workflow system via JDF. All administrative information, including order number and description, customer name and address, contact person, job data such as cover and details content, production requirements, number of pages, inks, is all transferred via JDF. According to the production plan in Hiflex, the imposition is generated in Preps and imported into the Agfa ApogeeX production system where final prepress parameters such as CTP output resolution, screen ruling, trapping details, and so on are automatically set. Any order amendments, such as the number of pages, signatures, or whatever, are first updated on the Hiflex production estimate before being transferred via JDF to Apogee X. This ensures that project pricing, electronic job ticket and production schedules are all up to date.

"The JDF-link between ApogeeX and Hiflex ensures that job modifications are immediately transmitted to prepress. It also improves the efficiency of customer services, as even last-minute modifications are incorporated into the production process," says Patrick Tanghe. "And I can see far more potential in our JDF connectivity: it is the key to further process optimisation in prepress. Agfa and Hiflex are working closely together so that we can exploit more capabilities in future versions of the JDF specifications. We predict that we will be able to dispense with a complete process in prepress."

Tanghe Printing made only a "minimal" update to its IT infrastructure and the press control system to set up its JDF workflow, linking the Hiflex MIS and Apogee X to the presses. The data transfer between the two is bidirectional and throughout production the status of the press is simultaneously communicated to the Hiflex MIS via JDF/JMF. The status, the printing speed and the correct copy number are all communicated to the Hiflex job planning module. Planners can thus see the actual status of all orders in production.

The system now offers the company possibilities to manage all aspects of its production within an integrated networked environment, with JDF the basis for managing data interactions. Patrick Tanghe says that: "The acceptance of the Hiflex MIS was no more than a matter of several weeks. Beforehand many systems were used, which each time required new information handling. The advantages [of a single system] were more than obvious so the Hiflex system was warmly accepted by the users. The installation of the JDF connection had the goal of using the highest performing technology on the market, in order to raise productivity while avoiding double work and strengthening our competitive position."

Stefan Reichart, the company's managing director also sees that "the co-ordination of different processes is determined by production planning and the control module functions as a JDF controller." For each customer order the system generates a preliminary estimate and then a final calculation of costs. Because the base data for this calculation is available in the Hiflex system, it can be simultaneously directly communicated to the Apogee X workflow system and the Komori K station press control

We don't hear much about small companies getting into JDF and automation, which is a pity because the benefits are equally relevant for small businesses.

system via JDF. This provides Tanghe Printing with an extremely tight cost and process management mechanism.

This system also provides the company with a means to optimise its workflow, particularly between job booking and production, via JDF. The company can use booking and production data for daily planning and short term equipment capacity management. In this way Tanghe can optimise planning of changes to jobs, machine halts and use of supplementary equipment.

JDF has helped this company enhance quality control and productivity. According to Patrick Tanghe "workflow simulation with the Hiflex MIS offers us the possibillity to integrate internal communications with a simple click of the mouse. In fact, Hiflex provides production planners with the means to request status information right down to plates, paper inventories, the client details and order information. The planning module is a highly precise utility. Production process transparency is substantially increased and our efficiency is definitely going up. Modifications to short term planning have turned out to be much simpler."

Tanghe employs 40 people but it is not uncommon for even smaller companies to upgrade process automation when they make other investments. In the Netherlands, Alkemade Printing made a first step towards automation when it purchased Screen's B2 Platerite 4100 platesetter and Trueflow workflow technology to automate production of its B3 and B2 commercial work. Investing into CTP and workflow has given Alkemade Printing and its 17 people the basis for producing a lot of plates automatically overnight, so clearly process automation is very important to the company. Managing director Rémon Alkemade explains that: "Standardisation cannot be achieved half-heartedly. Every step in the production process must be under our control. Once a week we check all parameters by producing a test plate. Up until now it has not been necessary to do any recalibration."

To hold and reinforce this position, optimal control of the production workflow is essential. Trueflow optimises the workflow for CTP, producing digital proofs, digital printing and the distribution of PDF files for remote proofing and printing. It features file check, OPI support, trapping and imposition and was developed to drive CTP production. The latest version can handle PDF 1.4/1.5, enabling users to switch easily from a PDF and Postscript workflow to a JDF-based workflow.

At the opposite extreme is Color-Gruppe in Germany, one of many large organisations getting into automation and JDF on a grand scale. The company wanted to automate processes across several companies within its group. It employs over 130 people and started life as a simple printing house. It has evolved into a group of companies offering a complete portfolio of print communication services, from design to finishing. The company produces brochures, catalogues, books and many other high quality colour print products. This company wanted to solve a range of

Tanghe works with Agfa's Apogee X workflow system and a Hiflex MIS and has set up an online connection to Tanghe's two Komori presses based on JDF. The result has been a considerable gain in job throughput because of faster processing, and this has in turn improved prepress production transparency and press usage.

problems as well as automate processes. One of the most serious problems was processing errors, with jobs missing necessary information such as the production tasks required. This problem was compounded by the fact that costing information had to be gathered by hand, and it was not always possible to fully account for time spent in getting the information necessary for efficient job processing. This is just a single example of how what might appear to be a small almost trivial problem, might add up to be very expensive and even compromise a company's ability to thrive and grow.

To solve it, Color-Gruppe went wholesale for a Heidelberg solution based on Prinect Prinance and Prinect workflow technologies. The idea was to get costs down and to raise productivity, by reducing process costs and increase the number of jobs through the system. Like many printers, Color-Gruppe has seen print runs falling over the years. The company recognised that efficient prepress and make-ready were the key to keeping presses rolling and to bringing up revenues.

Working with their supplier, Color-Gruppe spent over four years making the transition to an integrated and automated system. The implementation of different components of course takes time, however today Color-Gruppe has substantially reduced processing costs per job and increased throughput capacity. The company benefits from greater processing reliability and is a strong position to offer customers additional services.

Commercial printers operating with far fewer or far more employees than Color-Gruppe can also benefit from process automation through JDF. DSI Talisman in the UK has seen similar improvements and has integrated various technologies using JDF including Kodak Synapse and Optimus MIS. The new interlinked JDF processes are 50% faster than processing without automation and managing director Dave Reynolds estimates that this gives the company a 20% increase in its turnover capacity, since it frees up machine time.

DSI Talisman employs around 600 people and produces direct mail and corporate literature. This company is claimed to have the UK's largest JDF implementation, and originally moved to an automated workflow in order to control job data both between departments and for its website. An important goal was to be able to have all job information available at all times. The heart of the system is an Optimus MIS system that provides, via JDF, the links between business and print production systems.

According to Mr. Reynolds: "The efficiency benefits are already significant and we expect these to grow substantially over the coming months, as we implement JDF even further throughout the factory." He added: "The next step is to network our digital presses and then we will look at publishing live job information via a portal to the client base." The benefit is information and the company is evolving its management systems to maximise this. Dave Reynolds explains that "the amount of information we can generate through Optimus 2020 and JDF is enormous, but

you have to use that information wisely, or it can simply be a wasted exercise. For instance, Optimus 2020 provides automatic analysis of a range of areas, allowing us to quickly identify the most profitable and least profitable jobs, where we can reduce wastage, improve manning levels or increase throughput."

This is just a short selection of happy JDF users and their business propositions are very different. However they all recognise that their futures depend on process and service efficiency, and of course on automation. Automation requires a number of resources and most of these are incorporated at least conceptually into JDF. Most importantly the specification provides a common language for data communications that can be used throughout a print job's lifecycle. Functionally JDF is just the same as a conventional job ticket, but it is digital so it has far more scope to be useful to the whole enterprise. The same language that functions as a job ticket, also functions as a control language for systems and devices used in the print production workflow, and of course for constructing and managing electronic workflows. And this is what automation is all about.

Why Automate?

1. Do you have frequent job processing halts because information about the processing requirements is missing?

2. Do you spend too much time keeping customers informed about their job's progress?

3. Is job tracking a problem for you?

4. Would you prefer your prepress stages to be controlled by an integrated workflow management system?

5. Do you have difficulties identifying services you have provided and what they have cost you to produce a job?

6. Is administration taking too long because you use several different digital systems?

7. Do you have to record actual costing data manually and then enter it into your business systems later?

8. Are your staff spending too much time trying to troubleshoot problems caused through communication errors and lack of process optimisation?

9. Does your workflow lack the flexibility to accommodate changes to a job, such as the addition of pages or changes to covers or inserts?

10. Are you unable to keep track of machine status for CTP, press and finishing equipment?

11. Would your workflow be more efficient if you could use your estimating system to preset production parameters?

12. Is automatic rescheduling of jobs impossible because your system is too restricted?

If you answer "Yes" to any of these questions, it's time to consider automation and JDF.

– **Laurel Brunner**

Ipex – the last battleground of the DI?

Ipex is nearly upon us! This is our second show preview and it wraps up the output developments we have heard about over the last few weeks. There are a couple of fascinating trends coming into focus, most clearly new directions for digital printing: Heidelberg is ditching DI and Presstek is introducing a named DI press, so which is the right strategy? Does the combination of Fuji's superfast CTP and Komori's breakneck speed for on-press make-ready undermine arguments for DI, or is it about cost of investment and cost of ownership? According to Presstek CEO Ed Marino price premium of DI over conventional should be 10%. And where do digital presses fit in this scenario? Perhaps it all comes down not just to cost but to value per sheet?

Our initial inclination is that it's a matter of striking a balance between the two. This suggests that workflow and throughput requirements will be the determining factor for all output device investment planning. Hmmmm. We'll be pondering this over the next few weeks and will let you know what we think in our April issue. What of workflow in the pre-Ipex chat? Strangely unmentionable, neither Agfa, Canon, Fuji, Heidelberg or Screen will be drawn on what we should expect at Ipex. Now what could they possibly all be thinking of? We'll have a story on for you on this in our next issue. In the meantime, back to output.

Fuji is one of the world's leading developers and suppliers of digital plates and platesetters and its Graphic Systems slice of its Information Solutions division contributes $2.5 billion to Information Solutions 30% share of the company's annual $25 billion turnover. Got that? Fuji has a broad range of both violet and thermal technologies, and accounts for 30% of the worldwide market including plates and platesetters. CTP is still the Graphic Systems business's main earner, but Fuji is now expanding aggressively into inkjet printing, leveraging its Sericol division and the recent Avecia acquisition. Avecia develops and supplies high value dye and pigment inks. There are also plans to strengthen its Fuji Xerox business (the Xerox digital press technology is basically Fuji's technology) with a dedicated print on demand front end and a closer regional relationship with Xerox. It is not clear whether the front end technology is Fuji's own or an updated version of the Creo PODS technology developed for Xerox. Yet another shimmer of workflow mystique.

Apart from workflow about which no words can yet be spoken, the big news at Ipex will be CTP. In addition to its new line of high definition plates, Fuji is introducing a new flagship violet engine to go with the HD LP-NV2 and later Pro V. The V8 B1 device is fully automatic and avail- ▶

Stepping forward into the wild blue yonder. Fuji's blisteringly fast new violet V8 engine.

able in two versions and replaces for the V9600. Over 1500 of these are installed.

The High Definition (HD) V8 HD is a B1 engine for superior output quality without productivity compromise, according to Fuji. It can image 32 plates per hour at 2400 dpi. It is based on a new high precision imaging head with an optimised laser that removes noise in the beam profile. This results in better image reproduction, with less noise and fewer artifacts, better linearity and greater processing stability.

Tighter tolerances mean that, especially when used in conjunction with Fuji's new Brillia HD LP NV2 plate, a better dot profile is imaged for higher quality output, imaging FM screening dots with ease. When configured with its maximum of five cassettes, this platesetter can image 300 plates automatically and completely unattended. The very high quality output also provides improved on-press performance, with tighter processing latitude and greater stability overall.

The V8 HS is a twin headed B1 engine based on Fuji's traditional optics, imaging 50 plates per hour at 2400 dpi and 70 at 1200 dpi, for a 50% increase in productivity over the V9600. This high quality engine is on paper the fastest B1 machine on the market. It has a 60,000 rpm spinning mirror and twin laser optics, hence the speed. Fuji has also updated plate-loading technology so this engine can produce a set of four colour plates in 3.5 minutes, including processing! Both of these new engines will image Fuji's processless plate, the Brillia ProV, when it comes out next year. ProV is good for 200,000 impressions and can hold a 1–99% screen and FM dots. This will involve a simple field upgrade to change the laser from 60mW to the required strength for imaging Pro V plates efficiently.

Is this Fuji's Brillia HD LPNV2 or just another square of blueness?

Both of the V8 engines were developed in the UK, but pricing has not yet been announced. The HD model will be available by June 2006 and the HS by July. Fuji will be taking orders for these new engines at the show and will also have available its latest workflow developments.

Agfa is treating Ipex as both a commercial and a newspaper show. With its combined interests in newspaper plates and imaging, and workflow management Agfa is the dominant prepress supplier for newspaper systems worldwide and is launching a number of newspaper technologies at Ipex as well as technologies for commercial printing.

Agfa is introducing a new line of digital plates. The Energy is a general purpose 830 nm thermal plate that will be phased in from November to gradually replace the Thermostar P970. Energy is a stable thermal plate resistant to storage and transport variables so it is not sensitive to heat. This is a high contrast plate with an ablation level that Agfa claims is better than the norm. This means that processor maintenance is reduced and that there is wide on press latitude. The plate is rated for 150,000 impressions and over one million when baked. Resolution is rated at 1–99% for up to 200 lpi and FM screening.

There is also a high performance version of this technology coming out. Energy Marathon is designed for runs of over one million or more with baking. It is based on new graining technology which Agfa believes makes it the most robust plate on the market. Because of this combination of a dedicated substrate with the new Energy coating, the plate offers improved run length and lower frequency of blanket cleaning. It will be available in April.

Energy Elite is another premium plate. This non-bakeable plate has a special patented base layer beneath its thermally sensitised top layer that provides superior chemical resistance. Run length for Elite is around 350,000 impressions and the plate is compatible with UV inks, alcohol substitutes and aggressive press chemicals.

Agfa also has a new developer for Energy for clean processing with low replenishment rates. This chemistry will also work with the P970 plate. Energy Elite has its own developer.

There was no further information on violet processless, however Agfa now has some 600 Azura installations. This chemistry-free plate technology is suitable for printers using up to 10,000 square metres of plates per year.

Violet imaging on external drum VLF

Perhaps rather more exciting is Agfa's move to using violet imaging on an external drum VLF machine. The new Avalon LF-Violet engine uses a violet version of Agfa's HD Grating Light Valve thermal head. The 60 mW violet laser diode is not configured in an array, but instead is modulated into either 360 or 512 individual imaging beams to image 1200 or 2400 dpi. It could be configured with either single or multiple diode configurations.

This is the first machine of its kind. Imaging the external drum surface means that the head can be very close to the plate surface, with light travelling the minimum distance so it maintains cohesiveness to image very sharp dots. As far as we know this is also the first machine of its kind which is switchable to thermal and vice versa with just a head change. It has the scope to image a future violet processless plate, about which Agfa has made barely a whisper. At the moment the new engine is rated for use with Lithostar and N91V violet plates.

The machine can have up to 25 plates on line and will be available in three models: 20, 30, 40+ plates per hour. The latter will be available at the beginning 2007, but the 20 and 30 page versions will be available in the autumn. This technology replaces the Galileo engines which will continue to be available until the end of the year, as an entry level machine for this range.

Both Acento and Palladio have been reengineered and Agfa expects to ship its 1000th Palladio this year. The violet imaging Palladio II has 40% ▶

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speed increase and can now image 28 plates per hour at 1200 dpi. The thermal device, Acento II, has been redesigned to be more environmentally friendly with a new drum balancing system to support smaller plate sizes and a wider range of small press formats.

The latest version of Apogee X includes connectivity enhancements and options for integration into non-Agfa workflows. Version 3.0 is now in around 30 trial sites worldwide and over 3000 Apogee X systems have been sold since May 2003. Apogee's user base numbers around 20,000. Open Connect is a means of importing 1-bit TIFFs and DCS files into the workflow and Open Convert converts legacy formats such as CT/LW and TIFF/IT. There are also various new automation tools so that scripts, rules and conditional triggers can be used to automate job processing. Apogee X 3.0 can write PDF X files as well as JDF files. There is also enhanced JDF support, so that JDF can facilitate smoother transitions to MIS or to Agfa's Delano project management system.

Delano 2.6 is being shown at Ipex. This new version has a new web approval technology that will replace the Apogee X version. Web Approval 2.6 provides links to MIS and is designed for page approval via browser. It provides the tools for checking Apogee X soft proofs with an unlimited number of customer accounts and has optional streaming technology based proofing to provide high resolution page views. Delano is increasingly designed to manage multiple prepress environments, especially through JDF/JMF connectivity. Agfa has announced that it will customise this technology for newspaper applications.

There are also new tools to provide links to packaging workflows. Pack Essential simplifies interfaces between design software and output management tools, or can interface with existing packaging workflows. Also new for packaging is step and repeat integration in Apogee X 3.0, based on JDF based instructions coming from Esko's Plato system for packaging layout. Apogee X Pack Control is a new packaging solution that provides integrated proofing and workflow automation functionality specifically for packaging workflows.

On the newspaper front over 1500 Advantage platesetters have been installed for newspaper production since the technology's introduction at Ifra 2005. Agfa is showing the Advantage XM at Ipex. This manual machine images 85 plates per hour and supports multiple resolutions from 1000 to 2540 dpi, for any format to a maximum of 1040 x 690mm. Agfa has also rewritten its Intellitune X as a J2EEE application for distributed image processing. The new version of Intellitune is born of Agfa's Proimage division and is now in beta. It will be available this summer, and will be integrated into Intellisys for remote production tracking and data management.

Industrial inkjet is the future for Agfa and it is showing at Ipex the new inkjet press co-developed with Thieme. Agfa has 17 orders for the M Stream, six of them in the UK. The press is now in beta testing at SMP

Group in London where it is due to be operational by the beginning of April. In addition to M Stream Afga is showing two new Anapurna wide format machines. The XL prints a maximum print width of up to 2.5 metres and the L up to 1.6 m. Both are dual sheet printers imaging 363 x 725 dpi. The XL prints 30 prints per hour and costs €180,000 and the WL 22 per hour and costs €140,000.

A new version of the Dotrix is being shown. There is already a customer in the UK who has signed an order for four duplex versions of these engines. The new version is a modular second generation product that images 900 square metres per hour, with a 63 cm print width, printing four colour UV curable inkjet ink. It is also possible to integrate this digital UV device inline with traditional flexography. Dotrix Duplex has dual SPICE technology for double sided printing of around 500 A4 colour pages per minute. Five systems have been sold to a single customer in France who is using the engines to image one million transactional pages per day with a 100 per cent variable data IPDS driven workflow.
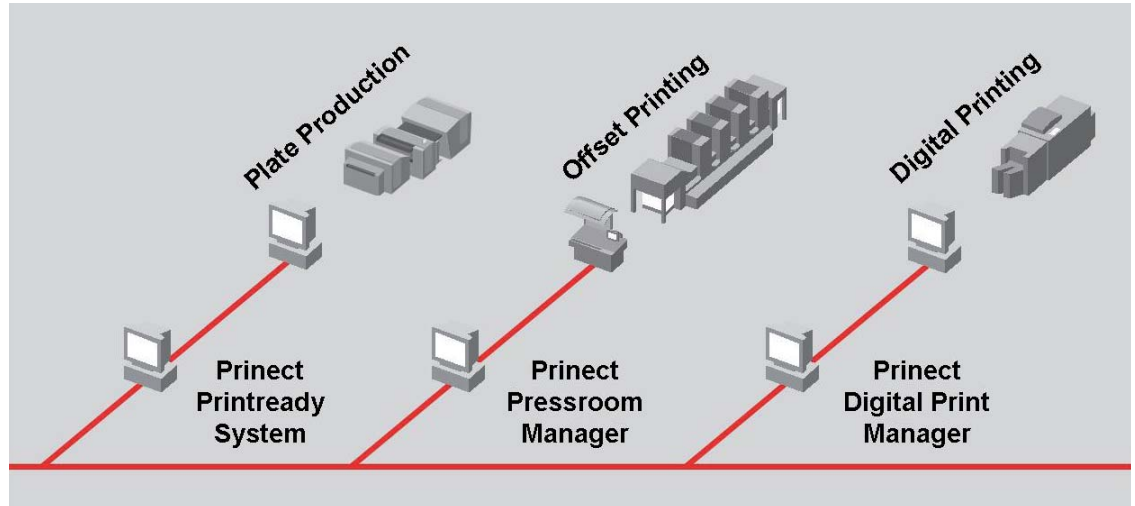
Pressing Their Advantages

Having abandoned digital printing to its competitors, dear old Heidelberg just pulled out of the Direct Imaging press business as well. There must be a weird sense of schizophrenia at Heidelberg between those who get the digital message, i e the Prinect, screening and JDF boffins, and those who do not, i e everyone else, right up to the very top of the company. Heidelberg believes it can offer better options to DI through enhanced press performance, particularly quality and getting up to colour quickly. They could well be right as to the shortcomings of DI, but they aren't when it comes to the money. Customers for these presses are not necessarily up for a lifelong commitment to the Heidelberg way, and Heidelberg with its high ticket overheads and sales habits are not going to be able to sell competing presses at a price its target customers will necessarily want to pay. Is Heidelberg making a mistake to turn away from DI? Apart from handing Presstek an upgrade market on a plate, probably not for Heidelberg. However turning away from customers who are prospects for digital printing in some form or another is probably not a wise strategy for the long term.

Anyway, at Ipex Heidelberg is introducing its Anicolor keyless inking system in order to get a press up to colour quicker. This is an anilox based inking system with no ink zones, to make it possible to achieve very short start-up using only about 10–20 sheets according to Heidelberg. Another benefit of the Anicolor inking system is that it should prevent ghosting, since the same amount of ink is applied at all times to the printing plate. Anicolor is an option to the SM 52 and will be available for all four colour models from the beginning of 2007. With Anicolor start up takes only 6.5 minutes, according to Heidelberg. It's not a waterless technology though, and given the very small rollers that appear to be involved, one wonders how the ink/water balance will be managed and how density will be controlled. Also there has been no word on the cost of this technology.
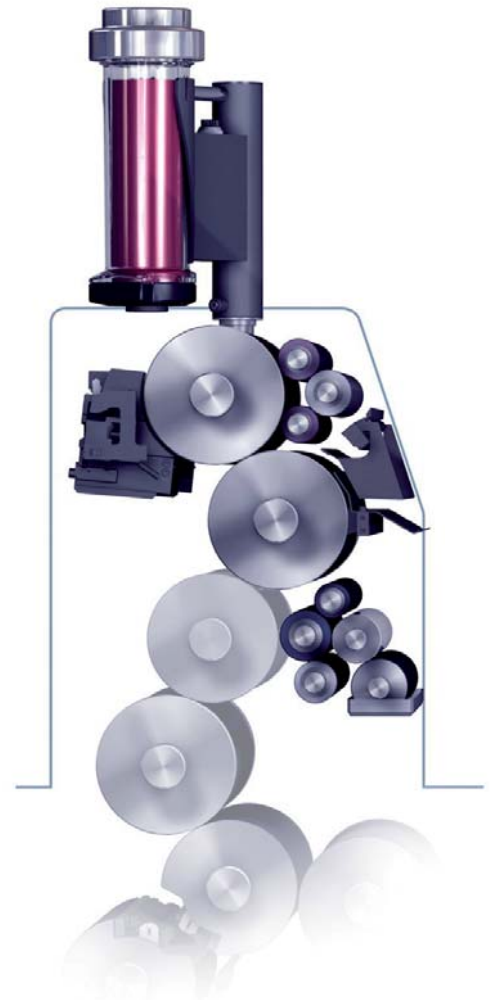
The new keyless inking system, Anicolor, on the Heidelberg SM52 makes it possible to achieve a start up using only 10-20 sheets.

But this is still not all from Heidelberg in regard to enhanced press control. For the bigger model presses, like the Speedmaster XL 105 and the Speedmaster CD 102 , the Prinect Inspection Control module, a version of Image Control, will be offered as an option. Using two high-resolution RGB cameras, the printed sheets can be inspected inline for errors like hickeys, missing print, striping and scratches as well as colour deviation, smudging and scumming. A bespoke Gretag Macbeth spectrophotometer resides in the press to measure colour in real time, so there are no pulls required. The technology provides continuous monitoring on press and according to Heidelberg has a payback period of less than one year. The technology complements Image Control (see Expandocs in Issue 8).

Integrated, output independent workflow management is what Prinect is all about.

Heidelberg will, among other new technologies, show its first B3 format ten unit Speeedmaster SM 52-10-P perfecting press. The SM52 press with Anicolor will be integrated in time for Drupa.
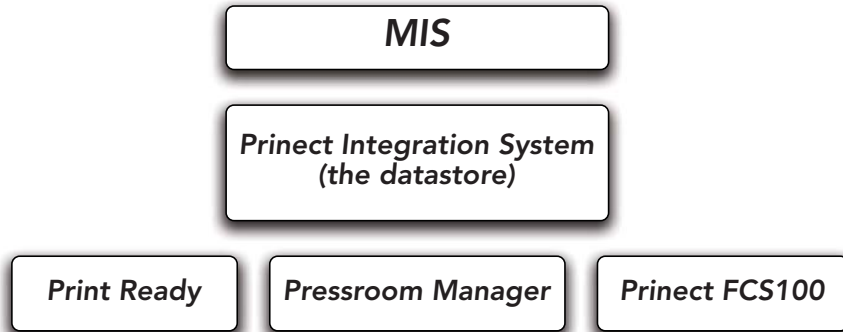
There are a couple of new platesetters as well: the A105 Suprasetter and Prosetter Performance VL. The new Suprasetter is based on existing Suprasetter technology and images eight to 15 plates per hour depending on size and resolution. It is for low end applications such as newcomers to CTP and the replacement 8-up market. The new Prosetter is a 60mW violet imaging engine OEM'd from Screen for formats from QM46 to XL105. Heidelberg has installed 1350 Prosetters worldwide.

Heidelberg's own Suprasetters can image the company's new Hybrid screen, capable of up to 400 lpi screening frequency, provided the RIP is upgraded to the new Metadimension version 6 which is also used in Prinect Print Ready workflow system. Prinect Stochastic Screening, which derives from Heidelberg Satin Screening, is based entirely on Heidelberg's own technology.

We may think Heidelberg's ideas about the short run market somewhat peculiar, but we were absolutely dazzled by the scope of the company's JDF strategy. Prinect is the only digital workflow system for printers that has the pieces to support all aspects of a production workflow chain, even those that are beyond the blue line of Heidelberg's horizons. This is about integration not just connection and Heidelberg has designed a JDF system architecture based on a single central job data store of JDF based data. Data comes into and goes out of this from and to prepress, press

and postpress and via this store to MIS, either Prinance, any other MIS or other subsidiary system.

This is the architecture:

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┌─────────────────────────────────────┐
│                MIS                   │
└─────────────────────────────────────┘
    ┌─────────────────────────────┐
    │  Prinect Integration System │
    │       (the datastore)       │
    └─────────────────────────────┘
┌──────────────┐ ┌──────────────────┐ ┌──────────────────┐
│  Print Ready │ │ Pressroom Manager│ │  Prinect FCS100  │
└──────────────┘ └──────────────────┘ └──────────────────┘
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This development is a major step forward for JDF. However it depends for success on everything moving to and from the database undergoing some sort of quality control procedure. The JDF data will need to be checked against some sort of target, and corrected or edited in some way for omissions or superfluity. Just as years ago Postscript needed to be checked for RIPability, and with PDF could be normalised and quality controlled to some sort of standard, so will it be with managing JDF data. Some sort of quality control process is needed to manage JDF files within the workflow to ensure they conform either to an ICS or other shared process determined convention. This work is underway at Heidelberg.

Other Heidelberg highlights include the Prinect Signa Station's support for direct JDF import from MIS without having full integration, better user rights management and tracking, and gang job production. There are also some enhancements to Print Ready and Metadimension such as support for object screening for mixed screens on the same sheet or page, and configurable PDF output that is adjustable to any third party device.

There is new hybrid workflow support through Prinect Digital Print Manager which feeds JDF job ticketed PDF files to the workflow system and RIP for output on press. Digital Print Manager manages output to plate and conventional press, or digital press and will connect digital presses from vendors such as Xerox and HP Indigo to a Prinect workflow.

Komori isn't a company that we would generally cover, however the current discussion about to go DI or not to go DI seems to centre on speed of make-ready. Komori have this very much in mind with the several new presses it is introducing at IPEX and for which it has built a new ultra modern press manufacturing plant in Tsukuba, Japan.

The biggest new heavy metal beast is the B1 Lithrone LS40SP, where SP stands for Super Perfector. The fully automated plate changing takes only five minutes for a ten unit press. Yowser.

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The other new models are the Lithrone S26 and S29, where a fully auto-mated plate changeover for four print units takes a mere 1.5 minutes. One minute later you should be up to colour, having wasted only some 20 to 30 sheets of paper. The KHS press control system has been enhanced to support this blisteringly fast make-ready, but blanket and roller cleaning are also faster, because of a technology that doesn't need solvents.

Presstek crosses the pond

Perhaps best known for their imaging heads and printing plates, Presstek is now making a move to act as a press manufacturer in its own right. Until now Presstek cooperated tightly with Ryobi and KBA on the one hand, and Kodak on the other, to sell DI presses, design by Presstek, but under the brand name of those partners. The new press will itself still be built by Ryobi, but carry the Presstek name. Presstek is growing up and leaving home.

The company's revenues are around $274 million (50% coming from con-sumables, 30% from equipment and the balance from service), but only 16% of that comes from Europe. To rectify this Presstek has reached out from its US base and set up a dedicated European office, and is strength-ening European channels to market and product offerings. Presstek is coming of age and having installed 65 DI presses in the fourth quarter of 2005 alone, is now in a financial position to really develop and support its brand. To that end Presstek is introducing a next generation Direct Imaging press technology.

The fully automated Presstek 52DI is the world's first landscape format two page 52cm B3 format, common impression cylinder direct imaging press. It will be shown at Ipex for the first time and has increased au-tomation and improved ink key technology and incorporates AB Dick's feeding technology. The Presstek 52 DI has the same V-shaped 5-cylinder design as the 34 DI and the KBA 74 Karat DI. This patented design is a triple diameter press with 16 ink zones across the sheet for better colour control. Ink profiles are set automatically when a job is RIPped and a pre-inking plate cylinder means the press comes up to colour quicker, within 20 sheets. Make-ready is fully automatic and unattended and the 52DI has a total make-ready of around nine minutes for the first saleable sheet. This includes a 2.5 minute plate wash and 4.5 minutes for plate imaging. As is the case with most Direct Imaging presses, the Presstek 52DI is ex-pected to be easy to use.

The 52DI is a waterless press that images 10,000 impressions per hour with the Presstek Profire Excel imaging head exposing 16 micron spots at a fixed resolution of 2540 dpi and up to 300 lpi. Presstek considers this sufficient to hold FM screens. There are 45 plates per roll of advanced Pearldry technology-based plate material and the top sheet size is 520 x 375 mm with a maximum print size of 510 x 360 mm. The 52DI im-ages and prints in landscape mode for inking efficiency and throughput. Ryobi manufactures the press and Presstek is supporting it. The cost is just under €500,000 and at Ipex Presstek will take orders for the new

The automatic plate change in the new Komori Lithrone LS29 takes only 1.5 minutes for a four unit press.

Presstek launch a new DI-press under their own name, the 52 DI. It's a landscape B3 format press capable of 10 000 copies per hour.

press, which is being sold both directly and via dealers, for delivery in the fourth quarter of this year.

Whew. For the rest see us at the show, or follow our blog, or maybe just dive under the duvet until it's all over. If not we'll see you in Brimingham.

– **Laurel Brunner**

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