Digital Dots

Spindrift

News Focus • Opinion
Reviews • Technology
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Psychotherapy • Fun

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...Intoxicating The Graphic Arts Industry Since April 2003

I think inkjet has big potential, but I do not believe that it will cause a fundamental change to the printing industry.

– Ursula Burns, CEO Xerox, speaking at drupa 2008

Dear Reader,

Wow, IPEX 2010 turned out to be an amazing show, a resounding success by any measure. All credit to organisers IIR, AD Communications who managed the public relations and marketing and of course the exhibitors who worked with IIR to get the traffic through the doors. With one day to go visitor attendance was just under 50,000 from 135 countries. This excludes some 20,000 exhibitors and associated hangers-on and over 500 international media bods. International visitors accounted for 48%, which is 8% more than in 2006.

One salesman we spoke to had made €140,000 of his €200,000 quarterly target during IPEX and one of the leading digital press companies was at 103% of target with three days of the show to go. One division of said company was at 150%! This level of success echoed throughout the halls, and everyone we spoke to felt that the industry was turning towards a future that will be brighter and more exciting than ever.

The show was amazing for the unexpected traffic, excitement and business it generated and everyone involved deserves due credit. We do have a couple of serious gripes, details of which are in our show coverage, but overall we doff our collective hats and bend a deep bow to IIR, AD Communications and the IPEX exhibitors for a class act.

As ever,

Laurel, Nessan, Paul and Todd

In This Issue

Colour management and proofing

For a supposedly mature technology, there was an awful lot happening in the colour management world at IPEX, as Paul Lindstrom found out.

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Tantalisingly close

Nessan Cleary spent most of IPEX looking at the new digital printers, including the latest round of high speed commercial inkjet machines. But there were also new toner-based devices and quite a few label presses to catch the eye.

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Webs and Tides

Advances in computer technology are becoming almost as important as the latest printer technology to the modern print shop, and so Laurel Brunner used IPEX to survey what's happening in the software world, and in particular web-to-print.

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Regular & Special

News Focus

Bitstream is to acquire the assets of web2print specialist Press-Sense for $6.5 million in cash and the assumption of liabilities related to deferred revenue. Bitstream will continue to support Press-Sense's existing customers and OEM partners, including the Indigo division of Hewlett-Packard, Océ and Xerox, all of whom private label Press-Sense software for distribution to their digital print customers and have expressed their support of the acquisition.

Shanghai Electric Group has taken up an option to acquire 100% of web offset press manufacturer Goss. SEG and its affiliates are one of the largest mechanical and electrical equipment manufacturing groups in China with 60 core manufacturing sites, more than 40,000 employees and 2009 revenues of $8.6 billion.

X-Rite has partnered with Kingstar, a leading Chinese developer of automated ink control consoles to make closed loop color management an affordable reality for small to mid-size printers in China. Kingstar has optimized its KICS remote ink control system to work with X-Rite's EasyTrax semi automated press-side colour scanning solution.

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GMG has formed a strategic partnership with the Yuncheng Plate Making Group in China - the biggest producer of gravure cylinders in China and the world. The group owns 76% market share in the Chinese gravure prepress market and also exports to customers in other countries. The agreement will cover the migration of the 300 existing digital proofing systems in use by all the companies in the Yuncheng group to the GMG ColorProof proofing solution. Apart from this, Yuncheng will also adopt GMG ProofControl as a quality control process to monitor digital proofs from all their manufacturing facilities.

Presstek launched its B2 75DI press at the IPEX show. This is essentially an offset press, with resolution of 2540 dpi and a 300 lpi screen ruling. However, digital data is sent direct to the press which writes the plates before printing. Makeready takes six minutes. The plates are chemistry-free and the printing itself is waterless.

Kodak has introduced a virtually invisible clear ink for its Nexpress printers, which is clear to the naked eye but fluoresces red when illuminated with an appropriate ultraviolet light source. This is for a wide range of security and inventory management applications, including certified documents, such as medical prescription pads, drivers' licenses and event tickets.

QuadTech has filed legal action in a Californian court against Q.I. Press Controls (QIPC) for infringement of QuadTech's U.S. Patent covering positioning of an imaging device. The founders and owners of QIPC are former QuadTech employees.

Four Pees has introduced DFlux, a modular automation solution that streamlines print and publishing both upstream at creation and downstream in production. It combines Enfocus automation tools with Callas PDF technologies. There are optional modules for colour standardisation, image optimisation and output automation.

Axaio Software, developer of solutions for output automation and content correction tools for the publishing and printing markets, has partnered together with Van Gennep, a developer of collaborative workflow systems

for the publishing industry. The two have produced MadeToPrint Auto for PlanSystem4 – an add-on for fast and easy automated output for publishers and their creative service departments.

The first European installation of **Kodak's** monochrome Prosper 1000 inkjet press will be French print service provider, SAGIM, which counts large French book publishers among its customer base, including Flammarion, Dunod, Grasset, PUF, Seuil, Gallimard and Odile Jacob.

Xerox has announced new finishing options for its Nuvera range of monochrome production printers. This includes a CP Bourg High Capacity Elevator; a Dual Xerox Tape Binder, which allows the print engine to utilise both finishers within the same job; and a Plockmatic Pro 30 Booklet Maker, an affordable 30-sheet booklet maker configured to produce professional-quality booklets at rated speed, including the option to add colour covers and inserts.

Service Point signed a deal during the EFI press conference at IPEX for the implementation of EFI Pace print management system and EFI Digital StoreFront web-to-print solution. These products will be installed in all Service Point locations and integrated with Fiery-driven digital print devices throughout the enterprise. Service Point, headquartered in Barcelona, Spain has 120 plants located in eight countries across Europe and the United States.

Fujifilm Dimatix has launched another addition to its Spectra brand of general-purpose, binary, drop-on-demand inkjet printheads with the introduction of the new Polaris PQ-512/35 AAA. It features a 512-jet design, new spot size capability, and aqueous ink support and delivers adjustable ink drop sizes of 35 to 80 picoliters. It joins a 15-picoliter model introduced earlier.

UK distributor **Digital Print Republic** is experimenting with a new distribution model, by making software available on a pay as you go basis. The service launched at IPEX with FileFix from TimeHarvest and DesignMerge from Meadows Publishing. Chris Baker, co-founder of the website, states, "Pay-as-you-go software offers digital printers added flexibility as they grow their businesses. We firmly believe this is the way software distribution is headed."

Kodak has opened a new factory in Goa, India. The new offset plate finishing and packaging operation joins the film, photo finishing and entertainment imaging services in Goa, and leverages the existing infrastructure to address the demands of the local market.

Inca Digital is to demonstrate its automation system for the Onset S20 for the first time at the upcoming Fespa show. The Onset S20 is a high volume large format printer that can produce up to 275 sqm/hr. The automation system gives users the ability to operate in manual, semi- or three-quarter automation from the same configuration. By adding automation to the Inca Onset S20 companies can boost productivity by up to 36% when compared with manual handling.

Mutoh has announced a new calender system, the UniFixer 65. Offering a working width of 1700 mm and operating speeds up to 64.7 lm/h, the high-capacity UniFixer 65 is suited for heat transfer and thermo-fixation applications, such as short to larger run production of indoor and outdoor banners and flags, promotional apparel and decorative fabrics.

Xennia has launched a range of inkjet modules designed to make inkjet implementation more straightforward for OEMs in key industrial applications such as ceramics, glass, textiles, packaging and product decoration. This includes the print engines, recirculating fluid controllers, print and application software and integration support.

Xennia has also bought Cametrics, a specialist in digital printing software. Xennia's existing print software module, XenJet Cygnus, is based around Cametrics' iXpressia PrintEngine product, which supports image input in standard file formats, ICC colour management, raster image processing (RIP), print swath generation and variable image elements.

In addition, Xennia has a brand new ink production facility and will be offering its own niche range of Xeninx, including UV, solvent and aqueous inks.

Barbieri has upgraded its Spectro LFP spectrophotometer aimed at the large format sector. The new third generation model boasts switchable measuring apertures of 8, 6 and 2mm and polarisation filters for 8, 6 and 2mm aperture, useful for the growing digital textiles market.

Manroland, together with ICS, has launched a version of its PressProof TC soft proofing technology specifically for the commercial printing pressroom. Already working in newspaper printing, the system is suitable for very large formats, can be retrofitted easily, and is available in different product configurations. The system can be connected to current prepress workflow systems and will accept multiple data formats from TIFF to PDF.

Ursula Burns has formally assumed the role of chairman of **Xerox,** succeeding Anne Mulcahy, having already taken over as CEO last summer. Mulcahy commented: "Ursula has the experience, judgment, passion, knowledge and tools to take this company forward."

Epson has gained certification from Pantone that its Stylus Pro 7900 and 9900 wide format printers can achieve 98 percent of the Pantone matching system.

Agfa has a new formulation of UV inks for its Anapurna M-series wide format printers. The G2 inks offer greater flexibility, useful for substrates that might stretch over time. They can be used with existing models.

ECRM has demonstrated a new version of its Mako 800 8-up platesetter at IPEX, with new optics for improved quality with violet plates.

Congratulations to **Glen Pack,** a Scottish packaging company based in Glasgow, which has won a competition to find the oldest working Manroland press. Glen Pack is still using a 1969 ROLAND Rekord RZK III to produce printed cartons.

News Analysis

Not so much an analysis this month, given that we're overloaded with news from IPEX, so instead this is rather more of a speculation piece.

Antonio Perez, chairman and CEO of Kodak, says that partnerships are the way to go. The key partnership at IPEX was the recently announced acquisition of Océ by Canon, though it's likely to be a few months before Canon properly evaluates how to integrate Océ within its operations, and which products to keep. However, given that there isn't really that much overlap between the two, we think the most likely option is that the different product lines will be given the same name so that they appear to be linked, so for example, Canon's light production printers could become part of the same line-up as Océ's commercial printers.

The arrangement between Canon and Océ leaves Konica Minolta in a difficult situation. For now, Konica Minolta has plugged the gap by taking on some of the Kodak Nexpress models, but this is at best a short-term arrangement.

Earlier this year Heidelberg announced that it was looking for a digital partner, and Bernard Schreier mentioned this several times in his opening speech at the IPEX press conference. Many analysts think that Xerox will ultimately emerge as Heidelberg's partner of choice, as the two companies already work together on workflow.

However, we feel that Kodak is a far more likely suitor because of the offset synergies between the two. But it's worth noting that Heidelberg has already partnered with Konica Minolta in Australia to resell its digital printers.

Manroland may yet merge, having tried twice to partner with other manufacturers. Negotiations with Heidelberg, and Wifag came to nothing. 2010 will be the year of mega-mergers, however the dice fall.

Did You Know?

Web-to-Print and MIS

If WtP (Web-to-Print) was the new buzzword at drupa 2008, it was a very common 'must have' offer on almost every stand at IPEX 2010. And rightfully so – by now any serious printer should have a strategy for how to integrate the Internet into everyday business communications, and at least some kind of solution that can be called WtP in place and in use.

Since there were so many new solutions called WtP presented at IPEX, it doesn't make much sense to even try to mention them all. A search in the IPEX database renders some 30-40 hits, and the names listed there only contain some of the names I actually saw and made a note of when cruising the isles back and forth during a whole week.

A good starting point when looking for a WtP-solution is probably asking your MIS vendor. Almost all the more well-known MIS offer a WtP module as an option, since it is by nature so tightly connected to the estimating and order procurement processes. It may not be called WtP – another common term is to offer an eCommerce option.

And when searching for a MIS, it might be a good idea to first look in the CIP4 JDF Marketplace guide, since you would probably want to connect both your MIS and WtP solution smoothly with your production RIP system. And the obvious connector is JDF or Job Definition Format. CIP4 could have celebrated the 10th anniversary for JDF at IPEX, but missed that opportunity to promote this quiet but useful metadata and control format. It's quite safe to enter into a JDF-connectivity project nowadays, since the format has proven its usability. The JDF Marketplace brochure can easily be found at the CIP4 website, and lists some 35-40 MIS members, of which at least half of them have either explicit WtP modules, or eCommerce options (which roughly should translate to the same thing).

In fact the idea of WtP is so mature with some vendors, that they have based their second generation MIS system on the customer experience, rather than of the internal workflow at a printer. The new MIS presented by Optimus at IPEX, the Optimus Dash, refreshes the existing modules with a new skin, making the user experience more friendly and effective than the old user interface.

Kodak with the InSite Storefront System, which is offered in three different ways, demonstrates another example of a slightly new approach. You can either buy it, rent it from a third party host, or rent it from Kodak directly.

We will come back to MIS, and possible WtP-integrations in Spindrift, at a later point. The IPEX show reconfirmed what we already knew – WtP is a "must have" for printers, call it an eCommerce, WtP, Web2Print or what you like!

Say What?

We generally refrain from commenting on the press facilities provided at shows and events. Some are better than others, and that's just the way it goes. And we appreciate that the organisers usually make an effort, and the rest is up to us.

Nonetheless, the press facilities at IPEX were diabolical. It's true to say that the NEC has never had much in the way of a press centre, but putting a table in an open space at the top of a staircase is not enough to remedy that. These days journalists need to file stories quickly and that means having access to a wireless network. Anyone who is working in PR and doesn't understand that should seriously reconsider if they've made the right career choice. Instead the Wi-Fi access for the first couple of days was so limited as to be useless.

This matters because vendors are charged an enormous sum to exhibit at IPEX, and one of the things they expect is a reasonable chance to be able to email press releases, and to gain publicity for the products they launch, none of which happens if you strangle the ways that journalists communicate with the outside world.

We won't mention the food, or complete lack of it, other than to say that even selling sandwiches would have been a step in the right direction.

We at Digital Dots are seriously considering planning our own press centre for the next show. I mean, how hard can it be to set up shop in a nearby bar? We'll provide our own wireless and invite vendors to come and talk to us about their products, and we won't charge them for the privilege – though we might let them buy the beers.

GreenWash

Despite the overall success of this year's IPEX, we do have a few serious criticisms of the NEC where IPEX was held, IIR, which owns and organises the show, and AD Communications, which handles the public relations. The most egregious of these was the total lack of any positive messaging to remind people that print is the only truly sustainable medium.

However IPEX and its midwives are at least not guilty of greenwashing, unlike the following examples:

Xerox has claimed that its new inkjet press saves 2,000 trees per year. The press release says: "The technology can produce up to 500 feet, or 152.4 metres, per minute – on lighter weight papers, saving print providers money and conserving an estimated 2,000 trees per year." This has to take the prize for the most meaningless and disingenuous claim ever!

But Haybrooke Associates aren't far behind with its claim for the PDQ (an English acronym that means Pretty Damned Quick) MIS: "PDQ also incorporates a built-in carbon footprint analyser to show the user the carbon footprint of each component and the resulting total CO_2 emissions of each job, which may be a key enabler to attracting new business from environmentally focused print buyers." No way can this data be accurate, and no way should any printer fall for it!

IPEX Top 10

The international audience was obviously the biggest hit of IPEX 2010 for the organisers and their exhibitor customers. The majority of the 48% of overseas traffic came from France, Germany, and the Netherlands but their cohorts in print came in higher numbers from Eastern Europe, the Middle East and Africa, China and India. 77% of visitors were budget owners.

So what did they see that got their fingers twitching? We put together our top ten list, in no particular order, though we did agree that the T200 deserved to be at the top.

HP T200

The T200 is a further development of the T300, of which HP now has nine installed around the world. But the T300 is a high volume machine, and there are a limited number of companies that have the volume of work to fill it, and

to justify the cost. So the T200 makes a lot of sense, and given the success of the T300, we're sure that we're going to see a lot of these installed when they're fully available at the end of the year.

The T200 uses the same thermal drop on demand printheads, ink system and bonding agent as the T300. But it's primarily aimed at replacing monochrome printers and so two of its printbars are purely for black inks, with one for yellow and a fourth for both magenta and cyan. All in all, it's a sensible extension of the proven HP line-up.

Kodak Stream Continuous inkjet

Kodak has developed its continuous inkjet technology with the new Stream printheads, sold both as standalone heads for integration into other machines, and also built into the Prosper range of presses. Continuous inkjet is very fast by its nature and the Prosper will run at 200 metres per minute, with a resolution greater than 600 x 600 dpi.

As well as the printheads, the Stream technology also includes water-based inks with nano particles, and a precoating for the paper, which is essentially a saline solution. Kodak has also signed deals with ten paper mills to add the precoating to some papers at the point of manufacture. We think this is going to offer HP a real run for its money.

Fujifilm JetPress 720

Fujifilm has boldly tackled the offset market head on with its B2 sheetfed inkjet press. The press is based on an offset chassis (a Ryobi) so that it seems very solid. It uses Dimatix Samba printheads, which deliver resolution of 1200 x 1200 dpi, with four variable dot sizes.

When the paper is pulled into the press it is first treated with a precoating fluid, before being dried. The water-based inks contain an anti-coagulant to stop it spreading across the sheet, and there are several more drying systems to ensure sheets emerge from the press fully dry. This system has already been certified by Ingede for de-inking.

It handles any kind of uncoated offset paper, from 100 to 300gsm. The press runs at 2,700 B2 sheets per hour, or around 180 A4 pages per minute. It's a simplex machine with Fujifilm expecting users to work and turn sheets for duplexing.

Screen Truepress Jet SX

Screen's Truepress Jet 520, which debuted at the last IPEX, kickstarted the transpromo inkjet printing market. This time around, Screen demonstrated the Truepress Jet SX, a high quality 1440dpi inkjet machine. Like the Jetpress 720, this is a B2 sheetfed machine, but there the similarities end. It's a duplex machine that runs at 1620 sheets or 108 A4 simplex pages per hour – the speed halves for duplex. It uses aqueous inks, but instead of a precoater, it applies a sealant after laying down the image. Crucially it can print on any offset stocks.

Xerox Inkjet Web Press

In the twelve years since Xerox acquired Tektronix and its hot melt Phaser piezo-electric inkjet printing technology, Xerox has had very little to say about inkjet. There was however an announcement at drupa in 2008 about the company's plans for the Phaser technology, and at IPEX we got to see a live working model. The principle is simple: at room temperature the ink is solid, but heat it up and it becomes highly viscous, so much so that it can be jetted accurately onto any surface. It solidifies immediately into well-formed and teensy dots for 600 x 600 dpi printing.

The new press uses the iGen4's image density control and can print onto uncoated substrates from 45 to 160 gsm at 152 metres per minute across a 520cm (two-up) web. There is a coating unit which presses the ink into the substrate surface, making it shinier, depending on the roller pressure. The technology can print onto much thicker materials, go a lot faster and wider. There is also work being done to further refine the printing head technology. Expect something much more at drupa after this machine has been in the field and more thoroughly tested. It goes into beta testing at customer sites later this year, with commercial availability next year and will cost around €1.5 million.

Xeikon metallic inks

Xeikon is one of the original inventors of the digital colour press, having presented its first machine at IPEX

1993, alongside Indigo. Both engines are toner-based, which means they use electrophotography to lay down colourants. This means that metallic toners are a bit of a no go area for these presses, because metallic toners don't behave too well when subjected to static electricity. In order to meet its customers' demands for metallic effects, Xeikon has come up with a novel way of overcoming the problem of conductivity in the toners.

They print onto a metallised surface, using an undercoat of white ink to cover the page, apart from the bits of the page that are supposed to appear metallic. It's a clever approach and the effects are perfectly convincing.

Quato 700

Quato has created a breakthrough on the monitor market by presenting a proofing monitor with 700 cd/m2 brightness. This is about twice the brightness of other products on the market, and means that for the first time in history you can successfully place a monitor inside the viewing booth and compare hardcopy proof or final prints with the digital document! A "must see" product (as well as "I want to have it"device)!

Scodix

We got a look at this company last year on a trip to Israel and were impressed with the concept of a UV embossing press. The press (a flavour of HP Indigo, we think) has an additional unit for the Scodix clear ink, and creates embossing effects onto prints from either conventional or digital engines.

The Scodix 1200 press embosses and coats selective areas with either gloss or matte coatings, which are then cured with UV lamps. The toner expands to a thickness of up to 70 microns to add depth and texture to images and text. The Scodink toner is also environmentally friendly since there's no set-up waste, VOCs or chemical processing involved.

A variable data embossing option means that the spot coating can be applied selectively during the print run. After the page is UV-cured the coating expands to create the appearance of embossing. The effect with the Scodix method looks exactly the same as one would achieve using conventional technology but is cheaper and more convenient. It can also work on conventional print passed through the press without imaging except by the coating unit.

Agfa Apogee Impose

This latest module for the ever impressive Apogee Suite takes imposition one step closer to less knowledgeable users, without risking the chaos that might be close on their heels.

Apogee Impose is one of several enhancements to Apogee and works with both the platemaker and preflight clients. It has direct support for various proofers and digital presses, as well as for Fiery and Fiery Link front ends that drive Xerox Docutechs. Agfa has updated the Normaliser and is working now with SQL08 instead of SQL05. It has full support for APPE 2.5 and there is a host of other details which we will cover later this year.

What makes this product especially interesting is that it takes the template idea widely used for imposition and puts rules behind it. The idea is that any user can work with it, regardless of expertise. It has a simple and clear user interface that borrows from standard browser concepts, to reduce user learning curves. It uses CIP4 folding schemes and can scale pages up and down, scaling the page content accordingly. There are controls to make sure that schemes and numbering sequences can actually be made up and there is complete manual control for the professionals. Particularly impressive are the creep, shingling and bottling controls which, among other things, make sure that centre spreads aren't distorted. Apogee Impose is due for release in October.

Alwan Print Optimizer

Alwan has once again proven that it understands ISO-based colour management and process control in depth. With the Alwan Print Optimizer the prepress or press operator can check that both calibration and production is fully compliant according to, for example, the ISO 12647-2 printing standard, whether using the Fogra methodology or the US GRACoL way of doing things. Complex tasks are made simple thanks to a clear and user friendly interface. Impressive indeed.

Ipagsa Klasse NPN

Choosing a plate as a star of IPEX might suggest a bit of a loss of perspective. But the Ipagsa Klasse NPN plate gives plate buyers more than a mere alternative to the big three. Small players survive on the excellence of their service and of their technology. The new plate is chemistry-free, suitable for runs of up to 100,000. It's got the specifications and performance to give plate buyers a viable alternative to anonymous contracts and shifting supplier relationships.

Best of all the Klasse NPN works with Ipagsa deletion pens (wide, medium and fine point) for those really, really last minute corrections.

... Could Do Better

Inevitably there are some dogs at any trade show. We are loathe to point too many fingers: after all, everyone starts somewhere. However we do have one serious criticism we simply have to make, the flaw in an otherwise beautiful show.

IPEX was a fantastic opportunity to remind the world just how sustainable print really is. And yet nary a recycling bin was to be seen apart from occasional small trashcans in the lobbies but not in the halls where all the discarded print was. At the back of the NEC where all the rubbish and waste gets squirreled away from the public's prying eyes, there were no dedicated skips for wood, plastic, paper or glass. It's shameful given the amount of rubbish a big trade show generates that the NEC makes no provision for either recycling, or freecycling to allow local citizens and businesses to make off with stuff they might want to use, such as wooden pallets.

IIR could have made a huge difference with this, even if it was only to pressure the NEC to segregate exhibitors' waste. They could have done a great deal more in the halls to at least provide large paper recycling bins for waste from presses and printers. Plastic and glass receptacles would also have helped to improve the industry's image.

Despite a couple of direct pleas to the organisers to provide paper recycling facilities at the very least in the press office, there were none. Worse, the journalists were offered tea, coffee and water in plastic and paper cups, which could easily have been recycled. Perhaps this makes up for the fact that the meagre and mediocre sustenance provided (if coffee and tea count as such) was so dreadful: only the desperate partook of the rancid coffee and tepid tap water offered to the press. The perfect approach to waste reduction perhaps, but it meant that journalists spent time queuing for food and drink instead of publicising IPEX which was what they were there for.

Next time let's hope a more coherent environmental approach, and at least some loud and proud signage from the organisers. Print is worth celebrating and this message needs screaming, especially at industry trade shows.

Green Shoots

Heidelberg is selling an offsetting package with new presses, and purchased offsets for its entire IPEX carbon footprint. There was no detail about how the footprint was calculated, so we'll have to come back to that one at a later date.

The company has also produced a booklet explaining how businesses can cut their CO^2 emissions. Most of it recommends Heidelberg products, but it's useful nonetheless. Manroland has got something similar. It isn't nearly so complete, but it's worth a look.

Carsten Knudson, CEO of *EskoArtwork*, is the first graphic arts industry CEO to fully appreciate the problem when it comes to developing a standard for the carbon footprint of media: "I believe there should be a standard way of managing data. Without it there's no way to measure a carbon footprint". Maybe this is something for JDF?

Epson has introduced new biodegradeable substrates for wide format printers. The new range of substrates is called Biomedia and includes papers suitable for litho and digital presses, display, banner, rigid, laminate and lucent materials. They contain special enzymes to help the media rapidly biodegrade, once it is in landfill or a composter. Fortunately the enzymes only degrade the material under these circumstances.

Ricoh's environmental honcho at IPEX gathered up the prints produced at the show to demonstrate different applications. His plan was to use the waste material to create sample sets for distribution to the Ricoh Infoprint sales force and for prospective Ricoh print system customers.

UPM has invested €1 billion into renewable energy over the last few years, and continues to do so. The company recovered over three million tonnes of paper this year and has reduced its carbon emissions by over 40% since 1990. Over 60% of energy used in UPM plants comes from biofuels.

The Digital Print Deinking Alliance (DPDA) has presented findings on the deinkability of inkjet printed papers. The paper was presented at the Centre Technique du Papier's recent Deinking Symposium in Munich, to present the results of the organisation's study into deinking. Inkjet prints were successfully deinked in a procedure designed to replicate a typical European mixed grade waste paper recycling system.

Heroes & Zeros

Hero

There's no question about this month's hero. It has to be David Preskett, Canon's European marketing director. He's now president of IPEX 2014 and is the first IPEX president coming from the digital side of the business. He's also got youth on his side, plus experience of all things analogue in print and has worked on an international scale for several years. He's also been central to Canon's success in establishing itself as a serious contender for the production print market.

Preskett's appointment reflects the changing character of the printing industry, with digital technologies now touching print and prepress in all its forms. He's going to be a great ambassador for the industry and for IPEX, taking print's message to new markets, producers and buyers. Well done!

Zero

Highwater CTP Limited, a developer which bought Highwater UK after it went into administration, is apparently using Highwater's Torrent RIP brand name without permission. Global Graphics has requested that the company stop doing so because it's creating a false impression that the company's RIP, which is in fact based on Jaws, is based on the much more muscular Harlequin technology.

An Interview

Hanging around the Kodak stand at IPEX, just after Kodak's press conference, we bumped into Antonio Perez, chairman and CEO and Kodak and managed to ask him a few questions.

We started off by asking about Kodak's print practice consultancy. Perez explains: "The idea is to go and see customers and see what their problems are and it's by and large about understanding the business model that they

have. We have experts that analyse the business model of a customer, what applications they have, their equipment and then we offer them our solution."

We wondered if Kodak is investigating delivering its software as a service? He replied: "Some customers are not ready for SaaS and there are more sophisticated customers that are ready for it. Smaller printers tend to stay away from recurring payments so for these we will have to sell a package and then send another package when they upgrade. More sophisticated customers know that it's the way to go with a package that we will support."

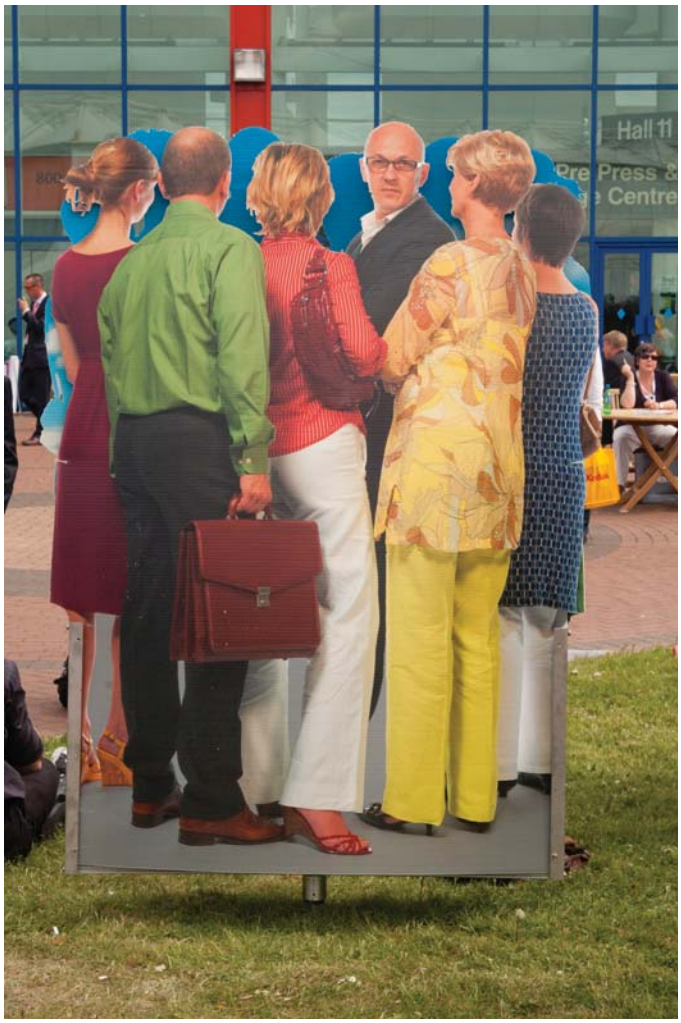
Some of Kodak's workflow software appears to be aimed at brand managers and marketers, as much as it is at printers. Is Kodak looking beyond printers? Perez tells us: "Print is just part of a whole package and that is why we have Design to Launch. It's software and a marketing technology that will help people to look at a marketing campaign from the total point of view and I think that most of the more sophisticated printers will move into marketing consultants."

Kodak has talked about its Prosper press as having 'offset-like' quality, but does this mean that Kodak is actively seeking to replace offset presses with its Prosper printers? Perez points out that Kodak also has a stake in the offset world, saying: "Ninety-five per cent of all pages are still printed offset and our grandchildren will still be using offset. It's perfect for certain applications. It's not up to shorter runs and variable data. We have customers that buy a lot of our plates and they are also looking at Prosper. We see this as a hybrid system so we don't see them as competing technologies. In fact for our Prosper we have a lot of orders and we have our digital plates that are still growing."

We couldn't resist asking Perez if he was interested in partnering with Heidelberg. Diplomatically, he told us: "Heidelberg is a great company and we have a great relationship with Heidelberg but whether it will expand only time will tell. But we have a long history of working with Heidelberg." Then he added: "I think that partnerships are the way to go."

Picture This

In the end, IPEX 2010 turned out to be resounding success, with plenty of visitors and a real buzz about the halls. But, leaving nothing to chance, the organisers had clearly come up with a back-up plan, with these life-size printed crowds dotted around the entranceway.



Before anyone writes in, we know that Agfa printed these, but we're still not sure why.

Colour Management and Proofing

While you might think that colour management should be a mature and stable technology by now, 17 years after the creation of the International Color Consortium (ICC), IPEX proved that there is still a lot of activity and progress in the field.

X-Rite unveiled the successor of ProfileMaker by previewing iOne Profiler. This explains why there haven't been any upgrades to ProfileMaker in the last three years– X-Rite has pooled much of its R&D software resources into this new solution. Using a new colour engine called i1Prism, the profiles render images with higher details in both highlights and deep shadows. The samples we saw looked promising.

Unlike with the ProfileMaker suite, all functions can be found in one single software program, with a completely new user interface. X-Rite themselves say that they have brought the best from the three existing profiling solutions – the control software for ColorMunki, Monaco Profiler and ProfileMaker. X-Rite stated that as well as being capable of creating ICC-based profiles, iOneProfiler is able to create the new types of colour profiles for Microsoft Windows Vista and Windows 7.

Complementing this new profiling package is also the colour library Pantone Link. More tangible products are a suite of colour guides for the classic Pantone Matching System (not the relatively new Goe System), but arranged in a different way than the old Color Guides. This new series is called Pantone Plus and is arranged in a "chromatic arrangement of colours", together with metallics and a broader range of neons.

Alwan demonstrated the Print Standardizer, once again proving that it understands ISO-based colour management and process control in depth. The printer can check that both calibration and production are fully compliant according to, for example, the ISO 12647-2 printing standard, whether using the Fogra methodology or the US GRACoL way to do things. Complex tasks are made simple thanks to a clear and user-friendly interface. If the user wants to optimise the printing results, increase printability and perhaps save ink, the CMYK Optimizer can be set to work in tandem with Print Optimizer.

CGS used the term Hybrid Proofing to describe their latest portfolio of products in the Oris series. The Oris Certified Suite contains solutions for both softproofing, hardcopy proofing and press optimisation. And all in respect of acknowledged standards, hence 'Certified' in the name. Hybrid Proofing means both monitor based softproofing and hardcopy proofs.

The new Oris Approve is an "interactive web-based collaborative approval tool". The Oris Press Matcher has been expanded with a web interface so that all output devices can be both quality managed and colour managed in a centralised way. This includes both conventional offset presses and digital productions presses, as well as large format devices.

CGS had developed part of the Taskero Quality Management system that Fujifilm launched at drupa two years ago. CGS will now market and sell this under its own name. Part of the solution is Oris Ink Saver which besides saving ink, toner and solvents also reduces paper waste.

Epson have had a great success with the Epson Stylus Pro WT7900, where the letter W stands for White ink. This is very useful, particularly with packaging proofing workflows. For flexo proofing Epson cooperates with, among others, GMG to offer screen dot accurate proofs.

Four Pees, which act as an umbrella for several software solutions, presented the DFlux workflow solution. While the modules in DFlux can be bought separately from the vendors Axaio, Callas, Elpical and Enfocus, the idea with DFlux is to offer the integration and installation training for those modules so the user quickly gets into production. DFlux offers automated PDF generation, preflight and colour management. And image enhancement in an early

Four Pees, led by CEO Tom Piere, presented DFlux – a collection of workflow- and quality management tools in one modular package.

stage if you include the Elpical Claro image analysis and optimisation software.

GMG presented the online proofing service called Proofr (yes, that's not a spelling mistake). The idea is to link together those GMG customers worldwide that can produce certified proofs on behalf of clients. In this way, for example, an Ad Agency doesn't need to courier proofs across the world but simply looks for the nearest local GMG approved 'proof provider', to have the proofs made locally. The service hasn't started yet, but a website is set up and will go live shortly. Quite a clever idea we must admit!

Other news from GMG is new or renewed partnerships, for example with X-Rite, who will brand the GMG Print Control software as the X-Rite PressOptimizer. Another strategic partnership is the one with Sun Chemicals, to build a colour database for ink behaviour on many different substrates. This could be very useful, especially for packaging printers who struggle daily to reproduce correct spot colours on all kind of substrates.

Sun Chemical already cooperates with Esko on this, and with the close cooperation GMG has with X-Rite, we can expect some crossover effects, which will add positively, we hope, to the quality of such an ink/colour database. The database will use the X-Rite colour data format CxF, recently suggested to be included in the ISO standards, but goes beyond what CxF can carry at the moment. The colour database uses what is called the Sun SmartColour Engine, already containing over 250,000 so called "identities".

From Gti (Graphic Technology Inc) we learned that a high Color Rendering Index in the lamps in a viewing booth doesn't necessarily mean an excellent colour presentation. It's apparently possible to 'cheat' when manufacturing fluorescent tubes (no names mentioned) to push the CRI value up, and still have a quite poor or spiky spectral curve for the generated light. Better to have a reasonably high CRI index (the ISO 3664 standard states that it shall at least be above 90, where a value of 100 would be a perfect match to natural daylight) and a good overall spectral distribution. This is, of course, what Gti choose in their viewing cabinets.

Kodak has further developed the Insite Creative Workflow with the Smart review System. This allows colour managed monitor softproofing as well as session control including logging the activities, events and annotations. Matchprint Virtual is still a core part of this, and approved proofs can automatically be handed over downstream to the prepress department.

ColorFlow Quality Management is an obvious companion to this, and can be bought as a stand-alone application or integrated to the Prinergy RIP System. Besides keeping track of all vital colour-related settings, ColorFlow can perform ink optimisation and spot colour replacement.

Mellow Colour now operates worldwide and helps printers print according to defined standards, both through consulting, but also by installing the PrintSpec software suite. Step-by-step both proofers and presses are calibrated and optimised to the printing standard of choice.

Mellow Colour is UK-based, and for the local market they have quickly added a feature to PrintSpec that guides the user to check conformance to the recently published BPIF

(British Printers International Federation) ISO 12647-2 certification scheme. This is not only about colour management, because the BPIF certification scheme does not only concern itself with ISO 12647-2 related matters. It also involves some core ISO 9001 quality management aspects, looking at the whole print production process, including viewing conditions, document assessment (preflight according to PDF/X), soft- and hardcopy proofing, platemaking and, of course, printing, including controlling the variation over the whole print run.

And add to that control over error handling and (worst case) customer complaints. So if a printer thinks they are ready to be certified according to this extended ISO 12647-2 standard, Mellow Colour with PrintSpec can assess if there is a gap between the present work practices and print quality, and what is specified in the ISO standard.

Mimaki cooperates with GMG on proofing solutions, and demonstrated how the Mimaki UJF 706 UV-printer can be used for mock-up production in, for example, packaging proofing workflows.

Roland also cooperates with GMG, and demonstrated how the Roland VersaUV LEC-330 large format printer can print on virtually any substrate, be it aluminium, fabric, foil, leather, paper or plastic. The printer can even simulate crocodile skin (we are sure the crocodiles will appreciate that hugely).

Quato caused a splash on the monitor market by presenting a proofing monitor with 700 cd/m^2 brightness. This is about twice the brightness of other products on the market, and means that for the first time in history you can successfully place a monitor inside the viewing booth and compare hardcopy proof or final prints with the digital document! The monitor is called ProofView 700, and will be sold at about €3000.

It contains a Hitachi S-IPS panel normally meant for industrial use, such as digital X-ray image evaluation, and high intensity CCFL fluoresent tubes for back-lit illumination. The ProofView passes the Udact monitor certification test tool (yes, we have tested a pre-launch model, and will come back with a full review). This means it's compliant with the ISO 12646 standard for monitor based softproofing in accordance with hardcopy proofing for ISO 12647-compliant printing.

The Quato ProofView 700 monitor has about twice the brightness of other LCD monitors, 700 cd/m^2. This means it can be placed side by side, or even inside, a viewing booth, and create the same appearance on the softproofs, as for the hardcopy proofs or final prints viewed in the booth.

Verivide is a manufacturer of colour assessment cabinets (verivide is Latin and can roughly be translated as "see in truth"), and among the new products is the Fenestra proofing cabinet. It has an angled illumination which gives consistent light over the whole proof or print, eliminating light banding. It can mimic specular reflection – gloss papers appear as matte. It has a suction deck to hold the proof which also helps keep the surface flat and reduces the risk of stray reflections, and there are no sharp corners inside the booth, which also helps to reduce the possibility of reflections.

The booth and the D50 lamps together are, of course, an ISO 3664-compliant viewing system. The latest version of ISO 3664 standard suggests that the booth should be able

to switch the light intensity between the ideal 2000 lux to a reduced level to match that of a standard LCD monitor, at around 600 lux (however, as you have read earlier about the new monitor from Quato, with that technology you actually don't need to reduce the brightness in the viewing booth).

The Fenestra viewing booth from Verivide complies to the latest version of the ISO 3664 standard for viewing booths. It means it can easily be set to switch between the full brightness of about 2000 lux, and an adjusted brightness for the softproofing monitor at hand. Often this means you need to go down to about 600 lux.

The viewing booth from Verivide was developed in cooperation with the scientists at the London College of Communications, especially Phil Green, PhD in colour science and technical secretary for the ICC. He's also an expert in the technical committee for ISO standards for graphic arts production – all in all it bodes well for the quality of the Verivide products.

This is just a glimpse of all the colour management related news that could be seen at IPEX – unfortunately we probably have missed some – but we believe it proves that there is still room for a lot of improvements in this field.

– Paul Lindström

Tantalisingly close

Right from the start IPEX 2010 was billed as being an inkjet show, with the promise of seeing production versions of the high speed inkjet printers that were shown in prototype form at the last drupa.

Walking through the NEC halls for this year's IPEX there was a definite buzz throughout the show but that buzz was far louder around the digital printing areas. It is clear that we are witnessing a major change in the printing industry, both in terms of the technology available to printers, but also in the way that we think about print.

The technology is obvious in the shape of the new high speed inkjet printers that were being demonstrated throughout the digital halls. But these printers also crystallise the way that print is changing, with a greater number of short run jobs, increased use of colour, and with publishers and marketers looking for a more targeted approach. Also, customers are more concerned about cutting down on waste, and with measuring their costs, and the returns from each campaign.

All of these things play up to the strengths of digital printing, with the new inkjet presses offering full colour variable data, as well as low consumable costs and the ability to economically handle longer runs with a reasonable level of print quality. Or so we hope, because none of the vendors were willing to discuss fully prices for the presses or their inks and running costs. And none of the machines are available quite yet, though most should be in beta testing later this summer with commercial sales at the start of next year. So it is difficult to draw proper conclusions about these machines, but it is clear from the crowds surrounding them that there is a certain level of market interest in them.

One of the stars of the show was unquestionably HP's baby inkjet, the T200, a scaled down version of the T300. HP has squeezed duplex printing into a single engine capable of printing a 521mm width. It has two sets of printheads, with the paper following an unusual path, from one set of heads, through a turnbar and then onto the next set of heads, exiting through the top of the printer in a bid to reduce its footprint. Product marketing manager Mike Neuffer says that it has been designed specifically to replace monochrome electrophotographic printers.

It uses the same type of thermal drop on demand printheads as the T300 and the same imaging system, though with only five print modules per print bar. As with the T300, it uses bonding agent to precoat substrates and will consequently print to the same range of media, including uncoated offset, from 40 to 250gsm. Print resolution is 1200 x 600 dpi. HP also announced that a number of paper mills have agreed to produce its ColorPro papers, which are already treated with the bonding agent

HP's T200 is aimed mainly at monochrome applications such as book printing, but has the ability to do colour when needed.

It will print in colour, though the speed drops from 121 metres per minute for black and white to 60 mpm for colour. Predictably there is no pricing for it yet, though consumables costs should be similar to the T300. HP says that it will handle up to 50 million mono and 25m four colour A4 duplex pages per month.

The main competition to the HP line-up is likely to come from Kodak's Prosper press. At IPEX, Kodak showed off the four colour Prosper 5000XL, but there is also a monochrome version, the Prosper 1000. Users can start with the black and white machine and add the colour heads later to upgrade to a 5000XL.

The Prosper press uses Kodak's Stream continuous inkjet technology, which we've already covered in previous

issues. The press runs at 200 metres per minute. Kodak won't confirm the resolution but we believe that it's 600 x 900dpi. Kodak does quote image quality of up to 175lpi, though it turns out to be in the range of 135 to 175lpi, dependent on various factors, including paper choice.

On the paper front, Kodak has struck deals with 10 paper mills to make a range of papers available, including coated, uncoated and glossy stocks. Kodak is also planning to add a pre-coating unit to the press so that it should be possible to use most available papers, similar to HP's strategy with its ColorPro papers.

All of the inkjet presses attracted a big crowd, such as these visitors watching Steve Cookman, product manager for Fujifilm UK demonstrating the Jetpress 720.

Kodak also sells the Stream heads separately for other vendors to integrate them into their own lines, albeit with a lower 600 x 600dpi resolution. Up to now these have only been for monochrome use but Kodak is about to release colour inks for these printheads now. Matti, which produced the paper transport system for Kodak's VL-series inkjet machines, showed off a printer that is essentially a VL unit with two of the monochrome S10 Stream heads inside it. Matti should have a colour version with the S10 heads later this year.

Fuji showed off its sheetfed B2 inkjet press, the Jet Press 720, with IPEX being its first live demonstrations. This uses the Dimatix Samba printheads which deliver resolution of 1200 x 1200 dpi, with four variable dot sizes. It runs at 2,700 B2 sheets per hour, which translates into 180 A4 pages per minute. It handles paper from 100 to 300gsm.

It takes uncoated offset paper, largely thanks to a precoating fluid applied via an anilox roller as the sheets enter the press. The water-based ink has an anti-coagulant to stop it spreading across the sheet, and there are several drying systems to ensure sheets emerge from the press fully dry.

This is a large, solid-looking press and Fujifilm is clearly hoping to persuade B2 users to move from offset to digital. It is a simplex machine with Fujifilm expecting customers to turn the sheets around and feed them back through the press for duplex work. It can do variable data, but it's really aimed at the short run market because of the difficulty of lining up variably printed information to the front and back of the sheets.

Screen also has a sheetfed B2 inkjet in the shape of the Truepress Jet SX. This uses Epson print heads, delivering a resolution of 1440 x 1440 dpi. It uses water-based ink, and Screen says that it will work with most offset papers, from 80 to 400gsm. There's no pre-coating, but the press does use a sealer immediately after imaging to fix the image to the substrate.

Brian Filler, managing director of Screen UK, holds up a sample from the Truepress Jet XS.

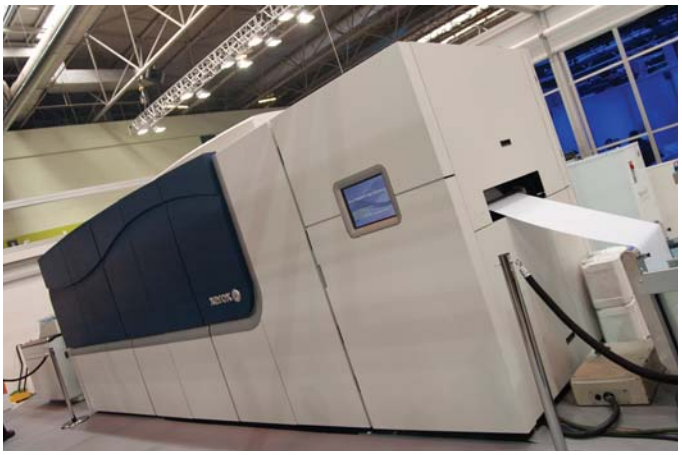
Following feedback from its drupa outing, it has now become a duplex machine though the speed halves for duplexing, meaning that it can run at 108 A4 simplex pages per hour, but only 54 duplex pages per hour. As such, this is not really aimed at the high volume markets of the other inkjet presses but is instead competing against the established electrophotographic digital printers. It is very expensive, at €1.24 million, though will print to cheaper

media than the laser printers, although Screen havn't yet determined the ink prices.

It uses Screen's new Equios digital front end, which is essentially a cut down version of Trueflow, without the CTP-specific parts. It should be in beta testing shortly and ready to ship by the end of the year.

Screen also demonstrated two new additions to its growing Truepress Jet 520 family. The 520EX is a monochrome-only device aimed at the book printing and direct mail markets, while the 520CP is priced as an entry-level model to the high speed high volume inkjet market, but with a credible 720 x 720dpi resolution.

Xerox has also entered the inkjet game, previewing its Production Inkjet printer on its stand. Steve Hoover, vice president of Xerox Global software and solutions, claims that this is more of a technology demonstration than a finished product but the print samples look reasonably clean with none of the artefacts common to early alpha machines and we understand that Xerox is planning to start shipping this press sometime next year.



Xerox's Production Inkjet printer is designed specifically to print to lower cost media, targeting the transactional/ transpromo markets.

Xerox's inkjet technology is based on the solid inks that Tektronix developed. The inks are supplied in solid granules, which are then heated until they liquidise so that they can be jetted. However, they solidify as they cool, so that the image sits on the paper surface rather than penetrating into the paper fibres, which also helps when it comes to de-inking the prints. Also, because the ink is solid and therefore there is no water, the press can cope with very lightweight papers, in the range of 45 – 160gsm.

The printer itself has a resolution of 600 x 600 dpi. It uses three inch stainless steel printheads which Hoover says were designed for durability. There are 56 printheads and a built-in sensor that scans the print for inconsistencies and determines which nozzles fire. It runs at up to 500 feet or 152.4 metres per minute. Xerox is aiming at the direct mail and transactional markets, though Hoover says: "We believe that we can get a gamut close to offset on uncoated paper."

Impika unveiled its latest inkjet, the iPress 2400. This uses Panasonic printheads and has a native resolution of 1200 x 1200 dpi with a production speed of 76 metres per minute or 6000 B2 sheets per hour. It can also print at 2400 dpi, at a speed of 37 mpm, with around 200 lpi. It's web-fed, with a 520mm print width, but Impika has also shown off a 711mm wide printhead. Impika says that it's developing a sheet-fed version of the iPress 2400 that should be ready next year.

There's a choice of pigment or dye-based aqueous inks and Impika says that it can adjust the ink formulations for specific customer requests. It takes papers from 60 to 160gsm with an option up to 250gsm, and prints to uncoated substrates, as well as silk and glossy inkjet papers.

Agfa showed off its Dotrix Modular LM press with its new Agorix LM low migration inks designed for food packaging. The Dotrix is a six-colour UV-curable inkjet running at a speed of 32 metres per minute with a 63cm web.

Domino, best known for labels and speciality marking systems, brought two brand new web-fed printers to the show. The N600 is a label printing press capable of printing up to 75 metres per minute. It uses UV-curable inks and works with a wide range of paper and plastic substrates.

The K600 is a high speed document printer, which was busily churning out newspaper pages at the show. Printheads are arranged in modules, and depending on

how many modules are fitted it can print a swathe from 108mm to 780mm, with a choice of colour or black and white.

Resolution is 600dpi, with up to four levels of greyscale, and users can choose different ink types, including aqueous, depending on their applications. It can run at up to 150 metres per minute.

Domino's K600, seen here printing newspapers for a customer on the IPEX stand, is a fast, flexible solution that should appeal to a wide variety of users.

However, there is no redundancy built into the head – instead Philip Easton, Domino's director of digital printing solutions, says that it only takes 30 minutes to change a printhead, noting that piezo-electric drop on demand inkjet is generally quite reliable.

French company Neryos had an A3 inkjet machine using Kyocera printheads, capable of producing 300 A4 pages per minute at a resolution of 1200 dpi. The IPN75 is a simplex machine which takes 70 to 300 gsm media. However, the most interesting aspect is the sales model – the machine is rented rather than sold, though Neryos refused to discuss rental prices. However they do quote an average running cost of €25 per thousand pages, which includes the paper and rental costs.

Olympus showed an interesting machine on the Sofha stand. The Full Colour Inkjet Web Printer is an A3 inkjet machine that can print 160 A4 duplex pages per minute. It uses two sets of Toshiba heads but there's no image fixing system so that it's limited to a special type of paper. It's roll-fed and it does include a perforator, which is handy for producing coupons. Price is €300,000 to €350,000 and it should be available in September.

Toner digital

In amidst all the excitement of the inkjet presses, it was easy to overlook the electrophotographic printers. The most significant of these was the new Konica Minolta BizHub Press C8000, due to ship shortly. Product manager Pauline Brooks says that it was designed for the commercial print market, with a new toner that should give more consistent results. It offers a resolution of 1200 x 1200 dpi x 8-bit. It takes paper from 64 to 300gsm, up to A3+. Productivity is up to 80 A4 ppm. There's also a C6000 and C7000 due to be launched in November this year.

Canon has upgraded its range of ImagePress printers with slightly faster versions, with the C7010VP, C6010VP and C6010. They also include X-Rite's i1 Process Control v3 for better colour management, including spot colour optimisation. There's also new front end controllers, based on EFI technology, that deliver faster RIP'ing speeds. Canon also demonstrated the new black and white ImageRunner Advance models aimed at the light production space, and which we've covered earlier in the year.

HP has upgraded its Indigo 7000 to the 7500, with the new model boasting a number of productivity enhancements. The main new feature is a Vision System that can scan printed pages and help automate calibrations to reduce maintenance stops. It runs at 120ppm in four colour mode, and handles stocks from 80-350gsm, coated and uncoated, as well as uncoated stocks at 60gsm.

Xerox introduced two new toner-based printers, the Color 800 and Color 1000. These run at 80 and 100ppm respectively. They use Xerox's EA toner and have an optional fifth colour station for clear toner for highlighting images. Resolution is 2400 x 2400 dpi and they take media from 55 to 350gsm, coated and uncoated. These will also be sold through Fuji Xerox and there was a Color 1000 on the Fujifilm stand.

Chinese company Jadason Technology also showed off a new electrophotographic printer, the QPress. This is a single-sided toner printer that can produce 20 B2 sheets

per minute. It's distributed in the UK via Compose, which also supplies the RIP and variable data workflow. Cost is €350,000, and managing director Kenneth Sung says that its designed to run with the cheapest possible papers.

Xeikon had its new 3500 label press which handles web widths up to 512mm wide and runs at a speed of 19 metres per minute. It has a fifth colour station for spot colours and speciality applications.

Epson has been touting its new SurePress inkjet label printer around various trade shows for a couple of years now but has finally launched it at IPEX. This will print to the usual label substrates, including films, but uses water-based inks. Unlike most of the inkjet devices covered here, this is not a single pass device. Instead it prints a frame, and then moves the web on to print the next frame. Resolution is 720dpi on paper, and 1440 x 720dpi on film. It runs at 5 metres per minute. The front end comes from EskoArtwork.

Conclusion

It is also worth noting that there was plenty of interest around the offset machines and it's obvious that many of the new inkjet presses will struggle to find a place in the market against some stiff competition.

Nonetheless, the presses we've covered here do represent a fundamental change in the print industry. This story has necessarily been a fast run-through of the various presses that were on show at IPEX. We'll take a closer look at the different technologies later in the year as they come closer to their commercial sales and we can better assess their market potential.

– Nessan Cleary

Webs & Tides

The two most important trends we have followed in recent years were screaming loud and clear at IPEX. Workflow efficiency and process automation shape the competitiveness of print, and web-to-print technologies extend the model beyond the print shop and beyond conventional supply chains. Utilising the Internet for file delivery was only the start of a long journey, evidence of which was everywhere at IPEX.

Web-to-print technologies are of course an extension of workflow so it's not easy to draw lines between workflow, web-to-print and web-based workflow tools. And many of the products on show in Birmingham were either application specific, process specific or both. Suppliers vary in their approaches to providing these technologies. Ricoh, which offers the NowDocs technology, prefers the hosted option for web-to-print, but Canon and companies such as EskoArtwork reject hosting because it could compete with dedicated tools from partners such as EFI and Obectif Lune.

In Action

That the technology works and can be successfully exploited is unquestionable. IIR, the show's organisers, used web-to-print to generate IPEX branded marketing collateral. RedTie hosted a system for IPEX that was central to the show's co-marketing programme, producing flyers and postcards to encourage exhibitors' customers and prospects to come to the show. And it certainly worked. The show was for the most part extremely busy and even two hours before close there were people in the aisles, still doing business.

Deploying a web-to-print system is becoming a strategic choice for technology providers, their customers and customers' customers. The huge range of technological possibilities illustrates the breadth of options: anything that links printers, print buyers and media consumers via the Internet is a web-to-print system. Wherever one sits in the media supply chain, web-to-print is a reality and one to embrace. How to embrace it is another matter. Clearly for those who prefer to ignore it completely, their days of wine and roses are numbered.

Our web-to-print highlights include the known and the unexpected, such as Exif. This is a very new company risen from the ashes that were Press-Sense, the remains of which were recently acquired by Bitstream for an unbelievable $6.5 million. Exif has developed a multimedia dashboard that it offers as a hosted service. A series of technology modules operate independently and can unify different media channels for multimedia campaigns. The idea is to exploit mobile technologies using different touch points such as SMS and print to interface with customers.

The technology allows users to specify how they want to receive information, and analyses their behaviour and interactions with different media channels. It's the mobile version of social networking sites and its print dimension has vague echoes of EFI's Print Me concept. Sold as a hosted service, it costs around €600 per month for six channels with click charges ranging from €0.001 to €4. Exif has already attracted customers from retail and travel, with one company using it to promote its chain of 400 restaurants.

We had heard in advance about NowDocs technology from Ricoh and the new web-to-print module in Fujifilm's XMF, which can also drive the new Jetpress 720 inkjet sheet-fed press. Heidelberg has added a web-to-print module to Prinect, through its new partnership with EFI. Heidelberg has also worked with a number of other MIS and web-to-print vendors in a bid to offer customers a wider choice.

And Presstek's Pathway, OEM'd from Press-Sense/Bitstream, is a new web-to-print system driving work for direct imaging static data offset presses. GMG has set up a new site called proofr.com for distributed controlled proofing and it expects to leverage its partnerships with Canon, Epson and Roland to get users rolling with this model.

Using the web to manage and deliver files is the most recognised iteration of web-to-print but the idea of a single point of internet-based control is not. Enfocus tried it some time ago with CertifiedPDF.com for PDF quality

We love Presstek's illustration of workflow: it says it all with direct imaging presses alongside analogue and variable data digital presses. Its relevance depends on your business model and how well the static short run colour and variable data colour jobs your customers have complement each other.

control and is resurrecting the idea. Certified PDF is being pushed beyond the Benelux countries in order to get a wider base of user input for how it should develop in the future.

Enfocus is also trying to expand its OEM model to include smaller companies who want to improve workflow controls and file preflighting with their core technologies. This is about Enfocus expanding its business to a broader base of customers, just as Pitstop Connect is about moving it up the supply chain to bring PDF preflighting to the desktop. All of it depends on the web and it suggests hosted services, the so-called Software as a Service (SaaS). According to Enfocus' CEO Fabian Prudhomme SaaS and the hosting model "is something I'm looking at right now".

What's IT To You?

It's been apparent for some time that the workflow conversation ought to involve IT people as much as the production folks. The idea of SaaS is gaining traction in general industry, but it's still not the preferred model for printing and publishing. The company doing most to position itself to help printing companies leverage their IT is EskoArtwork, far and away the most farsighted of industry developers, seeing further even than HP.

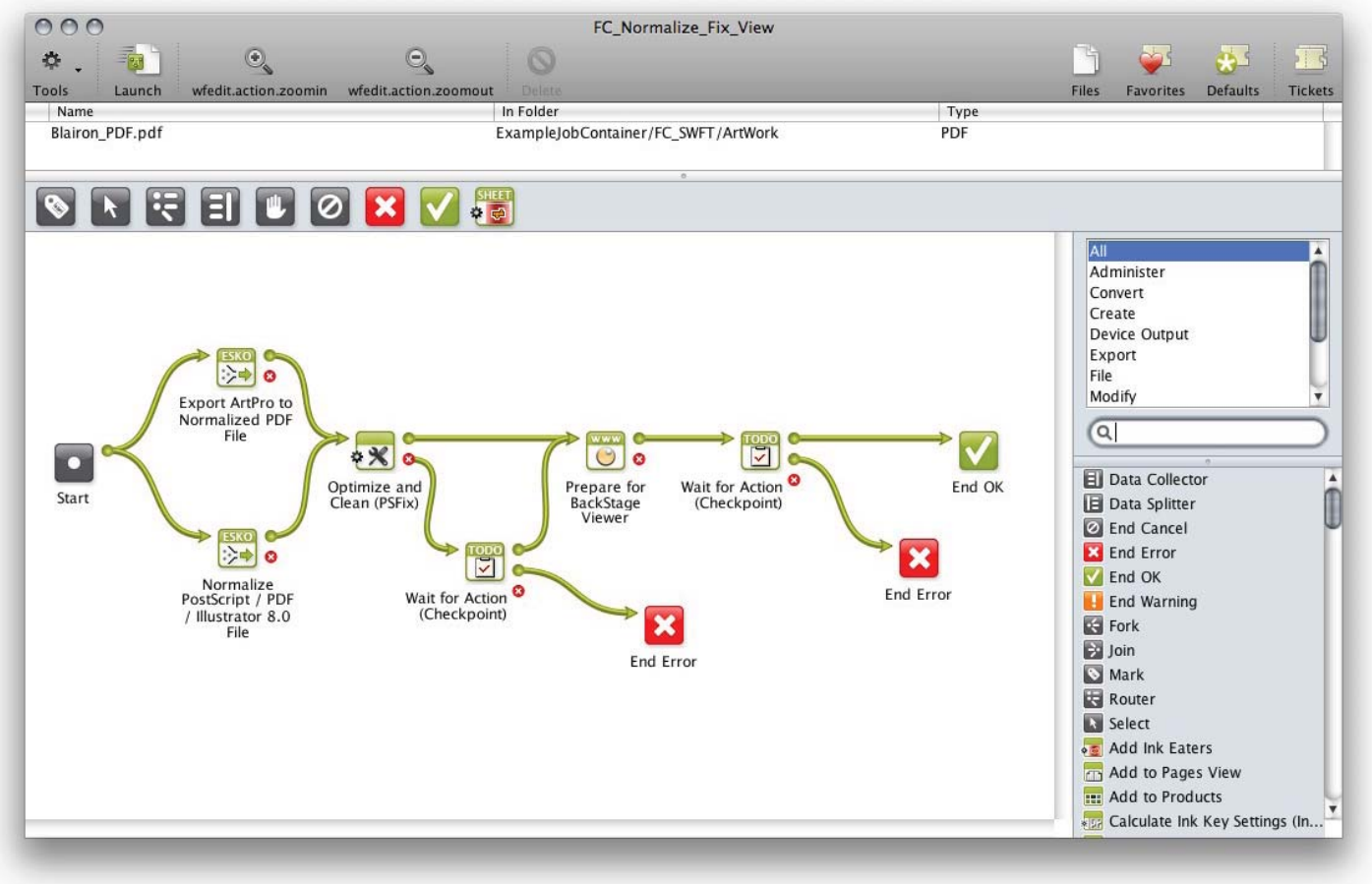
For EskoArtwork, the IT department is becoming more and more important because it interfaces with all other parts of the business. How EskoArtwork deals with its customers is changing to reflect the different mindsets of IT people compared to their prepress cohorts. Workflow technologies may start to be less production driven and rely more on the data needs of the business. JDF plays a key role here, providing a format that can facilitate data sharing throughout the business. SaaS is therefore just one of the ways in which EskoArtwork's customers can buy the company's technology, particularly the Automation Engine 10 announced earlier this year.

Get SaaS-y

Perhaps the most ambitious proponent of SaaS is EFI, which has over 1.7 million Fiery RIPs installed around the world and over 2500 cloud connected PCs getting downloads of its Command Workstation software. There are expected to be over 40,000 downloads of version 5 of this software this year.

At the EFI IPEX press conference CEO Guy Gecht entombed his message within walls of bizarre metaphors and took forever to get to his point, but it was a point worth making. (At least we think it was, but we may have gotten lost amidst the references to apples, volcanos, Sir Isaac Newton and various other scientists hauled up from centuries past.) The point was that EFI is doing well because of its partnerships: partners are placing more and more digital presses and Fiery RIPs. EFI will see a 20% increase in its Fiery installs this quarter compared to the last. And active use of its cloud model is encouraging EFI to introduce version 2 of its Print Me web-to-print concept, using JDF to manage data interfaces from desktop computers to remote printing engines.

Perhaps the biggest boost to EFI's workflow credentials is the deal it signed during the press conference at IPEX with a Spanish company called Service Point Solutions. This $220 million company has 120 printing plants in eight countries and is installing EFI's PACE MIS and Digital Store Front web-to-print system. The company's COO



We think that EskoArtwork's Automation Engine is one of the most sophisticated IT implementations available. And it's got peerless applications muscle for packaging applications.

Joan Carlos Peiro said the deal is "going to be a two year process and will finish in full visibility and full control over our systems and that's going to put us in a strong position compared to our customers".

EFI has also established a partnership with Heidelberg to provide web-to-print tools. EFI now hosts its Web Control Centre for colour management and remote proofing management in its computing cloud. With this technology it's possible to monitor Fiery XF RIP-driven proofers, using JDF to transmit the status of proofs to users. This technology is now operational and EFI is working with a major packaging company to deploy it. Perhaps we'll see an extension of this model to EFI technology partners, such as Heidelberg.

Flowing Ever Wider

Ricoh is an enormous company tightly focused on IT and its role in workflow management. Ricoh has a huge base of photocopiers and data management systems, much of it in the public sector, so it's got lots of experience in data management. This experience and access will stand the company in good stead when it starts to up its game in production technologies and colour system deployment.

Since bursting onto the scene at drupa 2008 Ricoh has expanded its portfolio, with additions to variable data printing, colour management, transpromo and mailroom tools, as well as its web-to-print deal. Benoît Châtelard senior vice president and general manager of Ricoh Infoprint for Europe, the Middle East and Africa said at IPEX: "It's beautiful to see how complementary are our product portfolios".

With the merger with Infoprint now complete, the combined company is focusing on how to exploit the technology that came with the merger. This includes patents on data processing and variable data work that used to belong to IBM. Ricoh Infoprint sits on thirty years of transaction experience, and according to Châtelard,

"we hope without arrogance to lead the market". They probably don't need to worry too much about bombast since, together with Screen, Ricoh Infoprint has installed over 2,000 continuous feed colour inkjet engines, which apparently is over 50% of the worldwide market, and they are world leaders in AFP.

The Double Helix

We believe that enterprise software is the future. It's in the DNA of most of the digital press manufacturers all of whom have strengthened their IT positions of late. Xerox has bumped up its revenues by 40% through its acquisition of ACS (Affiliated Computer Services, providers of enterprise and cloud computing infrastructure) and expects digital and offset volumes to be equal by 2018. The cloud approach isn't necessarily a common view however and there's still room for alternatives, depending on the business needs.

Presstek, for instance, offers a range of options for driving its direct imaging presses. The new 75DI press can be configured with Presstek Latitude, an OEM production workflow system from EskoArtwork, plus RIPs based on the Global Graphics Jaws or Harlequin technologies. Presstek also offers web-to-print software. This is the most usual model for workflow management, although web-to-print really needs to be at the heart of workflow. Most companies still prefer to buy or sell products installed at the customer sites.

Heidelberg has introduced an entry level version of Prinect workflow, Prinect S for "lean print production" has supports for short run work including new colour management tools. Heidelberg is working hard to keep its customers as well as itself competitive with digital print and is building up its workflow management skills to help customers account for the 25% of production time that is largely unaccountable.

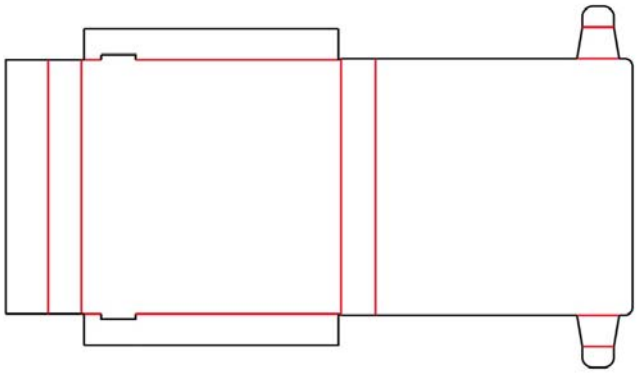
Digital workflow management efficiency is helping Heidelberg to bring plate changing times down from eight to less than two minutes. Improvements to InPress Control reduces makeready times from twenty to two minutes. Image Control has also been enhanced with a scanning tool that compares printed sheets with a proof and the original data file to ensure accurate colour. We aren't sure how well this works since the scan on the printed sheet looks at wet rather than dry ink values, but it's a step in the right direction.

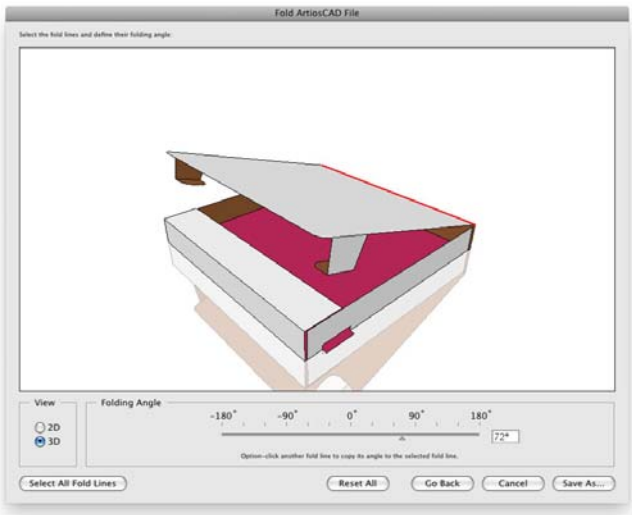
Workflow efficiency, including web-to-print, is about getting pages to an output device. The growing hordes of players in this space range from traditional manufacturers such as Fujifilm, Screen, Agfa and Kodak, through to the arrivistes including HP Indigo, Xerox, Ricoh, Canon, Xeikon et al. Both groups have extensive armouries for battling workflow conundrums but the latter group continues to expand, further complicating the workflow picture. Konica Minolta is entering the light production space with the Bizhub Press C8000 and the Printgroove Suite, which includes Kodak/Creo's Darwin technology for variable data print, plus technologies from other partners. It's too early to say how this will play out, so we'll take a closer look later this year.

The new guy on the block is Konica Minolta whose move into the light production space gives people more choice or further confuses the market. It all depends on your point of view. Either way, their slogan's adroit.

Changes to the community of traditional suppliers getting into digital printing seem to have slowed down. Heidelberg, for which hopes of a digital alliance news were high at IPEX, remains a bastion of analogue. According to CEO Bernard Schreier addressing the press at IPEX "we are in discussion with most of the digital printing press providers – we have set ourselves a goal for deciding what to do by the end of 2010". He added: "we will be a market leader in digital".

Not if HP has anything to say about it. This company's strategy is clear and the introduction of the impressive T200 and new modules for the SmartStream workflow suite shows that HP's focus remains razor sharp. Wherever





The only bit of the printing industry that's totally immune to the Internet is packaging. We can expect options for online on-demand consumer-driven packaging applications to start showing signs of life very soon. EskoArtwork's latest updates to its Studio packaging design product, and its online database of standard packaging templates, are harbingers of what's to come.

Heidelberg's path leads, it will certainly require stronger support for variable data and hybrid workflows. This is a central plank in Heidelberg's future.

For those who can't face their workflow alone there are all sorts of partnering possibilities. Kodak has its Print Practice consultancy for training and retraining to ensure printers can be active participants in the digital world. Ricoh has Business Driver and Canon its Business Builder programme. Xerox has been at it the longest with profit Accelerator for its Premier Partners, and HP has the HP Indigo Capture programme. All of these are about partnering, which adds another dimension to workflow.

We've seen a sharp rise in deals between companies, but partnering only makes sense as long as the business model makes sense too. It allows companies to focus on core competencies, while extending their range of services. This could be technology development as is the case with the likes of Bitstream or Global Graphics, or it could be sector specific market channels, the great strengths of Xerox and Kodak, or Manroland and Kodak.

Quite what the Shanghai Electric acquisition of Goss will yield in this respect remains to be seen. Downward pressure on run lengths will continue, and with web presses capable of economic runs at 2,000, output options get more confusing. Only efficient workflow and web-to-print systems will allow print buyers and consumers to continue to exploit advances in the ever growing range of output technologies.

– Laurel Brunner