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Spindrift

...Scandalising The Graphic Arts Industry Since April 2003

News Focus • Opinion
Reviews • Techno-Babble
Attitude

Volume 4, Number 7
3rd November, 2006

change • **noun** **1** the action of changing. **2** an instance of becoming different.

– From the Compact Oxford English Dictionary

Dear Reader,

Change is always coming, and in this month's issue you'll detect a significant change in Spindrift. Nessian Cleary is our guest editor, standing in while Cecilia and her husband enjoy to the fullest the latest change in their lives: baby Luke. Life will never be the same again and we all wish them our best and send them our love!

Change in our little world echoes evidence of positive change too at the numerous trade shows taking place this month. There has been a positive stampede of news coming in, with a huge diversity of announcements from Ifra, Graph Expo, Digital Print World and Mac Expo. They share a common theme: energy, with masses of new products, new software modules, hardware enhancements and new alliances. The industry is abuzz with activity and after the last few whiney years the enthusiasm is invigorating, for a change.

In the newspaper business, where whinging is at its dubious best, publishers are investing again, spurred on by rising circulations in many regional markets. Circulations are rising because newspapers are changing their business models, moving from paid-fors to frees. Commercial print is coming back into favour too it seems, as print buyers start to appreciate the medium's power and the high value return it delivers.

Whenever there are signs of change there ought to be signs of opportunity, so let's hope we can spot the chances. Whether it's change or chance you're looking for we hope this month's issue gives you plenty to ponder.

Enjoy the read!

The Spindrift Crew,

Cecilia, Laurel, Paul, Nessian and Todd

In This Issue

Demanding proofing

Now that most people have mastered the intricacies of CMYK proofing, Paul Lindstrom examines the difficulties of proofing several spot colours, a common problem for those working in packaging and elsewhere.

see page 9

Brought to book

Continuing our series on the impact JDF is having on different parts of the industry, we've looked at the book printing sector. There have been considerable technology changes here, notably the widespread adoption of on-demand printing. However, JDF uptake appears not to have kept pace with the bulk of the general commercial printing sector.

see page 14

Right on cue

If this issue seems a tad bigger than normal, it's because we didn't have the heart to trim Laurel Brunner's epic paean on the wonders of Ifra. The newspaper industry it would seem is very much alive and well, with lots of new products, new orders and a fantastic range of solutions for disseminating content across the web.

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News Focus

Xerox is to acquire XMPie for \$54 million. XMPie provides variable data management software for digital printing. The two companies have a longstanding relationship, with Xerox being XMPie's largest reseller. XMPie is a Scitex digital printing spin-off based in Israel. This acquisition gets Xerox ownership of some seriously clever technology, technology which XMPie currently distributes through partners which include, HP, EFI and Kodak as well as Xerox.

The World Association of Newspapers has announced a technical project to "enable mutually beneficial business relationships between newspaper publishers and search engines operators". The Automated Content Access Protocol (ACAP) is an automated system that allows search engine spiders (the things that index web pages for retrieval) to recognise copyright content owners' access and use permissions information. Quite how this will work isn't very clear, but the idea is basically to improve the competitive situation between newspapers and search engines, such as Google.

Artwork Systems has launched Equinox for expanded gamut printing. Artwork is working with X-Rite to offer profiling hardware and software to customers in conjunction with Equinox. This tool combines advanced colour

management and workflow technologies for cost effective control of 7-colour process printing. It allows users to work with ICC profiles, and to specify separation parameters and spot colour conversions. Artwork also announced that its order intake at the recent Graph Expo show in the US was \$2.1 million over four days!

Punch Graphix has introduced a new generation of Basysprint UV Setters for large and super-large formats, which is much faster than its predecessors. They are built around a further optimised version of Punch's violet diode Digital Screen Imaging technology.

Agfa had a swarm of news at Ifra: Arkitex Opti Ink for ink optimisation on press, upgraded Intellitune and a PC Version, Advantage DL for imaging 220 newspaper plates per hour, growth of its Latin America newspaper user base of 50% in 12 Months, and more. See the Ifra saga on page 18 for details.

Adstream (owners of Quickcut) and virtual proofing developer Integrated Color Solutions (ICS) have signed an agreement to allow Adstream to offer ICS' colour managed soft proofing technology as part of the Quickcut advertising workflow system. This will help ensure that ads are colour accurate and automatically validated prior to transfer and digital delivery.

HP and **X-Rite** have announced a strategic partnership to integrate colour management and inkjet printing. The idea is to have a colour managed inkjet solution that is accurate and consistent across devices.

Xerox has previewed a new parallel printer architecture, developed by Xerox researchers in Webster, N.Y. and at the Palo Alto Research Center (PARC). It delivers the power of two printers and works in a similar way to parallel architectures for data storage and processors. It combines software and hardware so that two print engines work together as one, while still allowing each individual engine to work independently.

HP Indigo Production Manager is a new off-press digital front-end (DFE) hardware and software solution. It is designed to manage automated workflows, high-volume variable data and complex document printing and is available in single and scalable multi-RIP configurations. ▶

Spindrift

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▼ This technology can centrally manage workflows in multi-press configurations, and is compatible with HP Indigo commercial press models 3050, 5000 and w3250.

Global Graphics and **Oki Data Americas** are working together on low-end, digital press technology. Global Graphics is providing the Harlequin RIP and Oki Data the LED print engine technology to develop an entry level digital press system to be distributed worldwide through selected Global Graphics channel partners.

Domino Printing has announced the acquisition of Mectec Elektronik AB, based in Malmö, Sweden. Mectec specialises in the design, development and manufacture of labelling equipment.

Kodak has added automation features to the Nexpress front end and improved connectivity with Prinergy with expanded JDF capabilities. Due next summer, the next version is based on Adobe's PDF Print Engine and will include Kodak's new Colorflow technology, a colour management system for communicating, controlling and confirming colour from concept to delivery. The next version of Prinergy, version 4.0, will also include this technology. Kodak has also announced version 4.0 of Profile Wizard with additional profile editing tools such as grey balance editing for Device Link profiles and black channel adjustment, with an upgraded user interface.

Meanwhile Kodak's Prinergy3.1 workflow systems are now Ghent PDF Workgroup compliant. This means that they meet the GWG 2005 PDF/X-Plus V3 standards for preflight specifications.

Canon is to collaborate with Heidelberg to develop connectivity between Canon's ImagePRESS C7000VP digital press and Heidelberg's Prinect Digital Print Manager. The goal is to create transparent support for hybrid offset and digital output paths for commercial printers.

Canon has also announced the Canon Workflow Program, a package of services, support and solutions, for printers. It includes tools for colour management, production workflow and personalised print, plus services and consultancy.

Xerox has launched Teacher's Edition Books, a combination of digital technology and software for printers who want to provide textbook publishers and school customised textbooks. Excellent and long overdue!

ECRM has launched Workmates, a new PDF workflow solution for small to medium sized printers, so that they can impose, trap, proof and manage all print jobs. Workmates has plug-in modules for advanced screening, step and repeat, and JDF support.

Esko has developed plug-in versions of its Desk Pack technology, for Illustrator. Desk Pack is a Scope software component that turns Illustrator and Photoshop into full-featured production workstations for packaging design and pre-press.

Esko is also getting into the consulting business with the introduction of value added consulting services for converters, tradeshops, brand owners and retailers.

Xerox has announced two new solvent based wide format inkjet production printing systems. The Xerox 8200 series Eco solvent and 8300 series Mild solvent systems are available in 65-inch and 90-inch width versions.

Cacidi Systems has announced software to link Adobe Indesign documents to a database. It is intended to make it easier to produce publications that consist of many pages.

At Ifra Finnish prepress supplier **Flowman Oy** launched a new modular version of its 'virtual prepress' service for web based automated prepress services.

In the US **Time Inc.** has approved the use of softproofs from Dalim's Dialogue monitor-based proofing system. Time's printers Continental Web Press, will use these proofs as a basis for all its press proofs.

Global Graphics has introduced a family of Jaws RIP products. There are three suites of tools: Jaws PDF Desktop for the single user, small office and enterprise; Jaws PDF Server Suite for IT administrators in small to medium-sized organizations; and Jaws PDF Enterprise Suite for IT administrators with more than 300 users.

Gradual Software, developers of publishing workflow automation tools has integrated the Global Graphics Jaws PDF creation tools into Gradual's Switch product line.

Quark has already announced a new release of Quark Xpress. Version 7.02 improves flexibility and has license-transfer features (for easier sharing) and typographic support for new languages and fixes errors customers ▶

have reported since the product was first shipped. Quark Xpress Server is also ready to roll.

Quark and **Picdar**, leading suppliers of digital-asset management solutions have entered into a technology integration agreement.

Markzware's conversion utility ID2Q7, Indesign To QuarkXpress for versions 6.x through 7 for Windows is now available.

Enfocus is working on Adobe Acrobat 8 compatible versions of its complete product line, including the industry's most popular PDF plug-in, Pitstop Professional.

Fujifilm's FM screening technology Taffeta 2.0 is now shipping as part of the Fuji Open Workflow.

Fujifilm has also opened its second plate production line for digital offset plates in Tilburg, The Netherlands. The line is the result of a €40 million investment.



IGAEF [Eye-gaff] INTERNATIONAL GRAPHIC ARTS EDITORS FORUM www.igaef.org

IGAEF is an information resource for technical writers, journalists and editors working in the graphic arts and printing industries. Everything you need to know about digital prepress technology is here including explanations and data about... computer-to-plate (CTP), digital printing, preproduction data management (preflighting and preflight checking), colour, colour management, ICC specification and profiles, device profiling, monitors, proofing, page layout, editorial systems, and key data formats. This includes JDF (Job Definition Format), XML (eXtensible Mark-up language), PDF (Portable Document Format), and so much more.

The screenshot shows the IGAEF website interface. At the top, there's a header with the IGAEF logo and tagline. Below that is a row of logos for supporters including AGFA, SCREEN, FUJIFILM, Canon, and BPIF. The main content area is divided into several sections: a navigation menu on the left, a central 'Welcome To The Eye-gaff!' section with a date stamp and introductory text, and a 'Latest Press Releases' section. On the right side, there are sections for 'Pic Of The Week', 'News from Print On Demand', and 'News from What They Think?'. The website layout is typical of a professional industry forum from that era.

Driftwood

(Useful stuff washin' up on our shores)

Behaviour Patterns

As has been reported before in this column, research is going on in many places in the world to use pattern recognition technologies in a wide variety of applications. One approach has been to interpret handwriting on pen tablets (as used by IBM), another uses pattern recognition techniques to identify certain shapes in an image, and to use those shapes as the basis for image correction, as Fujifilm does with its minilab software for consumer imaging.

Swedish scientist Jan Erik Solem is developing a technology that uses image recognition techniques to identify people and objects in large image databases. Jan Erik Solem, works at Malmö University in Sweden and has presented a web-based search engine. This search engine is designed for analysing images and identifying faces. In the past both Picdar and Global Graphics had similar products which were used by the police to match pictures of crime suspects against images in databases of known criminals.

What Mr Solem is doing is to develop another application of the technology, creating 3D-models based on photos or video clips. This is not a new technology but Jan Erik Solem suggests it could be much enhanced given the research results from the team involved in the present project.

The image search engine is at the moment in beta testing, and time will tell if this will be a technology introduced on a wider scale. It would be extremely useful for media asset management systems and for variable data printing, and it could have some fascinating applications in popular search engines on the web.

One of the problems when searching for images in a database, web-based or otherwise, is that unless someone has written the associated metadata for the images, it's

very hard to know what is actually contained in the pixel data.

Two years ago Xerox presented its Image Categorizer, which is now finding its way into the Freeflow suite of workflow technologies. Although we haven't seen it in action, Image Categoriser seems to promise results that are similar to what Jan Erik Solem and his colleagues are proposing. However that technology seems also to be waiting for its big breakthrough in the media industry.

Perhaps we shouldn't hold our breaths while waiting for these technologies to be fully implemented, but instead continue to tag our images with relevant metadata. The Photoshop "File Info"-section is a good starting point.

Spindocs

(Where the spinner gets spun!)

PIA/GATF recently presented research analysis from their test production area in Sewickley, US. The good news is that they have found that JDF integration had made the workflow 75% faster. The bad news is that PIA/GATF claim that their test facility is the only functional JDF implementation in the US:

"Attendees will get a first-hand look at the model implementation within PIA/GATF's production area and see a sample job produced on the first functioning JDF workflow in North America."

JDF enthusiasts needn't lose heart because, based on CIP4's latest survey conducted in August, "there are between 3581 and 4035 current JDF installations (95% confidence), and there are between 3361 and 3815 companies with a pending purchase of JDF systems (95% confidence)." These numbers are based on information from 140 vendor members of CIP4.

CIP4 use PIA/GATF for the certification, so it's a little odd, looking at the numbers above, that PIA/GATF claim that their test site is the only working JDF installation. Numerically challenged perhaps?

▼
And this from the inimitable (hopefully) Mr George Bush, which we just have to share:

"We're modernising the southern border of the United States."

He is referring to the fact that the US is building a 700 mile fence to keep out the Mexicans and other central American migrants!

Expandocs

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

DTI's Liquid Media

Liquid Media is designed to enable content to flow from wherever it is created and stored to any destination. The shape and format of the content is automatically adapted to the target output channel. It does not require any interpretation or structural definition as is the case with XML. With Liquid Media content is format-independent and does not need to conform to a specific data standard. It has infinite configurability and output flexibility.

This technology is a combination of several parts. Perhaps the most important of these is Ensemble, an engine integrated into the Caché database technology DTI uses to support its publishing technologies. Ensemble handles the data flow management and the communications between Caché databases and others, such as Oracle. Ensemble is an interface language based, as far as we understand, on Caché's component-based technology called Zen. This is an XML development environment for Rich Internet Applications (see Acrobites). It makes it possible to write very complex applications very quickly. Organisations use it because it allows them to leverage existing technology investments and infrastructure.

Ensemble provides a standardised method of interrogating the database, with a series of processing steps that perform data transformations of the content in that database. Each piece of content in the database is

stored as a collection of entities, a sort of sub-database of components, which get translated across databases (it's the same idea as that which underlies PDF: a PDF page is a collection of independent elements).

DTI is using Ensemble in combination with a digital library and content management technology developed elsewhere. The Israeli development company concerned designs products that use advanced text analysis and processing technology to automatically select, summarise and associate unstructured data. This data can then be published in any format including print, online or on television. Different media are related to one another automatically, so that news stories can be linked to archive information and related stories. The idea is to provide automated content acquisition, management and delivery with content mapped to show relationships that further assist content routing.

Media assets can be related across media or routed to different workflows, so this technology can make it very simple and inexpensive to create cross media content management and production systems. It uses natural language processing so it is possible, for example, for advertisers to specify target readers for their ads and let the software match ads to readers based on their patterns of editorial usage. This topic-based matching of content elements uses language processing based on the words in a story or in an advertiser's support marketing document and it doesn't matter what the language is. There is no need for people to create their own taxonomies or topic categories, or to prime the software to define how to relate content to target readers.

DTI's Liquid Media is extremely impressive and is relevant far beyond the newspaper industry. It combines the best of database, content management and data retrieval technologies into a single manageable entity that is easy to deploy in small as well as large content environments, whatever their delivery channel. Wonderful stuff indeed.

Say What?

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

For this month's Say What?, we'd like to thank Presstek for this pioneering work on the relationship between short runs and long windedness:

According to market research conducted by Dr. Joseph Webb of Strategies for Management, "Much of the print industry's decline in shipments volume has been in long-run printed documents. Short-run is actually mainstream. Short-run printing weighs on the capital base that was purchased to produce long-run printing, and until that installed base is replaced, profits are negatively affected." Dr. Webb concludes, "Presstek has a unique opportunity and position in the reshaping of the printing industry's workflow and production methods. Presstek as a company, and print as a medium, are at a fascinating crossroads of technology, market opportunities, and competition. The company's products allow printers to compress their workflow to eliminate costly steps, leveraging the modern content creator's capabilities to make better, richer, and more predictable printable files."

We received this from Faversham House, organisers of the Sign UK show. Sometimes, as we all know, trade shows are just too exciting:

"Following the major piece of independent industry research carried out after Digital Expo 2006, which canvassed the views of over 1,500 visual communications specialists, a number of new features have been introduced for 2007 that will provide show visitors with the opportunity to not only discover the latest technology available, but to also meet peers, see live demonstrations and exchange information and advice."

So, there's obviously no time for full stops then.

Acrobites

(Something to get your teeth into)

JDBC

Java Database Connectivity refers to an application programming interface for connecting the Java programming language and a variety of databases. This includes SQL databases but it can also include any data that is stored in tabular form, such as spreadsheets or flat files. The idea is that JDBC can be used to allow a single application to access data stored pretty much anywhere. Even in mixed environments where content is stored on all sorts of systems, the data can be accessed and used. This technology has extremely interesting possibilities for on-demand media production, and of course customised, variable data print.

RIA

Rich Internet Applications are web applications that behave like ordinary desktop applications. They work by using the web server to handle virtually all processing, transferring only the processing necessary to manage the user interface and associated content to the web client, ie the user's workstation. These applications do not need installation on a user's computer, and run via the browser technology.

RIAs are a fairly new web technology but the approach has very long legs. It means that software can run on a server instead of your desktop computer, which should make it both cheaper and more convenient to use. The clever bit is to keep an RIA sleek wherever it runs, regardless of the browser being used, and to make sure that all users have a common experience despite browser differences.

Boomerangs

(Your feedback fed back)

From: "Stoffels, Jef" <Jef.Stoffels@esko.com>

Date: 12 October 2006 20:51:48 BDT

To: <lb@digitaldots.org>

Cc: "Delbar, Rene" <Rene.Delbar@esko.com>

Subject: Esko in SpinDrift

Hello Laurel,

I was very surprised to read in your latest newsletter that "...Esko has also taken some drastic steps to reduce costs and improve profitability. One area that is believed to have come under the point end of the knife is research and development. This in addition to drastic reductions in overall marketing expenditure, could put future revenue growth in jeopardy."

This is simply not true !

Our total fixed expenses in budget 2006 are 5% above the 2005 actuals, and for R&D there is even an increase by 15%...(That is not to say we did not implement certain efficiency improvements in specific discrete areas).

I wonder which "critical voices in the industry" might have passed on to you such grossly misleading information, and to what purpose...?

Anyway, feel free to give me a call or send me a mail if you want to discuss this further.

In November, Esko is again organising a corporate press conference series again, also in the London area (invitations will follow through duomedia) and we would be happy to elaborate on these points there. We would love to welcome you there.

Obviously we would highly appreciate if the printed statement could be corrected at the next possible occasion.

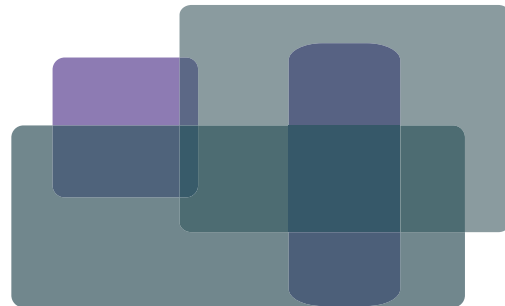
With kind regards,

Jef Stoffels - Director Corporate Marketing

Esko-Graphics

We replied to Jef: "The cost reductions information has been publicly stated, and the rise in profitability is very dramatic (400%!). I believe that marketing has been cut due to budget constraints and I have heard from several sources that R&D budgets have been very limited over the last couple of years. This is evidenced in the lack of anything dramatically new. That is why I say "is believed". Cutting R&D will put any technology-driven company's future in jeopardy, but if there has been solid investment into R&D projects that protect Esko's future, of course we should correct this statement. It is an opinion, but if it is wrong of course we can fix it."

We are meeting with Esko shortly and look forward to getting the latest facts and hopefully being able to further correct our opinion.



Demanding Proofing

While accurate printing is the main challenge for printers and publishers, when it comes to getting the colours right the step before going to print – proofing and final approvals – is the second biggest challenge.

A somewhat slow but steady uptake of international standards, both regarding printing inks and printing parameters, has taken some of the guesswork out of conventional printing, using CMYK process colours as the base set of printing inks. For printers and publishers that push the envelope even further, the challenge is now to get a good grip on multicolour printing, typically printing with CMYK, plus a number of spot colours.

In packaging print this has already been the daily challenge for many years, but for many commercial printers this is not something that is part of their regular production. For both packaging printers and commercial printers today the common challenge lies in offering customers a broader latitude for design and a reliable digital proof, including the spot colours.

Wherein lies the challenge?

So why is it so difficult to produce a reasonable proof of spot colours on a colour printer? Perhaps we should take a few steps back and ask the more fundamental question – why do we need to print with special colours at all? Don't CMYK inks offer a large enough colour gamut? It often comes as a surprise for many designers that it is not possible to reproduce every colour they could possibly desire simply by mixing only the three primary colours Cyan, Magenta and Yellow. We can produce an impressive number of colours, but nothing like the full range of colours the human vision can perceive. To be more exact, sheetfed offset printing on coated quality paper only offers a colour gamut of around 8% of the (somewhat theoretical) colour gamut described in the CIE Lab colour system.

The CIE colour system tries to emulate the possible colour gamut of human visual perception. Taking the Pantone colour system as an example of a spot colour system, we have a colour palette of 13 colours (not counting black and white inks) to start off with, so the colour gamut that can be obtained using Pantone colours is substantially larger than with CMYK alone. So a designer who calls for a certain spot colour in their layout will only get about 50% of the spot colours right, if the print is done using only CMYK inks. Getting the colour right means the printed colour should not differ more than $\Delta E 2$ from what we expect.

For printers and publishers that push the envelope even further, the challenge is now to get a good grip on multicolour printing, typically printing with CMYK, plus a number of spot colours.

▼ When converting a spot colour in, for example, Indesign to a CMYK mixture, you will get a resemblance of that colour. But if the result on press has a colour deviation of $\Delta E 10$ the colour difference is very obvious - too obvious to be acceptable in most cases. If such a colour difference is acceptable for the designer or print buyer, then you can go ahead and print with CMYK only. But if you expect the corporate logos and other design elements that are specified as spot colours to be 100% accurate (as measured with a spectrophotometer and having less than $\Delta E 2$ in colour deviation), you will need to print (and pay for) those spot colours.

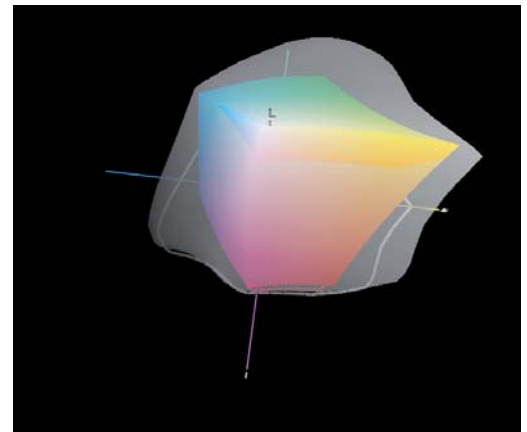
In packaging production most experienced designers are aware of this situation, and try and use only those spot colours that are absolutely necessary. Still, it's not uncommon that a packaging design contains five, six or even more spot colours, on top of the four process colours CMYK. The spot colours are mostly used in vector graphics and solid ink areas, but since most colour printers use CMYK as the base colour set, the spot colours will not be proofed accurately, even if the toner or ink used might have a slightly larger colour intensity than printing inks used in offset, flexo or gravure.

Even inkjet printers with six printheads, CMYK and light cyan and light magenta, will not offer larger colour gamut per se, since the light cyan and light magenta mainly is used to offer smooth gradation of highlight areas. So the colour printer used, or rather it's colour gamut, is one of the limiting factors when trying to proof spot colours accurately.

But what about monitors – shouldn't they be able to render spot colours accurately? Well, again it depends on the colour gamut a monitor can achieve. The primary colours for a monitor are RGB, (Red, Green and Blue), so the complimentary colours CMY are the weak point for a monitor. Even the most expensive monitors have problems rendering some of the spot colours accurately, that is, with a colour deviation of less than $\Delta E 2$ even though they can render many of the colours very accurately, and definitely better than a CMYK-only printing or proofing device.

The substrate is another challenge because a given colour will appear different on glossy coated paper, uncoated paper, vinyl, canvas, or whatever other substrate is used. Ink manufacturers can only advise how a certain ink will appear on known substrates, printed with commonly used printing methods, and then according to established standards. All of this needs to be taken into account in proof production.

Finally there are actually many recipes for spot colours, even if the Pantone ones are the first that come to mind for most people. Toyo and HKS also offer spot colours and Pantone spot colours can be mixed in combinations other than those Pantone suggest. For example to get Pantone PMS 199 (red) you can mix 75% Rubine Red and 25% Pantone Yellow (or buy it ready mixed as P199). However one designer might want to use a



This image shows a 3D view of the colour gamut of 4-colour printing (according to ISO 12646-2 on coated paper) compared to that of an HP Z3100 12-colour printer. The colour gamut of the Z3100 (light grey area) is about 50% larger than the gamut of conventional offset printing (coloured area).

▼ colour made up of 80% Rubine Red and only 20% Pantone Yellow, and this colour doesn't have an appointed number in the Pantone system. In a page layout such a colour is probably called "My Special Red", and the colour management of this special colour becomes quite tricky. One possibility is to find the CIElab values for this special colour, by printing and measuring a test print beforehand.

What are the alternatives?

So what can be done when printing and proofing spot colours? Besides actually printing with all the required spot colours, there are a couple of other options. One is to find a colour proof printer that can offer a larger colour gamut than CMYK only. There are such printers on the market, of which the Kodak Approval is one of the better known. The Approval can proof six colours, using the Pantone Hexachrome colour setup system using CMYK + OG (Orange and Green) as the base ink setup to reach a larger colour gamut than CMYK.

Another well known manufacturer of proofing systems, especially when it comes to packaging production, is Dupont. With its high density inks Dupont offers a larger colour gamut in the colour proofers than is possible with most other CMYK-only proof printers.

Some really promising large colour gamut colour proof printers are the new 12-colour printers from Canon and HP. Our preliminary tests indicate that colour printers with CMYK + RGB print heads (the other five print heads are alternatives of grey and black, and light cyan and light magenta), will produce about a 50% larger colour gamut than a CMYK-only printing device. This means that more of the desired spot colours can be proofed accurately.

Another option is to reduce the number of spot colours when printing. One such system already mentioned is the Pantone Hexachrome colour system. Another is FM6. This technology selects which of the additional RGB colours are needed to match a certain range of spot colours. Other systems replace unnecessary spot colours such as the Kodak Spotless system and Esko's Ink Switch technology, which has been on the market for several years and is well proven now. It calculates how to reduce the ink sets needed, yet still print the required spot colours accurately. Both Artwork Systems and Screen have similar solutions.

One of the latest technologies introduced in this field is the X-Rite MultiColor Separations module for Profilemaker for reducing the number of colours needed when printing with CMYK plus spot colours. In many cases it is possible to reduce the number of colours used, which of course saves time, ink, plates and therefore money for the printer. All of these solutions reduce the number of spot colours used in actual printing, which itself has its limitations. In some designs for example we don't want a solid ink area tagged with a certain spot colour to be replaced ▶

To be able to proof spot colours accurately you need a proof printer with large enough colour gamut, a RIP system capable of managing colour conversions and a spectrophotometer to measure the colours on proofs and on the final print.

with a colour made up with two or three other colours. It might be that the area contains small or inverted text, which risks appearing blurred in print if it's not on a solid background.

What do you need?

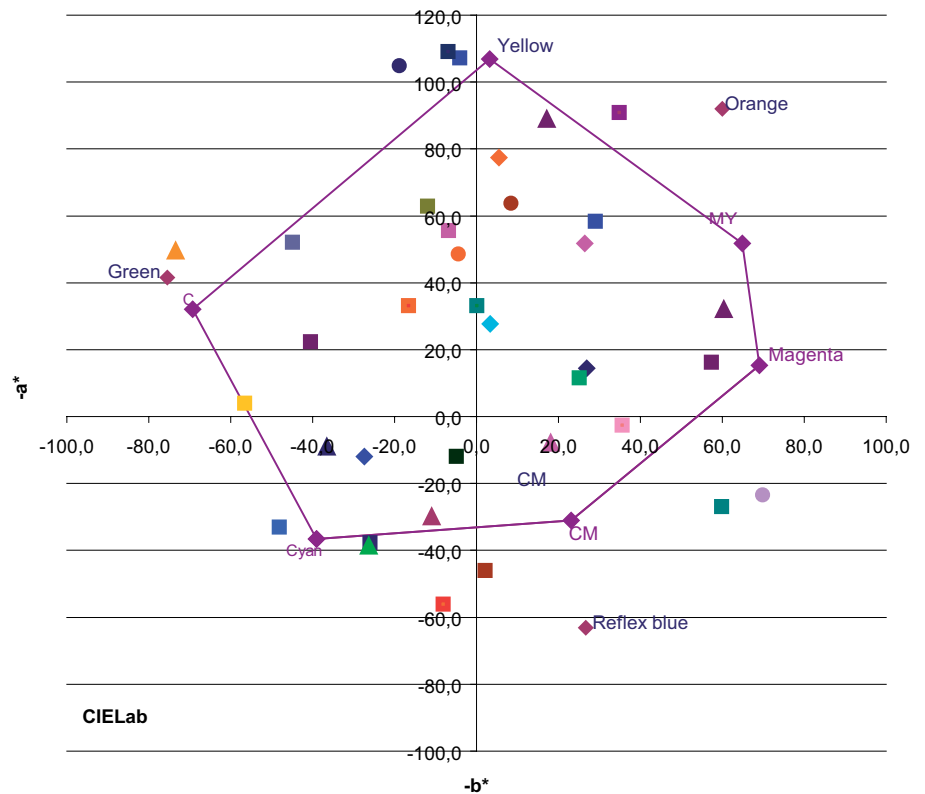
To be able to proof spot colours accurately you need a proof printer with large enough colour gamut, a RIP system capable of managing colour conversions and a spectrophotometer to measure the colours on proofs and on the final print. And of course you need to know the target values of the colours, the CIELab values of the spot colours in question, specific to the printing substrate.

If you hope to proof spot colours on a monitor you need to make sure that the monitor has a large enough colour gamut and that it is correctly calibrated. As with colour proof printers you need colour management software for the screen, for the colours to be accurately rendered on-screen. This can be done in a softproofing system, or by viewing PDF-files through Adobe Acrobat Professional.

The problem is to evaluate which proofing system offers really accurate spot colour proofing. Sometimes systems are claimed to be “Pantone Certified”, which many people understand to mean that they render all Pantone spot colours correctly. But the Pantone Certification only indicates that the device (together with the RIP) can render a selection of the Pantone spot colours “close enough”. What this “close enough” means is known only to Pantone, which does the certifying.

Conclusions

In order to evaluate a proofing system we need reference prints and to know the CIELab values for the spot colours we want to proof and print. To our knowledge such a reference print, or test form, doesn't exist. The Altona Test Suite, commonly used for evaluation of proofers, only contains one spot colour which is placed there mainly to check PDF/X conformance to overprint settings. Most proofing tests check single spot colours on solid ink areas and compare the results to colour swatchbooks (for example the Pantone Color Guides). The CIELab value the spot colour should be is often indicated in design and layout software, but that information in turn depends on paper stock and might even be out of date.



Most of the very bright and colourful spot colours are out of gamut compared to CMYK-only printing. For example, only about 50% of the Pantone spot colours are inside the 4-colour process printing (inner area in the diagram). Coloured markers show a selection of commonly used spot colours.



The Digital Dots Spot Colour Proofing Test

Since we feel there is a need for a test form for spot colour proof evaluations, we have decided to put one together, with the help of a group of specialists in the field. We have chosen a selection of spot colours from the Pantone library, particularly those spot colours that are out of gamut in process colour printing (CMYK only). Pantone has kindly provided us with the relevant aim values for the selected spot colours, and a preliminary test form is about to be completed and then printed under strict supervision. Once this test form is printed according to our specifications, we invite any vendor of proofing systems to participate in a larger test of spot colour proofing capacity. Any printer and publisher with an interest in participating and/or contributing in this test is welcome to contact us in the meantime. We think we have identified a need for such a test form, and hope that this test will help us all learn more about colours and their behaviour in print.

If it turns out to be appropriate to test proof printing systems, and there are enough companies interested, we will publish the results of this project in the Spring. These results will be shared with our network of Publishing Partners worldwide.

– Paul Lindström



Brought to book

The book printing sector is embracing digital printing, but there doesn't appear to be any great rush to take up JDF as Nesson Cleary found out.

It is very tempting to think of the printing industry as a single homogenous entity. But in reality the industry is made up of many different strands, all intertwined together. Take JDF for example, a brilliantly simple concept which ultimately will cover the whole industry.

But it has become abundantly clear that, as JDF has evolved, there are indeed many different elements to the specification and it is unrealistic to expect the entire JDF concept to get implemented overnight. Instead we are seeing parts of the specification being gradually put in place, such as the MIS and prepress links. So far the spec has concentrated on general commercial printing, with other areas having to wait their turn.

Two months ago Laurel looked at how well JDF is progressing in the packaging sector. In this article we examine what impact JDF has made to book printers.

So far there does not appear to be a great rush to invest in JDF amongst book printers. Rod Willet, managing director of Biddles in the UK explains: "We run on standard paper and [to a] standard format so any information about a job, other than the text itself is of limited value - it doesn't change anything in the way that we would produce a job. Our binder has the capability to receive JDF instructions, but even without JDF it can already be set within a minute including putting all the coordinates in. It takes the operators far longer than a minute to organise their work and move palettes in and out, so we wouldn't really get a lot of benefit from JDF."

However, he adds: "We are working with our MIS supplier, Optimus, to develop JDF capability within our existing job instructions, and we have some equipment which is capable of receiving JDF instruction, but it's not something that we've put a lot of emphasis on." So, is there something missing from the JDF spec that book printers might need?

Dave Sips, who deals with Business Workflow Systems for Kodak says that the JDF spec can handle a wide variety of products: "I do think that the JDF specifications as they exist today are complete enough to describe exactly how a book should look like and what type of parameters should be used to describe the necessary settings." And Hans Van Glabeke, Agfa's product manager for Delano, agrees saying: "We do have book printers that are using JDF. I don't think there are specific plans for bookprinting JDF, but there can be a specific need for binding, and this is currently not part of the JDF folding spec so this needs to be added later on. JDF is ▶

“Our binder has the capability to receive JDF instructions, but even without JDF it can already be set within a minute including putting all the coordinates in. It takes the operators far longer than a minute to organise their work and move palettes in and out, so we wouldn't really get a lot of benefit from JDF.”

– Rod Willet, managing director of Biddles

mainly focussing on commercial print, and on mainly sheet fed in the first instance.”

Neil Boucher, IT manager for TJ International, one of Europe’s leading book manufacturers, says that his company does use JDF, and that there is no need for a specific subset within the JDF specification for book printers. TJ International has JDF links between its Heidelberg presses and Iteba MIS, and uses JDF to feed information to and from the presses. He says: “We make sure that each new bit of equipment that we now buy will plug straight into our MIS through JDF and JMF links.” The company is in the process of updating its prepress with an Agfa Delano system. There are two bindery lines but JDF wasn’t up and running when they were put in and both are too recent to replace in the immediate future.

On-demand books

Perhaps the biggest trend in book printing at the moment is the adoption of digital printers for on-demand production. According to Jonathan Harry of RPM, of the 10,000 or so books produced for the UK market, the average book sells around 250 copies a year. “There is a big market for short run, but linked in with distribution and the supply chain. We are looking at developing models of holding minimum stocks and then shipping them direct to end customers. We are calling that system Publisher Plus.” Harry says there is also a growing market for self-published books and vanity publishing, with people producing village histories, poetry collections and so on, and that digital printing is making this economically viable.

Bob Hunt, managing director of CPI Antony Rowe, another large short run book printer, based in the UK, says some major publishers want to go totally digital within a year. “They are saying, we don’t want inventories, we don’t want to have books stored, we just want to make the books that are ordered as and when they are required.” This sounds like an ideal application for JDF, which has the scope to manage all tasks associated with short run production and commercial management.

So, surely those companies that have invested in brand new digital printers would have implemented the brand new JDF standard? RPM, for example, has installed four Xerox printers alongside its lithographic set-up. Harry says: “The thought is, that as JDF is becoming the new standard, all the equipment that we have should be JDF-compatible but it’s a question of having all the set-ups and so on, and we probably haven’t got to that stage yet here.” But he adds: “In terms of automation, taking out a lot of manual intervention and reduction in errors in the process, we are looking at using JDF once we have finished setting up our MIS.”

Anthony Rowe also has its own digital division, CPI Antony Rowe, which has developed its own system. Hunt says it’s more than just an MIS: “We developed it six years ago, before JDF became fashionable. We have a job specification that’s held live on the system as metadata and that’s what processes all the orders. In a way, the normal JDF would be just a job



Control panel for Muller Martini's Sigma finishing line.

ticket that's generated specifically for making machines produce books in a particular way. Whereas our system holds all the data in one place, so as soon as an order comes in we know what the unit price of the book is, what the specification of the book is, and what the job process will be. We are in the process of linking this all into web browsers, so that our customers can actually join in and take advantage of information that we hold about their books, so it's going to be more interactive with the publishers, who are the copyright holders. We are modernising it, but the principle is sound. All the main manufacturers are into JDF in a big way and they've all had a turn at showing us what JDF can do and we are now working closely with Muller Martini on a special project for a streamlined binder with automated makeready and that's going to link in also to our metadata system."

Digital finishing

Most people agree that where the book sector could really benefit from JDF would be in the bindery room. Most of those manufacturers who produce finishing kit have worked hard to ensure that their equipment is JDF-compatible, but there are few printers so far in any sector, let alone the book printing one, who have set up a JDF controlled bindery room. In part, this is because finishing kit tends to be robust and to last a long time, and most people are understandably reluctant to throw out equipment that otherwise works perfectly well, just for the sake of JDF.

Also, most printers are still sorting out their MIS, prepress and press links, and aren't ready to start on the bindery room yet. Aidan Campbell of press and finishing manufacturers Muller Martini says that MIS vendors have also offered many printers a work around, in taking electrical signals for the speed of the machine and when it's stopped and changing that into data which the MIS can read.

However, some finishing equipment is designed for use with digital printers, all of which is now JDF-enabled. Watkiss, for example, has been demonstrating its Powersquare which can be used both inline and offline with digital printers. It produces squareback books up to 10mm thick, or 200 pages of 80gsm paper. Duplo sells its DB200, a compact perfect binder which can produce up to 200 books per hour. Graphic Arts Equipment used the Digital Print World show in London, UK last month to launch its Horizon SPF/FC-200A book production line, capable of producing 4,500 books per hour.

Duplo has also introduced Symbio, an interactive tool for creating a JDF-based 'file-to-finish' workflow that works with Duplo's DC645 cutter/creaser machine. The software generates sheet layouts which can be saved as templates. They are based on the specific capabilities of the printer's output and finishing devices.

There are also complete book printing systems, such as the Sigma Line, from Muller Martini, which is made up of a Delphax CR2000 print engine with a Muller Martini folder, gatherer, binder or stitcher and a three



Duplo has added Symbio JDF workflow to this DC645 cutter/ creaser

▼
knife trimmer. This system is already up and running at Bell & Bain in Glasgow in Scotland.

So, in short, book printers are in the same boat as the rest of the commercial part of the industry – almost there, but not quite ready yet. There have been some notable successes – Henry Ling, again in the UK, has rolled out JDF right through its production process. However it's clear that most book printers have still to fully implement JDF. Many are planning to do so over the next year or two, and everyone claims to be looking for JDF compatibility when buying equipment. It's just a matter of time.

– **Nessan Cleary**



Ifra Right On Cue

An eerie stillness spread throughout last year's Ifra Expo in Leipzig, but the 2006 event which recently took place in Amsterdam was far from peaceful. The halls weren't heaving with traffic all the time, but the show was busy and the atmosphere energetic and excited. From the opening day's evening get-together to the Ifra Director's dinner and the many noisy parties in between, the mood was upbeat and positive.

It was a wonderful show, with masses of new technology strutting its stuff for a crowd showing keen interest. It seems that newspapers are spending again with interest in device-independent content and editorial management high on the shopping list. What interests them most is improved editorial flexibility, for faster multichannel production throughput, with bigger, faster machines or clever process automation. The cost of production investment is falling dramatically and an array of new players are developing systems based on standard technologies, especially those based on second generation web technologies.

**It was a wonderful show,
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The Web's Role

The Internet and the web pervade every aspect of our lives and are the foundation for a new kind of communications environment. It's taken a while, but traditional media are starting to really leverage that environment. Newspapers are exploiting the opportunities the web offers, particularly for multichannel content delivery.

Whether it's for commercial, editorial, production, or general system maintenance, developers are offering all sorts of ideas and tools to help newspapers exploit the web, from basic web services to complex data swapping on the web using XML for content management. Developers too have changed their business models, increasingly working in partnership with many other service providers. The Internet is the basis for revitalised newspaper business models and as Escenic founder Øyvind Ørbaek puts it, technology developers "provide the stage, not the performance."

Escenic is one such company, but Escenic is especially interesting because of its DIY (Do It Yourself) ethic. Escenic has a staff of 60 and partners with around 30 companies offering a variety of capabilities, including Sapient (an e-services consultancy which has 1000 people around the world plus 2000 in India), and others including CCI, Unisys, Infomaker and DTI. Partners and clients use Escenic's web portal technology for content development and publishing. Escenic provides the tools so that customers can manage their own digital environments on the web.

▼ Companies can build their own sites using Escenic's content engine which is Java-based with an open API, and various task modules available as plug-ins (for example, event and entertainment solutions, an ad management tool, chat and discussion forums, and profile management), with an SQL database underneath. Escenic sells on a licence basis, rather than cpus and has over 350 sites using its technology worldwide.

People use this technology to manage content for multiple digital channels including PDAs, mobile phones, television, websites and so on. Version 4.2 has Tansa's spell checker built in and an improved user interface. But Escenic is not alone in building DIY technologies.

Lizard Research is an Australian developer of online ad production technology founded in 1998. It too has a DIY product, one that links advertisers to production via the web. Adlizard is an Indesign Server based DIY ad technology, that uses Indesign's scripting language for automatic ad creation using templates and automated production, all via a browser user interface. It has been upgraded to be 100% .Net native to provide faster connections pooling, for an improved user experience through faster database response. Adlizard also has integrated quality control based on Fotoware's Colour Factory for colour management and approvals management for ads and images, if required.

Like Escenic and many other companies Adlizard has multiple modules which are also available as an SDK (Software Development Kit) for client-side programming. Lizard Research customers can develop Indesign Server-based tools that prime the Adlizard object library and database to automatically populate Indesign documents. Users can use the Adlizard SDK to develop their own applications for producing ads that will work in any sort of workflow. This could be very useful for producing ads localised to a specific edition of a newspaper, especially for regionals with numerous short run editions.

Lizard Research is also developing a booking mechanism for small newspapers who want centralised order entry that allows customers to book ads in multiple publications regardless of the publisher's ad booking system. However it has to be Adsm1 compliant since Lizard are writing this utility using Adsm1. Straight XML might have been a better choice.

There are various Adlizard modules such as spell checking, basic proofing and routing to production, so the developers claim it can fit into any newspaper's workflow. As with a number of other technologies, customers can buy Adlizard and add their own branding using HTML.

Image Digital Publications is an ad agency and producer for News Limited and a number of other big name clients in Australia. For News International the company works with property ad customers using a system based on Adlizard. Adrover produces 70,000 column centimetres ▶



Plenty to celebrate at the Escenic stand.

▼ of property ads per week for over one hundred Australian newspapers, processing a media value of over A\$35 million annually. One customer estimates that previously these ads each cost 75 Australian cents to produce but with the Ad Rover tools that cost has dropped to 17¢.

These are just a couple of examples of interesting web implementations, from developers whose primary domain is the web. But the web isn't only about production data or content delivery to readers. It is also an important tool for managing content development.

Content Management

Sophisticated content development and delivery is fundamental to multichannel publishing. Several developers are starting to really push the boundaries, exploiting editorial possibilities using web technologies. We were especially impressed with the following companies, but there were advances across the board from the leading editorial systems companies.

DTI is celebrating 25 years in the business and had much to say about its work with Caché database technology, previewed at Ifra last year. DTI's systems are wholly based on Caché and Zen, an XML-based web application development environment. DTI's Ensemble combination is an integrated engine that manages communications between Caché databases and others such as Oracle. It now underlies many of DTI's modules: Ad-proof, Adready, E-Archive, E-Writer, Speed URL, and E-Budget, making them simple to install for highly efficient data management and network based data interchanges.

Caché Server Pages are created dynamically combining data from the database and using the Enterprise Caché Protocol (ECP) to manage content distribution to servers. It works rather as Citrix does for data but, unlike Citrix, supports design intensive content such as newspaper pages. ECP uses shadow technology so it only shares changed data rather than completely mirroring editorial databases. This keeps them in sync without requiring large bandwidth or heavy data volumes and traffic across the network. The Telegraph Group in the UK is working with this technology to support multichannel production for editorial and advertising. The Group expects to go live once it completes the planned move back into central London from the Docklands at the end of November. We will be taking a closer look then.

DTI launched Liquid Media, which is partly based on its Ensemble technology, at Ifra. Liquid Media is a suite of publishing tools consisting of Newspeed 6, Adspeed 6, ClassSpeed 6 and Webspeed, which is based on Escenic's technology. Liquid Media enables content to flow from wherever it is created and stored to anywhere else, adapting shape and format to the target output channel. Content doesn't need to conform to a specific data standard, so it has infinite output flexibility. ►



No sign of chaos at the CCI booth.

▼ Output flexibility is the primary design characteristic of Eidos Media's Méthode XML-based integrated newsroom and content management technology. Eidos manages content using specific output channels and content formatting using XML. Méthode combines a knowledge management platform with editorial functionality for output to web or print. It also has a news management facility to help plan news coverage and allocate resources, plus workflow management, and planning tools for editorial and advertising.

To its already vast array of options for content creation, control, management and delivery Eidos Media has now added e-paper, blogging and podcasting for news delivery.

Protéc has had a string of successes lately but still is relatively unknown beyond Spanish language markets. However there are nearly 10,000 journalists working with Protéc's Milenium suite of tools. We'll tell you more about what some of these journalists are up to in our next issue. Milenium is a cross media publishing system based on standard technologies. There are modules for editing, production, communications, advertising and archiving, all of which are tightly integrated. There are over 350 newspaper sites working with this technology, worldwide and Protéc partners with a variety of technology companies including hardware, software and services companies. We are seeing a rise in this sort of approach, particularly as new players come into the newspaper business, offering services based on their IT expertise.

Profium is a relative newcomer to newspapers and comes from the IT business. This Finnish company was founded 1996 to develop content management systems based on Semantic Web technologies for content sharing, archiving, metadata management and content routing. The company recently started serving the media and news agency sectors.

Profium's News Solution works either on its own or integrated with an editorial or archiving system. It matches customer profiles with content so that each customer receives their own news. The various modules allow the newspaper to set up specific content routing and channels for customers, and to charge according to the content delivery preferences.

Digital Archive is a central metadata repository for finding content regardless of format or location. Digital Archive can be set to watch for certain types of content that can then be either published automatically to a phone, PDA or website, or simply stored in the archive.

The Metadata Server is a tool for managing and distributing digital content using Semantic Web tools. Users access the data it collects by meaning rather than search words. This technology provides consistent metadata and it can act as a metadata server for other IT systems. ▶

It matches customer profiles with content so that each customer receives their own news. The various modules allow the newspaper to set up specific content routing and channels for customers, and to charge according to the content delivery preferences.

▼ Profium's technology supports all content types and runs under Windows or Linux, with support for Oracle, SQL Server and PostgreSQL databases. Profium is a relative newcomer, and it's definitely one to watch.

Tera isn't a newcomer but it is still one to watch. The company has long been aware of the transition of editorial systems to the web and has been working on web-based content management to support it. Tera is partnering with Microsoft to develop GN4, a format-agnostic portal for content submission. This basically puts the Tera publishing system onto a handheld device or Windows Mobile smart phone. Journalists can work remotely to keep track of contacts, appointments, and to submit and retrieve copy. The portal handles all data management with plug-ins to do format conversions. A newspaper front end system in your hand! It is also handy for publishing content to websites et al, even stuff that does not make the page, and is an ideal tool for ad sales people. They can present a sample ad to a client who can then share it with others for approval before routing it to the web and/or print production.

Tera's XML and article-based content management system, GN3, continues to be developed and has a number of improvements (text to path functions, object rotation and layer handling), plus additional features such as contact and address management. There is also a new version of GN3 for the magazine market, with more liberal design controls for creating pages that it wouldn't be possible to produce on a newspaper press.

Tera has also added a Newsroom Manager that sits in front of GN3. This task and assignments module is for managing resources and elements as they are created with task lists and user acknowledgements at user login.

There are relatively few developers working with non-Roman language newspapers, but we came across a new one at Ifra. Summit is a 14 year old company with origins in language and font expertise, particularly for non-Roman based alphabets. In 1999 Summit got into newspaper software development for one of its customers and because Atex and CCI Europe, both of which have a presence in India, lacked the appropriate language expertise.

Summit's technology is Windows-based and uses SQL Server or Oracle databases. It has a Word-based front end with a wrapper around it, so Summit calls it Word Pro and either Xpress or Indesign provides the pagination engine, according to the user's preferences. The DAM system is multilingual, using a single database to support multiple languages. The system is used at newspaper sites using non-Roman scripts throughout India, Thailand, Sri Lanka, Bangladesh and Pakistan, primarily on the basis of Summit's language expertise.

This basically puts the Tera publishing system onto a handheld device or Windows Mobile smart phone. Journalists can work remotely to keep track of contacts, appointments, and to submit and retrieve copy The portal handles all data management with plug-ins to do format conversions. A newspaper front end system in your hand!

▼ Summit was selling complete ad, editorial and digital asset management package at Ifra for €80,000 as part of the company's launch into Europe and was introducing the Japanese version of its technology. Summit's technology manages digital content management across the web and terrestrially. There are three components to its Media Suite designed for small to medium sized newspapers. Ad Pro handles everything from booking to invoicing, both in print and on the web. Asset Pro manages assets and archiving, and News Pro manages wire services, bureaux and syndicated news, including text and images.

It seems that content management is the order of the day, using databases overlaid with a management layer and a user interface. The nature of the management layer and interface is what distinguishes systems for different applications. To this basis developers add task-specific modules, but few companies add business management. Wedia is an exception.

Wedia is a revamped Datox, the 25 year old French systems company specialised in newspaper production. The Wedia technology is called Open3 and is an information system tailored for newspapers. It includes modules for all aspects of editorial and advertising management, plus tools for back office management and business intelligence. Wedia's Drive is a rule-based system to help optimise production planning, using rules to provide analyses of all business activities. It works in conjunction with Pulse which manages back office tasks and Slate which manages editorial topics and planning. Together these tools provide information for improving production through tighter process control and automation.

Control & Automation

It's an age old theme but digital technologies have given new purpose to control and automation. It's no longer just about improving existing production patterns, it's about facilitating new ones and helping newspapers to serve readers more comprehensively across media channels. Increasingly this is through partnering to automate the whole supply chain and to provide the flexibility to accommodate new business options.

Newspaper printers have to balance quality, speed and flexibility. One of the most radical press developments introduced in recent years to help achieve this is the Goss Flexible Press System (FPS). Goss has taken its first orders for this press which can operate as either heatset, coldset or in combination with automatic cut-off and register and web tension control.

Both Goss and KBA are building new presses that have automatic, or at least much simplified, plate changeover which, for newspapers, has replaced platemaking as the new bottleneck. The KBA Commander CT is a conventional wet offset press based on KBA's compact design, with automated plate change and was announced at Ifra.



Goss showed off its flexible printing system.

▼ Developments in CTP still keep coming, but they are more incremental than mindblowing. Agfa's new Advantage DL now images up to 200 plates per hour. It has a direct load facility with up to 750 plate capacity (it was 500 before).

ECRM launched the violet Mako Newsmatic HS which can image over 120 plates per hour, and Krause has introduced a new processor for photopolymer plates and remote diagnostic software. Since the internal release of Bluefin, Krause has sold several dozen of these processors. The highend model processes over 320 plates per hour, and is suitable for either newspaper or commercial plates. Netcare provides access to diagnostic software for all Krause CTP systems worldwide.

Krause also announced that it was ramping up its sales activities, particularly in Asia (it is already the dominant CTP supplier in India) and the US. Sales have risen eight fold over the last ten years and Krause expects to have installed over 500 platesetters by early 2007.

A key part of this strategy is an alliance with Fujifilm intended to knock Agfa off of its top perch in the newspaper segment. The arrangement is for sales of platesetters and, although details are sketchy, software cooperation particularly for workflows based on Fujifilm's Sentai workflow technology, is in the offing.

Screen made its newspaper debut at Ifra with a version of its Trueflow workflow technology, Trueflow Rite News, driving the new thermal imager previewed at Ipex.

Whether they choose violet or thermal imaging, CTP is the obvious route for newspapers to take in order to gain time and people savings. Automation reduces subjectivity and standardises production processes, but control and automation need software as well as hardware. Software advances these days are all about convenience and speed for an automated workflow and newspapers are continuing to invest in software. Agfa's software sales for example are 10% ahead of target.

Utilities such as Markzware's new Windows version of its software for converting Indesign to XPress 7, work in conjunction with more elaborate systems such as Onevision's new JDFnet. This is a fully automated ad production workflow based on JDF. This seems like a far more sensible approach than to use Adsm1 the data exchange initiative for managing the electronic data transfers for print-media advertising management. Although the idea of Adsm1 is laudable and new versions keep coming out, Adsm1's success depends on support from the agencies, which so far hasn't been forthcoming.



The high end version of this Bluefin processor from Krause can handle over 320 plates per hour.

Digital printing

Another area where support hasn't been forthcoming from newspapers is digital printing. That fortunately hasn't stopped innovation. At Ifra both the Kodak Versamark and Océ Variostream 9130 (mono) presses were shown but it seems the time is still not right for digital newsprint. A recent Agfa customer survey confirms this with a mere 12% of contributors expressing an interest in digital printing. However, it is just a matter of time before print runs drop far enough and edition and content customisation rise sufficiently for digital printing to be viable.

Quality Assurance

In that same survey of Agfa's, 22.5% of respondents wanted enhanced print. Printcity announced a project at Ifra designed to provide the economic underpinning for added value in newspaper printing. The Printcity group's Value Added Printing of Newspapers (VAPON) assesses various value addition techniques in order to provide an analysis for possible growth opportunities, particularly for semi-commercial applications. The work focuses on the value that can be attached to perceived quality, and the economics of various value added printing techniques. It strives to work out how much more an advertiser will pay for a given value added printing technique. The group expects to publish its findings next year.

In the meantime, much work is being done further upstream to provide quality control throughout the workflow. Agfa's Arkitex production control technology is installed in over 30 countries and Agfa is now using this name with all Agfa newspaper workflow and software products.

Arkitex Core Solution version 5 was new at Ifra sporting a variety of new process management modules: Ad Centre and Ad Control for digital ad delivery and cost management, Afirma for output consistency, and a new Windows version of Intellitune, Intellitune X, for image processing. The Mac version of Intellitune is now installed at over 450 sites.

Arkitex Opti Ink is a new module for reducing ink usage by 10-25%, which converts colour spaces and swaps CMY inks for black with support for spots. Opti Ink is basically GCR but with additional patented techniques for optimising ink usage.

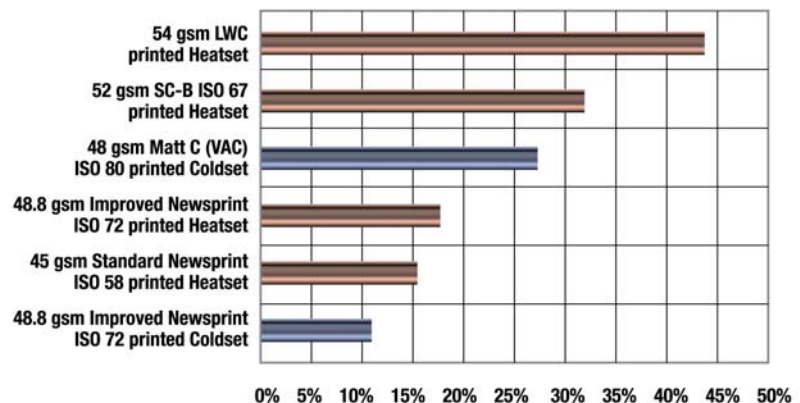
Agfa also announced that it has over 1000 users of Sublima worldwide, including 200 newspapers. An enhanced version is being developed for ISO 12647-3 newspaper users and is due early next year for N91V and Lithostar LAP-V plates.



Kodak is trying to position its high speed Versamark inkjet for digital newspaper production.

Added value

ROP Advertising premium from higher quality



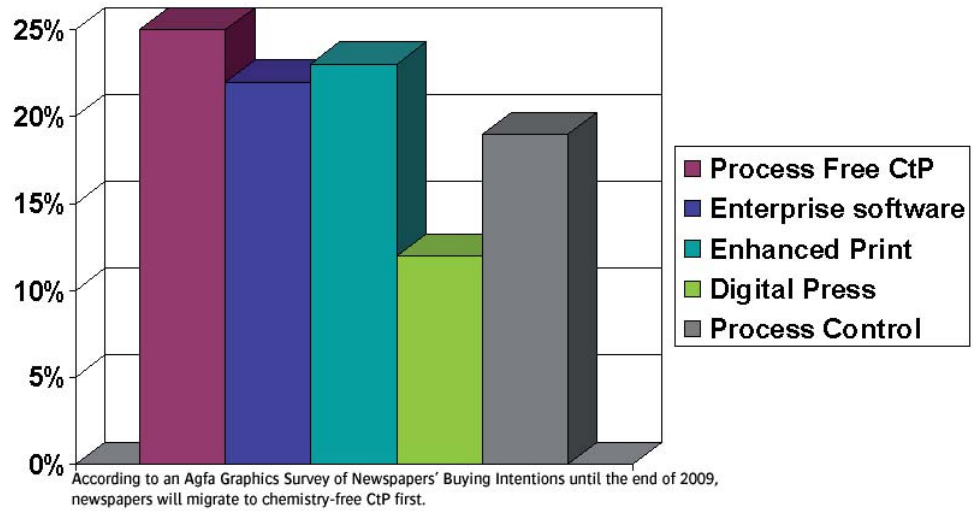
Printcity's Value Added Printing of Newspapers initiative tries to measure how much advertisers will pay for value added printing techniques.



Alwan and Binuscan also showed ink optimisation software, and this seems to be a growing business. In general developers analyse an ICC output device profile to calculate the ink usage. The clever thing is to be able to save ink costs without compromising colour quality. All of the suppliers we spoke to at Ifra naturally claim to be able to do this.

Consumables

Ink savings are only part of the picture though. By far the greater attention at Ifra was paid to chemistry or process-free plates and according to Agfa's survey, 25% of respondents wanted process-free plates. Agfa's violet plate for newspapers was shown with a re-designed gumming unit based on a modified photopolymer processor, filled with gum instead of processing chemistry. This plate and its commercial equivalent is due in 2008, most likely at Drupa.



Agfa estimates that 75% of newspaper plates worldwide are imaged with visible light and that with Lithostar it has a 60% worldwide market share in the newspaper business. Some 36m square metres of Lithostar and N91v will be sold this year and Agfa expects total sales of Lithostar to reach 150m square metres in 2006. Since its introduction over 500,000,000 Lithostar plates have been on press! Agfa is continuing to develop both silver and photopolymer plate technologies and there are 1750 Agfa labelled machines installed (Polaris is built for Agfa by Punch Grafix) at newspapers.

Kodak launched the latest version of its Thermal News plate. Thermal News Gold is designed for both newspaper printing and commercial work. The plate has a resolution of 1-99% at 120 lpi and supports 36 micron stochastic printing for newspapers and 25 micron stochastic for magazines. The plate is rated for 200,000 impressions and images quickly with less power than its predecessor.



Kodak's Thermal News Gold plate is aimed at both commercial and newspaper printing.

Last Orders

All this and so much more! This year's Ifra was for the first time in a number of years, confusing and overwhelming with exciting developments in all sorts of areas. It was impossible to get a look at everything, but many of the companies we did manage to see were announcing important sales. Here are a few of them:

News International will use Escenic technology to provide web publishing and editorial tools for the Sun, the Times, the Sunday Times and the News of the World. Nerikes Allehanda has signed a letter of intent with Escenic for the Escenic Media System at all four of the group's newspaper



sites, and JP/Politiken Hus has launched a new business portal based on the same technology.

DTI is supplying Austria's new title "Ostereich" with front end technology for editorial, advertising, production and output management. This newspaper is the first new central European title in many years and uses a combined press (heatset and coldset) to print 350,000 weekday and 700,000 Sunday, with almost 85,000 paying subscribers.

Krause has sold its 50th platesetter in Scandinavia to Sydsvenskan Tryck in Sweden.

Atex has sold what is believed to be the largest ever single prepress system ordered, with 2500 advertising seats going into the Trinity Mirror Group in the UK.

In the US, Agfa is seeing a steady migration to CTP based on the company's Advantage violet technology. And in Latin America Agfa has sold one hundred newspaper CTP systems.



Goss's first FPS is going to Independent News & Media in Northern Ireland and the second to F.D. Hoekstra Boom in Holland.

Eidos Media's Méthode is to be installed at HT Media in New Delhi, home of the Hindustan Times. Le Figaro in Paris has now gone live with Méthode and Edipresse in Switzerland is transferring its entire magazine portfolio to the technology.

Tera's GN3 system installed at Northcliffe Newspaper in the UK is to be extended and the company has sold additional systems for the E Polis series in Italy. This newspaper has a group circulation of over one million copies daily.

Following many years of incremental improvements, we are now seeing integrated, holistic systems that take advantage and leverage all of the pieces in the puzzle, whether it's the front end, plate production or closed loop quality control. Newspapers are taking control once more, delivering on their traditional editorial promises, harnessing new technologies to deliver complex media services for readers and advertisers.

Browser views of Liquid Media data flow like this one are among the many tools DTI uses to map out and trace each step of a process so newspapers can better analyse and utilise data that has traditionally been isolated in disparate systems and/or multiple locations.



Technology is vital to success and has been largely responsible for the huge array of titles serving readers all over the world, but lately it has given many newspapers cause for serious concern because it provides the foundation for an alternative and competitive media. Wallowing in worries about falling circulations and competing advertising media has distracted the industry, in many instances to its cost.

So it's easy to forget newspapers have still got some serious competitive clout. They are in the business of news and information gathering, analysis and dissemination. This is what they do and what they do very, very well. Technology may have put them in a new and possibly invidious competitive position, but they are responding with new business models, exploiting editorial strength to leverage their production and distribution efficiency, whatever the format or medium. Ultimately it comes down to serving people with what they want, when they want it and in the format they want. To do this well takes rather more than a search engine; it takes a newspaper.

– **Laurel Brunner**



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