Digital Dots

Spindrift

Perambulating the Graphic Arts industry since April 2003

Volume 9, Number 6 • 20th October, 2011

News Focus • Opinion • Reviews • Technology • Interviews • Ranting • Psychotherapy • Hoopla

Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma, which is living the results of other peoples' thinking.

– Steve Jobs, 1955-2011

Dear Reader,

The aftermath of Steve Jobs' death has been a terrible, black time. We all knew he was ill and unlikely to last long, but the announcement of his final end still came as a deep and chilling shock. His achievements are exhaustively detailed and debated online, but we have put together some thoughts of our own. Steve Jobs' contribution to the sum of human experience and progress goes way beyond iStuff.

We have recently seen a couple of examples of other companies and business leaders also thinking differently, one very large and one very small. Their tales are told here. For us these enterprises are further evidence that the graphic arts industry is undergoing a new iteration, its colours running brighter perhaps, and its future less uncertain than it has been in recent years. This is not because of any particular technology, but rather the endless inventiveness of the companies involved with print media production.

Enjoy.

Laurel, Nessan, Paul and Todd

In This Issue

News Focus

EskoArtwork has been demonstrating a new iCut Automate feature for its Kongsberg wide format cutting tables. This automates all the components found in the iCut software suite, including, Preflight, Layout and Vision Pro, into a single workflow, with less operator intervention required and fewer potential manual errors. The new iCut Automate can also be integrated with Management Information Systems, enabling automatic job creation and the submission of job parameters to the workflow via XML data.

Agfa is to launch a SaaS (Software as a Service) solution, Arkitex Eversify, which will allow publishers to deliver their newspapers to a variety of tablet and smart mobile devices. Content is captured or delivered from any content system in use today at the newspaper – be it editorial or Web – by the Arkitex Eversify server. The data is analysed and automatically processed to produce an issue that is ready to preview and edit if necessary. It will be available in Europe by mid-2012.

Swiss Post, the largest Swiss logistics company, will implement a new concept for personalised newspapers at the end of November. A one-year market pilot will allow the commercial viability of a printed personalised newspaper to be analysed in detail, and, if successful, final implementation to be carried out. The newspapers will be printed by Swiss Post Solutions AG, a subsidiary of Swiss Post, using an Océ Jetstream 1000.

Dubsat has launched Adsend 7.5, a new and improved version of its advanced print advertising validation, delivery and workflow platform. New features include an optional commercial press conversion using ICC colour profiles, a unique publisher-branded online portal capability and seamless booking exchange integration which automatically reconciles an ad with its specific booking number, so agencies don't have to rekey booking details and publishers don't have to chase advertising material.

Heidelberg has expanded its plant at Qingpu near Shanghai to serve growing demand from Chinese print shops. This third construction phase takes the plant's production area to some 45,000 square metres - a threefold increase in the space of just four years. Every third machine sold by Heidelberg in China now comes from Qingpu.

Agfa has released v9 of its newspaper RIP, Arkitex Graphix. This offers increased accuracy of colour output and the ability to run on 64-bit machines, and can handle a wider range of PDF types. It is based on the Harlequin RIP from Global Graphics. It also incorporates Agfa's Sublima screening which can run 1800 dpi screens and high-quality elliptical dot screens specifically for photopolymer plates.

Agfa has also updated its Apogee prepress workflow to v7.1 with enhancements to its preflight engine and integration to Enfocus PitStop, as well as support for a wider range of inkjet proofers and improvements to the JDF-led imposition.

German MIS firm **Hiflex** has a cloud computing enterprise solution, which allows full access to the MIS via the internet - from anywhere and at any time. In theory, companies can lower their operational costs by eliminating investments in IT infrastructure. Users can concentrate on their core business, reduce the costs of IT administration and eliminate costs of obsolescence as hardware and software are outsourced.

Spindrift ISSN 1741-9859

A very special newsletter for Graphic Arts, Prepress, Printing & Publishing Professionals, published ten times a year by:

Digital Dots Ltd
The Clock Tower • Southover • Spring Lane
Burwash • East Sussex • TN19 7JB • UK
Tel: (44) (0)1435 883565

Subscriptions:
Spindrift is a digital only publication, distributed in Adobe .pdf format. A ten issue subscription costs €190 and can be obtained by going to **www.digitaldots.org** and subscribing. Discount multiple subs are also available.

Publisher – Laurel Brunner – **lb@digitaldots.org**
Editor-In-Chief – Nessan Cleary – **nc@digitaldots.org**
Technical Editor – Paul Lindström – **pl@digitaldots.org**
Production/Websites – Todd Brunner – **tb@digitaldots.org**
Subscriptions – Helen Moderski – **subs@digitaldots.org**

OneVision has updated its Asura workflow system to v11.5, which now gains an option to create so-called Lean PDFs: thanks to a new sophisticated calculation method, these PDFs are being considerably reduced in size while at the same time they are optimised for use on tablet and mobile devices or as an ePaper.

EFI has launched its Monarch Portal Internet-based sales tool, designed to extend the power of the Monarch Print MIS/ERP to remote sales personnel. The Monarch Portal specification tool collects, organises and validates the information required for accurate quotes and successful production. Fields in the specification are mapped to the Monarch estimating and planning system, providing an accurate, fast quote and rapid order entry for even complex jobs.

EFI has also shown off a browser-based version of its Printsmith MIS. Printsmith Vision includes estimating, quoting, order tracking, scheduling, production forms, data collection, inventory, costing, and invoicing tools. The system utilises a familiar browser-based interface so it can be easily accessed from anywhere, and makes daily processes easy to learn and use.

Apple has launched its next generation iPhone 4S, which mainly adds a faster processor and higher resolution camera to the existing iPhone 4. It also comes with iOS 5, which brings a number of features such as voice recognition, and a new cloud storage system called iCloud. This last lets you automatically synch music, photos and documents to the cloud, which are then available to multiple Apple devices to use. Over 4 million iPhone 4Ss have been sold already.

Adobe has launched its own cloud initiative, the Adobe Creative Cloud, which will act as a hub for a number of cloud-based services, and will include 20GB of storage. There's also a new collection of six Adobe Touch apps, including a light Photoshop edition, designed to run on Android tablets with iPad versions to follow early next year.

Mutoh has introduced 54ins and 64ins versions of its popular ValueJet wide format printers with the 1324 and 1624 models respectively. These new 4 colour ValueJet printer models incorporate a new 1440 dpi piezo drop-on-demand print head which is capable of producing ink drops ranging from 3.5 pl to 35 pl for a maximum resolution of 1440dpi and a top speed of 29sqm/hr for the 1624 (27sqm/hr for the 1324). Other features include a newly developed keyboard and an automatic sheet off mechanism.

Mutoh has also shown off two new textile printers, the 64ins ValueJet 1628TD and the 104ins ValueJet 2628TD aimed at soft signage and garment production. They can print on non-stretch fabrics with open or closed structure, such as display fabric, flags and decoration textiles, thanks to an ink gutter positioned under the printing path, which collects all the ink that is not absorbed by the fabric. These printers can also be used for sublimation printing onto transfer paper.

Agfa has shown off its latest Anapurna wide format printer, the M2540 FB, a flatbed printer with a quick-change vacuum bed, six colours (CMYKLcLm) and white ink. It has a maximum throughput of 45sqm/hr on media up to 2.5x1.5 metres. It is priced to attract entry-level purchasers as well as established users switching to the latest UV technology.

EFI has launched the Fiery XF ProServer line-up for its Vutek super wide format printers, designed to optimise RIP speed and printer throughput. It integrates with other EFI products such as the Pace management system and Digital StoreFront web-to-print platform.

EskoArtwork has a new version of its WebCenter online collaboration tool, which is aimed mainly at packaging printers. This now gains EskoArtwork's Visualizer 3D technology for demonstating realistic packaging mock-ups. It also includes the WebCenter iPad App for mobile users to view and approve packaging designs.

Dscoop (Digital Solutions Cooperative), the cooperative of HP Graphic Arts customers which has been operating in North America and Asia Pacific, has now launched in the Europe and Middle East region. Membership, free until drupa 2012, includes online resources (forums, case studies, Webinars and support programmes) and the Dscoop EMEA Annual Conference, in which members

meet face-to-face for extensive education and networking opportunities.

Agfa has demonstrated a new thermal CTP plate, Energy Elite Pro, which is up to 20% faster and supports greater variations in exposure conditions. The printing plate ensures excellent tonal range and high line screen capability thanks to an enhanced dual layer coating technology. The chemical resistant second layer and the improved mechanical resistance enable longer run lengths under aggressive press conditions including UV inks, without the need for baking.

Four Pees has released v4.2 of PrintFactory and ProofMaster which features a new "Production Bar" at the top of each document that allows selecting cutting device, printer, medium and mode directly in the document window, launching the Driver Settings dialog. It is now also possible to print multi-page documents on desktop printers.

Soft proofing vendor **Remote Director** has launched an online version that lets customers start proofing for free though regular users will want to pay for the more serious features such as reporting and version comparison and the ability to work on several projects at once.

VIGC, the Flemish Innovation Centre for Graphic Communication, has released a set of tools for testing colour management workflows. The VIGC50 eXtreme Color Suite comprises 50 photos for testing ICC profiles, colour conversions and colour management workflows. It demonstrates differences between profiles, including blues turning to purple, yellows acquiring a green tone, reds turning into magenta, and skin tones becoming more yellow.

News Analysis

The concept of cloud computing has been around for a while but the current roll-out of Apple's iCloud service, which will reach literally millions of consumers around the world, is going to drive a much more widespread uptake of cloud storage. Apple has tried to sell cloud services before, most notably with it's MobileMe offering, but where this attracted some loyal customers it didn't really do it for the masses.

For iCloud Apple built a dedicated server farm, which was sorely tested on the first day that iOS5 was released. Also, iCloud is free, or at least the first 5GB of storage space is. This has become a popular business model, with many other cloud services, such as DropBox, also offering some free storage and charging for space thereafter.

But crucially, iCloud is built directly into the iOS5 system which now powers not only the new iPhone 4S, but also the older iPhone 3GS and 4, the iPad and recent iPod Touch and of course the new Mac OS X Lion system. There's more to iCloud than just storage, as it also provides automatic wireless synchronisation between all these devices for a number of applications, including iCal and Pages, with the promise of more applications to come later. Moreover, by allowing these devices to synch with the cloud Apple has cut the umbilical cord allowing the iPad to be used as a standalone computer with no need to have another computer to synch with. This, of course, will help to boost the iPad, and by extension tablet computers in general, as a post-PC device. Apple will also use it's cloud service to deliver software updates, thereby saving a lot of logistical costs, as well as selling more music, films, apps and other services.

Not surprisingly, other consumer companies are also jumping aboard the bandwagon, with, for example, Adobe also announcing a new cloud service, with a whole bunch of tablet apps including one for Photoshop. Adobe has also bought a number of companies, including Nitobi, responsible for PhoneGap, which will help it to develop further mobile services.

One can only hope that the next stage would be for some level of integration between these services, such as better synchronisation of documents between iPhones and Dropbox.

But the important thing to note is that as more consumers become used to the concept of cloud computing, so more corporates will also look to the cloud to simplify their IT requirements. MIS developer Hiflex has already announced a cloud-based version of its MIS, while EFI has Internet portals for some elements of its MIS. Moreover, just imagine what a cloud-based web-to-print solution could do for the photobook sector as consumers become more comfortable with this way of working.

Picture This

Nessan came across this chase of lead type in a museum in south Wales while on holiday earlier this summer. The museum documented local life and the tools that had been used way back in olden times. This particular page was for the front page of the local paper back in 1992, which doesn't seem that long ago.

Nessan started work on a local newspaper north of Liverpool in 1994 where individual stories were printed a line at a time and then pasted into position to make up a page. (He still remembers having to use a scalpel to literally cut out any errors in the text when proofing.)

By 1996 he had moved to a magazine covering the graphic arts and started writing about the new fangled computer to plate concept and whether or not that would ever catch on.

He also covered digital photography at a time when all the serious photographic magazines talked about film as being 'real photography' and said that digital would never be as good. Yet by 1999 Nikon had released the D1 at an affordable price that would see professional photographers abandon film within just a couple of years. Needless to say this picture was taken on a digital SLR.

In this month's news there's a story of a Swiss newspaper printed on an Océ inkjet press. Sometimes it's worth reminding ourselves just how quick modern technology does move in this business.

A Review

Barbieri Spectro LFP

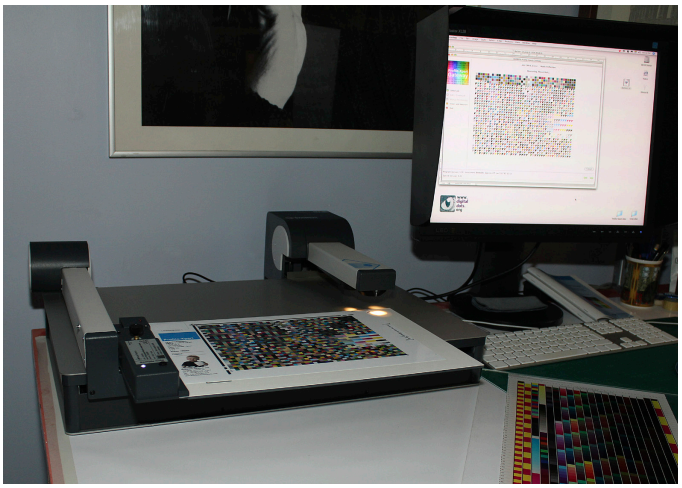
At Digital Dots we've tested different spectrophotometers for a long time, but one make, the Italian brand Barbieri, has managed to stay well under our radar. Since we started to test large format printers a couple of years ago, this brand has come up in discussions more and more frequently. And when failing to read colour charts printed on plexiglass with any of the spectrophotometers we had at hand, we knew for sure we needed to ask Barbieri if they had a spectro that could read transparent substrates. And low and behold – the Barbieri Spectro LFP was the answer to our needs.

There used to be spectros on the market that could read transparent substrates, like the Gretag Macbeth Spectrolino, but this model has been abandoned some time ago. There are also some solutions like the software SpectraShop by Robin Meyers, which try and use existing and popular spectrophotometers from, for example, X-Rite, but if you want a solution that is fully supported by the manufacturer of the device itself, it's probably safer to turn to Barbieri directly.

An all-round solution

The Barbieri Spectro LFP is manufactured to specifications that suit users of large format printers and can measure a wide range of substrates. The Spectro LFP has holders for both reflective and transparent materials – actually two different holders for reflective materials – one for thin substrates, and one for heavy or thick fabrics. It also has a special holder and light source for transparent materials, important when producing output for backlit mounting of posters and PoP prints, or when printing directly onto glass.

While the Barbieri Spectro LFP is particularly suitable for large format printing, it doesn't mean it can't be used for more conventional types of printing. In fact the software, with versions for both Windows and Max OS, has functions



The Barbieri Spectro LFP is a flatbed spectrophotometer, where the sensor stands still while the table with the substrate is moved into measuring position.

for most types of printing as well as support for calibration and characterisation of monitors. And yet Barbieri has some way to go until it has made its brand better known among offset printers, where other brands like X-Rite and Techkon traditionally have a stronghold. But since more and more traditional offset printers are adding digital printing to their portfolios, as well as large format printing, Barbieri definitely has a window of opportunity.

The Barbieri Spectro LFP is a flatbed scanning device, where the sensor stands still while the table with the substrate is moved into measuring position. What we especially like about the Spectro LFP is that it is very easy to change the holders for different types of substrates, as well as change between using, or not using, the UV-filter, and switching between measuring with a polarising filter or not. It is also able to switch between different apertures, from 2mm up to 8mm.

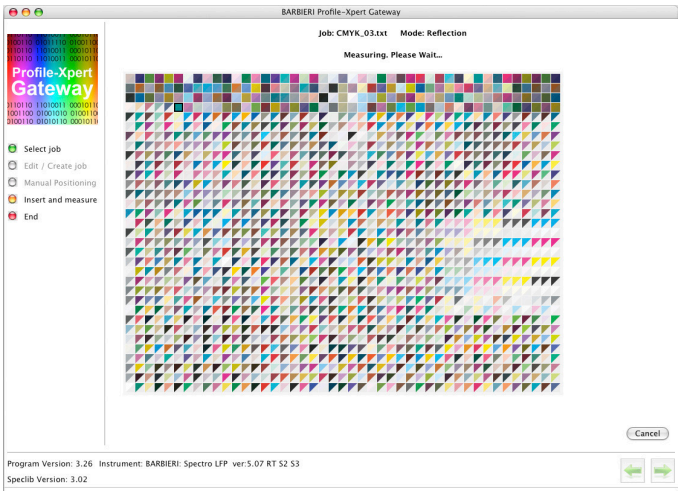
The control software, called Profile Xpert Gateway, can either be used in a simplified Easy Mode, where the user is guided by a wizard step-by-step, or advanced mode where the more experienced user can choose between the different options along the way. The software can also read many of the RIP-specific file formats, for use with well-known RIP-systems like Onyx, ColorGate et cetera. Many of these have direct support for the Barbieri Spectro LFP as well. You can even use the competing product X-Rite ProfileMaker together with the Spectro LFP. You just have to make sure that the reference files use the sequence of data that is expected by the software!

Measurements are typically made in automated mode thanks to guides on the measurement targets, but single spot measurements can also be made. On top of this you can switch between three measuring modes, depending on substrate and ink used. The default mode is the Fast Mode, where the measuring head just barely touches the surface and scans the image. The second mode is similar to the first one, but the measuring head never touches the

It's very easy to change and mount UV- or polarising filters on the Spectro LFP.

surface. This is useful for sensitive or sticky materials. The third mode is the Up-Down mode, where the measuring head moves up and down between each measurement. It's used for very sensitive materials, but also means that the measurements take a bit longer.

We were particularly interested to test the Barbieri Spectro LFP on plexiglass, and here we entered a whole new world. While the instrument is fully capable of this, there are several considerations the user has to take into account. One is the media thickness, and another is what side of the substrate the print is made on. A third complication can be if there is a white backing printed on the substrate, to make it possible to view the image both backlit and with normal light conditions. Barbieri has



The control software, Profile Xpert Gateway, can be run on both Windows and Mac OS X. In the Easy Mode the user is guided step-by-step through the measurement and profiling process.

published a very useful guide called "How to measure Glass/Plexiglass", free to download from its website, which is very useful.

We are far from having completed testing all of those situations, but at least we have found the right instrument for the job. It has taken us a while to make acquaintance with Barbieri, but so far the experience has been very positive.

The Spectro LFP comes in several different packages, but a base version is priced approximately at €5,600 exclusive VAT through distributors worldwide.

Green Shoots

CEPI, the *Confederation of European Paper Industries*, has secured EU funding to develop Product Footprint Category Rules (PFCR) for paper and paper products. Such rules are designed to provide technical guidance on how to conduct a paper product environmental footprint study, however they are exclusive to European papers. The final PFCR for paper should provide clear guidance for European paper companies who want to conduct environmental footprint studies.

The World Print & Communication Forum (WPCF) and *PrintCity* are organising an International Environmental Conference during the 2012 drupa exhibition in Düsseldorf. The WPCF is an über-association of printing industry associations, dedicated to providing a single global exchange platform for the printing and communication industries, linking different players, suppliers and support services.

The *ISO 16759* standard for calculating the carbon footprint of print media is now in its sixth draft and getting close to being ready for the next stage in the ISO publication process. The standard provides a methodological framework for carbon footprinting processes, and is intended to unify the numerous carbon calculators on the market for print.

Japanese waterless plate firm *Toray* is to build a new printing plate factory in the Czech Republic to be operational in early 2014. Mr. Matsumoto, General Manager, Toray's Graphics Division, explained: "Europe has been given priority regarding the timetable for expanding Toray's plate production because of the growing interest in waterless printing in these markets and the need to shorten supply routes".

Toray is also introducing a new extended life waterless plate for newspaper and semi commercial printing. The MX10 waterless CTP offset printing plate promises to help boost productivity after delivering a 40% increase in press run durability during successful tests on KBA Cortina presses at key customer sites.

A new show dedicated to the sustainable side of printing is being organised. *EcoPrint Europe Live* will be held in Berlin on 26th and 27th September 2012 (**www.ecoprintshow.com**). EcoPrint's aim is to draw together a community of leaders, innovators and early adopters who see the true value of sustainable print production, moving the industry forward by enabling print service providers to improve the performance, profit and sustainable future of their businesses.

For more green news, check out The Verdigris Project:

Verdigris

http://verdigrisproject.com

The Legacy of Steve Jobs

The death of Steve Jobs was not exactly a surprise, yet it still shocked all of us deeply. This article celebrates what we believe is his greatest legacy, something wonderful that happened a long time ago and something that most people have probably forgotten about.

That something is the brief relationship between the graphic arts industry and Steve Jobs, a relationship that changed the face of prepress, publishing and ultimately printing. This article is not about the end. It's not about the end, because what Jobs gave to our industry continues to effect change around the world. The brave and crazy changes that Jobs drove in computing, music and telephony have been well documented everywhere else. This article is about what Jobs did for the publishing and printing industries, much of it through the vehicle of the Seybold Reports and conferences.

Steve Jobs' greatest strength was his faith and unwavering fanaticism, his truth to himself and his own iconoclasm. Seybold's success was the strength of its persistent voice, despite the howling gales that brought so many new realities and saw the demise of so many major industry icons, including Seybold itself. Seybold foresaw and anticipated change and its implications, striving constantly to understand digital technology's impact on graphic arts production, and what it meant for the wider publishing industry. Mainly through its journal, the Seybold Report, the organisation shared insights, ideas and awareness with readers for over 30 years. The relationship with Jobs and Apple was only one of a long series of insightful embraces, but for the printed word it was the most significant and far reaching.

Beginnings

John Seybold set up the Seybold Report to share what he was learning about emerging technologies for graphic arts production. He already had the distinction of setting up the world's first computer typesetting company in

Jobs about to take the stage at a Seybold event in 2000.

Rocappi (Research on Computer Applications in the Printing and Publishing Industries), for digitally storing, editing, manipulating, formatting and reusing text in order to produce commercial quality publications, with single keying of data. He knew that digital technology would change twentieth century print production as fundamentally as lithography had in the 19th century. The Seybold Report reflected this remarkable man's fascination with research and learning, combined with his desire to share his boundless curiosity with others.

Digital technology incontrovertibly reshaped print production and publishing processes. The Seybold Report tracked and nurtured its evolution because all forms of publishing are about change, from pharmaceuticals packaging through to newspapers. Whether it's documenting information or encouraging interaction and reaction, publishing drives progress. Improving appreciation and application of print production and publishing technologies is what the Seybold Report was all about. Jobs' vision for desktop publishing was about

the same thing, but it reached much further than the closed and confined domains of the graphic arts.

The Seybold Report was in a class of its own, not least for its vision. It carried no advertising and depended wholly on subscribers' support, covering ever-burgeoning costs with consulting and seminars. It was consulting that first brought Seybold into contact with Apple and Jobs. In the early days of the Mac and Aldus PageMaker, Seybold was involved in testing the new hardware and software. The company counted Apple Computer, Xerox, Adobe and even Microsoft as consulting clients, alongside traditional graphic arts consulting customers. Projects ranged from evaluating new typesetters, through to giving feedback on beta versions of Apple hardware and emerging software, such as PageMaker.

An oddly prophetic slide supports Jobs' presentation at a Seybold event in 2000.

This work gave the organisation a privileged and unique position, but it was the Seybold Report's editorial independence combined with passionate commitment to readers, that was key to Seybold's early success. It was a passion shared with Jobs, for whom no detail was too small, and for whom typography and page composition were fundamental tools for transparent and effective user interfaces. Seybold's appreciation of the technology and its market relevance, and its determined independence and discretion were key to the trust between Jobs and Seybold. Depth of knowledge, obsessive attention to detail, thoroughness and discretion above all, gave early Seybold writers access to the innermost workings of Apple, and of course their partners and customers.

That special access probably doesn't mean what it once did, because today the graphic arts world is a much bigger place and the Internet has commoditised information: no secret is safe anymore. But in the days when the digital map was still being drawn, discretion meant a great deal. Million dollar deals could swing or not on the strength of words printed in the Seybold Report. Computers and software were developed on the strength of Seybold opinion, as both Apple and Adobe can testify.

Desktop publishing arrived in 1984 when Paul Brainerd introduced PageMaker running on the Mac and a little two-man start-up called Adobe introduced the PostScript page description language. The combination started the steady erosion of the high walls protecting publishing and document production. Such was the power and longevity of PostScript that, 27 years on and despite the monster child that is PDF, it still drives professional production devices, from proofers and platesetters to presses. Jobs' unstinting commitment to PostScript, graphical user interfaces and professional typography reverberates still and has reformed the graphic arts, making it accessible to the mass market. He helped to create a new world of communications, one that has steadily expanded to include ever larger cohorts of creativity.

The Power of the Press

The addition of the LaserWriter with Linotype fonts, to the Postscript/Mac/PageMaker triumvirate turned a cute idea into something inordinately more powerful. That Linotype could also image these cute pages on a high-resolution imagesetter, turned desktop publishing from an interesting technology into one with both mass and professional appeal.

This incredibly compelling system allowed anyone to produce and print professional looking published pages. Despite some horrendous examples, desktop publishing mobilised an entire industry as no other technology had previously done. It helped redefine device interfaces and laid the graphical foundation for everything we now expect in a computer. From browser interfaces to spreadsheets and databases, we assume a graphical user interface and colours that mimic the printed page.

The Macintosh was for a short while Job's nemesis, but by the year following its introduction the graphic arts industry was already undergoing a profound and extensive reinvention. People didn't necessarily recognise or accept it but by the time Jobs made his appearance at the first Seybold event dedicated to desktop publishing, his technology was already shaping the industry as we know it today. This event was Job's first public appearance since his sacking from Apple, itself due in no small part to his obsession with the Mac.

The NeXT operating system that he presented at the Seybold Desktop Publishing event in 1986 still underlies the Mac OS and its derivatives are used throughout publishing, printing, music, telephony and in the cloud. Seybold meanwhile continued to push system developers towards raster image processing, colour output accuracy, the integration of text and graphics on a single device independent page, the use of low cost standard platforms and operating systems, standard font formats, predictable proofing output via the Internet, and so much more.

Seybold's fortunes, along with its intimacy with Jobs, rose throughout the eighties and into the nineties. There are many firsts to which Seybold editors can proudly lay claim, most of which the industry now takes for granted. As far back as 1986 Seybold editors were taking a systems view of the publishing process, encouraging publishers and printers that data management was key to integration and that multivendor cooperation was the only way forward. In addition to Jobs' ideas, new technologies that he had ultimately influenced often got their first airing at Seybold events including standardised colour management, CCD-based colour scanners, integrated text and graphics production systems, and digital presses. The list goes on and on. For Jobs, Seybold was the first choice for consulting and for product introductions. His famous phrase "and one more thing", preceded many a new introduction in the late twentieth century, most of them at Seybold events.

Where Are They Now?

The tale of what happened to Seybold is another story for another time. What matters here is what Jobs, together with Seybold, did for our industry, because like it says at the top of this article, this is about celebration. Every time you pick up a book, newspaper, brochure or package, you benefit from the work of Jobs and his amazing and eccentric team. Together with Seybold, his competitors and market acceptance of graphic technologies, Steve Jobs has shaped what is surely the publishing industry's greatest asset: content production, when, where and how you want it, on demand and drop dead gorgeous. His legacy is the emergence of on-demand content delivered to the desktop.

Dear Steve, Seybolders everywhere wherever you are, all of you, thank you for what you gave. Readers, both ancient and fresh, we thank you for your trust, your loyalty and your legacy. We're proud to have been part of something truly marvellous.

– Laurel Brunner

Hands-on Colour Management

We at Digital Dots have promoted ISO-based print production for a long time, while also endeavouring to explain how modern colour management methods can be implemented. But now and then we get the feeling that those methods are not generally understood or used in everyday production. And then there are those times when we attend press conferences and the vendor of, let's say a new digital press, shows prints where their own logo is reproduced with a high degree of colour variation, even sometimes when produced on the same machine but on different substrates.

So, it still seems to be a big challenge to achieve consistent and high print quality. To test this we asked a number of printers, who we know can print according to ISO standards, what their perception of market awareness is of modern colour management. We were especially interested in how colour accuracy was expressed and communicated between print buyer (or designer) and the printer. We started off with the following general questions:

Q1. Using hybrid workflows, meaning litho and digital, how common is it that a customer wants, for example, a logo colour to be printed as "close as possible", on different papers, regardless of printing method?

Q2. If this is quite common, how does the customer/print buyer communicate the quality expectation for such a logo or spot colour?

Q3. If you use the colour difference formula for Delta E (of 1976), what would you say is a "close enough" colour match for a spot colour, when reproduced?

Q4. Is the term ΔE used and understood by your experienced customers? If not, how do you (and do you) try and educate the customers on colour management terminology?

Here are the answers from a selection of printers asked.

Aaron Archer, Technical Director, Pureprint Group Ltd, UK:

A1. Quite frequently a customer will request that their brand colours match regardless of which one of the different output technologies that is used at Pureprint. Our PDF-based workflow ensures that the centralised job data is processed through the required colour space,

Aaron Archer: "We advise that a strong solid dark spot colour should be within ΔE 2-2.5, and a light pastel colours should be matched within 1.5 ΔE."

typically ISO 12647-2 paper type 1 (coated paper) for CMYK, then the data is routed to the output – a printing plate for litho or DFE (Digital Front Engine, the RIP controlling the digital press) for digital.

A2. Sometimes a brand guidelines book is produced with spot and CMYK data communicated. Then brand colour sheets are produced to assist further – printed on both litho and digital devices.

We are fortunate enough to have HP Indigo presses that are capable of using spot inks if needed, so in some instances we mix the Indigo ElectroInks as well as spot litho inks, then use colour management to verify the accuracy of both outputs to a captured reference target.

A3. If we are consulted on what delta E should be used, we typically advise that on a strong solid dark colour we would recommend using ΔE 2-2.5 and on light pastel colours 1.5 ΔE.

A4. Quite a few customers have knowledge of ΔE and the use of spectrophotometry in the control of their brand colours. We are also fortunate to have our own colour manager, the dedicated person who is always on hand to advise them on the most appropriate and sustainable methods for their particular scenario.

Sven Börjesson, Production Manager, Edita-Boberg, Sweden:

A1. This is where there are many ways to go wrong, since you mix different printing methods, as well as mix using spot colours and CMYK. What this means in regard to colour accuracy is not always fully understood by the ad agency, designer or print buyer. We try and help as much as we can, in order to achieve a good match, since this type of request is very common.

A2. Very few customers specify their expectations clearly. Best case we get a colour sample of a kind. The general rule is that the print should match the proofs, but at what tolerance is rarely specified. My guess is that this is probably because it's an unknown factor to most designers and print buyers.

A3. We are certified according to ISO 12647-2, so we follow the guidelines for spot colours there. The ISO standard recommends being within a tolerance of 2.5 ΔE, but this is just an informative recommendation, not normative.

A4. Unfortunately I think the term ΔE is fairly unknown to many designers and print buyers. Why this is, probably comes back to the historical development of the graphic arts industry. For a very long time we have seen ourselves

Sven Borgesson: "There is no ISO standard for spot colours, but in the ISO 12647-2 a tolerance of 2.5 ΔE is recommended. This is what we try and achieve."

as craftsmen, and done our utmost on behalf of the customer to try and achieve high quality print, and good colour matching. It is only of late that we have accepted the role of an industrial process, and adopted industrial methods and approaches. We, the graphic arts industry as a whole, probably haven't communicated this shift of paradigm to our customers as clearly as we should have done.

Fredrik Järkemyr, Project Manager, Danagård Litho, Sweden:

A1. This is a quite common case for us. Normally this is taken care of in our ISO-based workflow, since we are certified according to ISO 12647-2.

A2. The most common case is that we are given a previously printed sample. When analysing this we might find that it wasn't printed according to ISO. We then explain that we can either modify the originals in order to make the prints appear similar to the sample, or print

Fredrik Jarkemyr: "There are recommendations in the ISO standard for spot colours, and when using six colours in our HP Indigo we can match around 1,100 Pantone spot colours with good accuracy."

according to standard. So far the customers have chosen to let us print according to the standard.

A3. There are recommendations on spot colours in the ISO 12647-2 standard, but those are only informative, not normative. With our HP Indigo digital press we can print with six colours, so when needed we can match up to 1,100 of the Pantone spot colours with good accuracy.

A4. Not always. We stick a label with measurements and tolerances stated on our certified proofs. We also add some additional info on this label, which should help explain how to interpret this.

So, there we have the experience from some printers. There is an interesting common theme here – often the printing conditions of ISO 12647-2 (offset) on coated paper is the reference, for both litho and digital. And in practical colour management it seems as if the tolerances mentioned in this standard are possible to reach and maintain. A tolerance of 2.5 ΔE is recommended, both for the primary colours CMYK, and for spot colours, but ΔE 5 is what is stated as the normative rule in 12647-2, and then only for CMYK.

There is a clear trend in Hybrid Print to use the ISO 12647-2 standard as a reference. With good colour management it's then fully possible to achieve a good match, within tolerances, using many printing methods and paper types. As is demonstrated in this image. Photo courtesy of Per Marklund.

Of course, a designer needs a spectrophotometer in order to measure and check this, but is also given a hint in Adobe's Creative Suite if a spot colour might be out of gamut when reproduced in CMYK only. This is done by choosing the wanted spot colour in the colour library, and activating the appropriate ICC profile for the printing conditions. If a little triangle shows up next to the colour information, it means that the colour difference will be larger than ΔE 2 in print (when using CMYK only).

But it's clear that hands-on colour management still needs to be thought about and preached (and applied) on a larger scale before we can expect a better colour matching in more production. The technology is there, but not always the knowledge to go with it.

– Paul Lindström

Written on the label

The Label Expo show comes to Europe once every two years, giving us a useful snapshot of this interesting industry niche.

The labels and packaging world covers quite a few disciplines but what has most interested us over the last couple of years has been the growth of digital technology in this sector. For some time now the main players have been HP Indigo and Xeikon but two years ago we saw a number of other vendors enter this space, and that trend has continued at this year's show.

One of the main themes was the integration of converting lines with the digital printing. EFI, for example, used the show to launch its new Jetrion 4900, which includes die cutting as well as printing. Essentially it uses the same print engine as the existing Jetrion 4830, with the same CMYK plus white ink, powered by Xaar 1001 heads,

EFI has added inline laser die cutting to its Jetrion inkjet press with the launch of this 4900 model

printing in a single pass. It has a wider web width but the same print width of 210mm. Jason Oliver, senior director for EFI Jetrion's worldwide sales, says that this gives more flexibility in the future, adding: "Customers want more flexibility."

The finishing unit offers laser die cutting, using high powered dual lasers from SEI laser converting. It also includes slitting and backscoring. It works with standard flexo stocks as well as a wide range of papers, foil and film.

HP showed off two new Indigo printers. Top of the range is the WS6600, which comes with a new inline priming unit. This uses a new, custom-developed water-based primer from Michelman, and will allow customers to use the same substrates on their analogue and Indigo presses with no need for further substrate preparation thus addressing one of the major weaknesses in the Indigo platform. It can run at 40mpm. HP has since unveiled St-Luc Labels&Packaging, of Nazareth, Belgium, as the first customer for the WS6600

There's also a new entry-level model, the WS4600 that can run full colour jobs at 21mpm. There's also a new UV-light reactive invisible ink for this press, designed to satisfy security printing needs mainly for the pharmaceutical market.

In addition, HP has a new common digital front-end from EskoArtwork, which HP says will give 20 percent faster performance over its previous front end. It's obvious from talking to end users that integration with EskoArtwork workflows, including the new Automation Engine, is a useful selling point. It should be noted that the Labels and Packaging Print Server also integrates with Heidelberg CERM and Tailored Solutions LabelTraxx management information systems.

HP has also improved the white ink option so that it's now possible to lay down an opaque white with a single impression.

Chris Morgan, senior vice president of HP's graphics solutions division claimed that labels and packaging was Indigo's biggest growth area. AB Graphics demonstrated its Digicon Series 2 inline with a WS6000 press and with a new dual-finishing option so that customers can easily switch between different types of finishing on very short run jobs. HP has also said that its Indigo label presses can work with a new off-line system from Gallus.

Spartanics had a very interesting new printer on its stand, the result of a partnership with ink specialist INX International. The NW140 UV Digital Narrow Web Press

uses Xaar 1001 heads arranged in seven print units, with the first being a pre-coat unit so that customers can use more or less any substrate they want. This is then followed by white, cyan, magenta, yellow, black, and finally a varnish coat. There are small pinning lamps after both the

Spartanics demonstrated this digital label printer, based around Xaar 1001 heads and which incorporates laser die cutting.

coating and white stations, for partial curing before laying down the process colours, and also before the varnishing, with full LED curing following the printing stations.

It also features a fully integrated Spartanics X140 laser cutting unit. Thomas O'Hara, president of Spartanics explains: "We have integrated all the systems so that if you have an Illustrator file you just download it and it creates the die line along with the RIP file for the printing."

He adds: "We developed our own software for the printing and cutting. This determines how the laser works in terms of laser power and speed to stop it from burning the edges and to give a very fine cut." Spartanics already has a proven reputation for high powered laser cutting systems in this market.

It has a web width of 160mm, with a print width of 140mm but O'Hara says that they are working with Xaar to increase the width for a possible future version. Aside from the printheads and the LEDs, Spartanics has made all the components of the press itself which has helped to keep the cost down to around €280,000, a strategy which has obviously impressed customers since, despite Label Expo being the first outing for this machine they had already sold four of them by the third day.

A number of companies showed off Memjet solutions. We believe that Memjet has the capacity to really shake up the printing industry because it promises good print quality, with exceptionally high speeds at fairly low costs. Essentially, Memjet has developed a very fast single pass printhead with a print width of 220mm. It has a limited lifespan but is cheap enough to be sold as a consumable item. It's a five colour head, with Memjet providing a CMYKK set of water-based inks. Resolution is 1600 x 1600 dpi at 9mpm, or 1600 x 800 dpi at 18mpm.

It already features in several desktop label printers, including the Rapid X1 and X2 sold by Impression technology Europe and the Speedstar 3000 from Hungarian company Own-X.

Memjet's wide format division has also developed a print module, using five of these printheads stitched together, combined with ink channels and a control system. We saw this in practice last month when Xanté launched a wide format printer, the 4200 at GraphExpo. Own-X used Label Expo to launch another wide format printer using the Memjet module, the WideStar 2000. As with other Memjet-powered devices, this has CMYKK aqueous inkset, and prints at a blistering 305mm per second.

Allen Datagraph launched a desktop finishing system, the iTech Centra HS, said to be up to four times faster than its existing Centra finisher. It uses low cost knife blades to cut out labels and can cope with any shape and size up to 356mm wide, moving direct from one design to another with no need to make dies. It runs from a vector file, such as those produced by Adobe Illustrator and uses registration marks to compensate for skew or scale problems.

Allen Datagraph also showed off an all-in-one printing and converting system called the iTech AXXIS SR Digital Label System. The company has had a bundled system for the last two years made up of separate desktop print and label finishing units. The new system combines all this into a single unit, featuring an Epson B-500DN inkjet print engine that can print rolls up to 216mm wide up to 720dpi resolution, plus the ability to laminate and digitally die-cut the labels, along with scoring the face stock to remove waste.

Xeikon had an interesting feature, called VariLane, which builds on the powerful imposition tools in its front end. Essentially this allows users to gang different jobs together across the web width, irrespective of what size those jobs are. This can potentially save a lot of wasted media. It'll be offered as a plug-in for the X800 DFE.

Xeikon has also widened the range of substrates that its 3000 series label printers will work with. At the show it demonstrated a Cast PE stock from Mactac and can also now print to a biodegradeable stock from Fasson. Xeikon has attributed this greater substrate flexibility to the QA-I toner introduced at last year's Ipex show.

Durst showed off its Tau 150, along with some very impressive sample labels. It's available in both a four and an eight colour version, and you can add extra colours

Label Expo in Europe takes place at the Brussels expo, opposite the imposing Atomium structure that has become the city's most recognisable landmark.

to the CMYK version. For example, adding orange and violet allows you to reproduce 95 percent of the Pantone colours. You can also add white plus a varnish. The print quality is outstanding, even down to four point text size and with metallic effects.

It runs at 48mpm, using the Xaar 1001 printheads. It does use LEDs to cure between the white ink and the other colours, and again before the varnish is laid down but the main curing is done by UV lamps. Rafael Carbonell, director general of Durst (Spain), explains: "We believe that the LED is not good enough for final curing. If you want to cure at 48mpm then LED is not powerful enough. You have to put so much initiators into the ink that you risk blocking the nozzles. You have to find the balance between the speed and the power of the UV."

Durst also sells a dedicated finishing unit, the Rotoworx 330, which is also available in a variation for digital varnishing which can produce variable textures from label to label.

CSAT, recently acquired by Heidelberg, showed off its iTS600 system. This uses Agfa UV inks combined with water-cooled LED curing. It has a print width of up to 420mm and will print to most common label substrates including paper, foils and plastics. Resolution is 600dpi and it runs at a speed of 48mpm. It can be used as a standalone system, connected directly to a finishing unit, but it can also be integrated inline to an existing line.

Heidelberg also demonstrated its Linoprint DriveLine B on the Gallus stand. This also uses UV ink and will work with sensitive substrates such as composites and blister pack materials. It runs at 24mpm on web widths up to 340mm.

Epson showed off its SurePress label printer, which was officially launched at last year's Ipex. This uses water-based inks and offers high print quality but being a multipass printer it doesn't have the productivity of some of the other inkjets. However, Epson has found a useful niche for it in high end short run production as well as proofing and prototyping. GM also showed off a small finishing unit on the Epson stand.

Domino showed off its N600i, which we first saw at last year's Ipex. This is still a work in progress though product manager Jon Pritchard says: "We have done a lot of work to make sure that we can hit international standards in colour." Domino has also worked to integrate the EskoArtwork workflow. Pritchard says: "We think the target is going to be the flexo replacement market. The crossover point with flexo is 80-100,000 labels. I envision that customers will have a flexo and one of these next to

it with the same EskoArtwork workflow. We are trying to make it a simple transition for customers." It should produce good quality print at 50mpm though it can run at up to 75mpm across a 333mm web.

Japanese firm Shiki showed off an interesting concept device, the PicoJet, which should be available next year. It's a four colour device with Kyocera printheads and UV

Japanese firm Shiki showed off this prototype inkjet printer which boasts an impressive 50mpm despite its relatively small size.

inks with LED curing. It runs at 50mpm across a 216mm print width with 600dpi resolution. The press itself is tiny, and though it's a standalone unit it should also be possible to develop an inline version.

Kodak also showed off its traceless technology for security applications. This was first developed by CreoScitex but Kodak has significantly enhanced the original offering. Essentially this is a very fine powder, containing tagging agents, which can be mixed with inks, or other materials, such as plastics. The result is that a code can be embedded into a label or packaging element, which can only be read back with a special reader, making it hard for counterfeiters to reproduce that code.

We've only covered the purely digital systems here which were concentrated into a single hall, but many of the conventional systems also provided for digital printing, either through inline options or through smaller converting lines designed to be used with a digital printer. So it's clear that not only are there more digital solutions around, but that the concept of digital labels is much more widely accepted than at the last Label Expo. Mainly this is because the label sector is facing the same pressure for short run fast turnaround colour labels that the rest of the print industry is having to deal with. But the difference is that many of these systems are going into manufacturers who are looking to integrate their packaging and labeling into their overall production.

- Nessan Cleary

Four Pees & Counting

We recently spent some time with Four Pees, a graphic arts supplier that has been steadily growing since its inception in 2007 despite the economic and other storms buffeting our industry. It isn't really accurate to call Four Pees a graphic arts supplier or distributor, because Four Pees is doing something more. The company provides the digital glue to help reseller customers and end users automate and optimise production workflows.

Essentially a distributor for graphic arts products, in its early days Four Pees was more a provider of marketing services for resellers serving printers, prepress companies and related service providers. Over the last couple of years

Tom Peire, CEO of Four Pees

Four Pees has seen its business move away from marketing services towards increased product sales and services. Four Pees customers are resellers who blend technologies from Axaio, Callas, Elpical, GMG, ICS Remote Director, and Twixl Media serving a range of customers across sectors and relying on Four Pees for support.

The company's shift in emphasis towards product sales and services is of course in response to changing market and customer needs. Four Pees services fit in the gap between the Do-It-Yourself operators moving from a design orientation towards more robust production. End customers of the Four Pees offerings are small to medium sized businesses that understand the need to improve processes for greater efficiency and reduced costs.

Four Pees works closely with resellers to ensure that these customers' workflows actually do work productively. At the other end of the scale are those companies who buy high-end production support services for multiple output streams, with large volume production. Here too Four Pees has a role, working with companies such as Gardners in the UK for instance to ensure smooth output paths to the company's digital engines.

What is this Creature?

We aren't sure whether Four Pees is a turbocharged distributor or something more, because it provides services to support end users on behalf of 150 resellers in 35 countries and does its own software development. This work is under the highly capable direction of David van Driessche, formerly of Enfocus and Gradual Software. Around 75% of Four Pees customers are European, but the company has recently invested in two French system integrators and distributors, Ad Hoc Graphics and RBI Media. These companies specialise in content and editorial systems integration and will work with Four Pees to develop markets in southern Europe.

As part of its mission to improve product accessibility, Four Pees has introduced a new renting model as well as software trial periods. The idea is to improve the convenience for resellers, but also help with revenue stream stability, both for Four Pees and for its reseller customers, all of whom may be struggling to get financing and manage their cash flows.

The Product Range

So far Four Pees has focused exclusively on software, but we expect that to change in the next few months, particularly because of van Driessche's involvement and as the company is moving further into wide format

printing. Four Pees sells ICS Remote Director for proofing, the GMG range for colour management, including the PrintFactory series and ProofMaster (developed by Aurelon, which GMG recently acquired), Callas for PDF quality control, Elpical automated image analysis and enhancement, Axaio with its Made For series of Indesign and XPress utilities, and more recently Twixl Media which has developed an Indesign plug-in for interactive digital media production. Following its acquisition by GMG, Aurelon is now positioned as an OEM provider.

From DFlux to Atomyx

Four Pees is also working on its own automation tool, to replace Dflux which it had developed using an Enfocus Switch and Callas Toolbox foundation. It sounds like a laxative, but DFlux was in fact an engine for balancing file processing across multiple computers. Configurable from anywhere on a network, including the Internet, it included tight interfaces to a range of PDF creation and manipulation tools, plus image processing and proofing tools. It other words it provides a backbone supporting the software tools Four Pees distributes on behalf of its vendor customers, with Four Pees providing added glue as needed.

Following an apparent disagreement with Enfocus, Four Pees has developed an alternative to Dflux since it can no longer use the Enfocus technology base. The new workflow series is called Atomyx and starts with Atomyx Automation and Atomyx Portal, both of which will, with luck, be available by the end of the year. They are software successors to DFlux, but built on Callas Toolbox and Aurelon technologies. They perform the same sort of function as DFlux, but with added scaleability. Atomyx also manages job delivery for web to print workflows, including preflight checking, using Drupal open source content management software.

Keep Smiling

Drupal was chosen because of its suitability as an open source web development resource. It is proven in the marketplace and there is a massive development base for Drupal applications and troubleshooting. The two Atomyx versions differ in that Atomyx Automation is a complete workflow management system whereas Atomyx Portal simply allows file uploads into an Atomyx Automation environment. It does not do database or MIS integration or handle the specifics of workflow, and is purely focused on PDF-file delivery. Atomyx Portal functionality is included as part of Atomyx Automation. Atomyx's raison d'etre is its scope, ease of use and suitability for chaotic markets such as wide format, where the integrated workflow story has yet to be told.

Atomyx Automation uses GMG's automation engine so it has full support for all PrintFactory components and all devices that technology supports. Atomyx Automation's most interesting feature is its support for remote interaction and monitoring and ease of use.

Going with the Flow

Both iterations share a common workflow controller, which manages tools such as image processing, across a network using a single controller, which could be co-located or remote, accessing the tools it needs via the Internet. Those tools include such things as job routing, uploading, compression and so on. Atomyx Automation costs €8,000 or €400 per month on a rental basis. Maintenance is required and costs an additional 20% to cover engine and licenses for included tools (Callas pdfToolbox and Elpical Claro engine) and portal functionality. It's possible to have an additional regular pdfToolbox desktop utility for €499. And additional processing engines can be purchased: A PDF processing license is €3,499 and image processing €2,999.

Four Pees has grown revenues and its scope of activities despite the very testing times our industry has faced over recent years. The company wants to make complex technologies accessible to general markets. This will help drive content and print applications in all sectors including commercial and wide format print, and even in new sectors yet to be invented.

– Laurel Brunner

Message to Meg

When HP announced a third CEO in under fourteen months, the company's Imaging & Printing division had already planned its recent Dublin event. Designed for distributors and analysts, the meeting was intended as a sort of ten-year mission statement for Vyomesh Joshi, executive vice president of the Imaging and Printing Group, better known as VJ. The timing turned out to be fortuitous, giving VJ and his team an ideal platform from which to pitch their achievements and vision for the future.

In some ways their statement of purpose and commitment to strategy confirms some of the major shifts in our industry since 2001; that HP's IPG had a vision for where the industry was going and took the risk to pursue it, is to HP IPG's considerable credit. Despite the turmoil and change of the last few years, the division continues to deliver growth: IPG revenues have grown from $19 billion in 2001 to $26 billion for this fiscal year.

Momentum has been strongest in emerging markets in Europe and the Middle East. The division's plans for the next ten years are equally ambitious and we believe offer a coherent view of a future for print. How the market will embrace the concept of desktop printing, will determine HP IPG's success.

The purpose of HP's Dublin meeting was obviously to tell distributors and analysts (and Meg Whitman, HP's latest CEO) how well IPG is doing, and to indicate what the next few years will bring. According to VJ: "We are not only in the printing business … what we are here to do is to help people make an impact in interesting ways." HP IPG technology enables people to move from physical to digital, from atoms to bits. VJ says: "Value creation is moving from the real world to digital and back again" and that digital devices are the "on ramp" to the cloud and printers are the "off ramps".

Under VJ's guidance HP IPG is building the infrastructure and hardware platforms to support Software as a Service. Within this environment HP IPG provides the resources for developers to build applications that run within the HP IPG cloud. This cloud has open APIs so it connects to any other cloud, a hybrid solution, an open cloud that looks a lot like the Apple model, only specifically tailored for business. As VJ confirmed: "We're giving a proof point to Hewlett-Packard company".

The concept is about turning unstructured content into useful information. HP IPG is working with various customers to do this, such as Simon Greenish, CEO of

Vyomesh Joshi, executive vice president of the Imaging and Printing Group, better known as VJ.

the Bletchley Park Trust, digitising the entire Bletchley Park archive so that it can be put online for everyone to use. Bletchley Park was the heart of the British wartime message decoding effort, so this material will be fascinating for consumers and historians alike. But what on earth does this all mean in Normal-Speak?

The Normal-Speak Version

It means that cloud computing is the creative and production environment for print media. It means that just as the internet is our universal data network,

the cloud is our universal factory. The graphic arts will move away from desktop computing to a mobile model, using the cloud to perform all aspects of creative work, production and content delivery. That delivery will be to output devices at the desktop, and higher up the print productivity scale. This is why for the last few years, all HP devices costing over €79 have web connectivity built in. HP now has an installed base of around ten million of these connected devices, five million of them in Europe. The number is expected to reach 50 million by the end of 2012. That's an awful lot of ink!

In addition to outlining his plans to shift the IPG revenue base from hardware to consumables, VJ introduced HP's first MFP with the HP Topshot 3D scanning technology. The Laserjet Pro 200 colour MFP M275nw has built in

The Photosmart 7510, one of HP's battalion of web-connected engines.

connectivity to the web and includes multiple applications such as database management and remote printing management. The Topshot scanner takes six images of a 3D object: three at different angles with flash, and three with different exposure levels in ambient light conditions. The idea is to help people to create better looking photos for use on the web, or to use them in 3D applications such as packaging creation.

The idea of intelligent apps-driven printers is sort of a reversal of common thinking. It turns away from handheld devices loaded with apps, to face an output engine with inbuilt intelligence and connectivity that prints whatever you need, even if you aren't there to initiate the print. The device stays put, but delivers print sourced from the internet, automatically according to its configuration. It is an interesting model, moving us closer to the idea of web-managed on-demand print. As VJ says, the "explosion of digital technologies is dramatically expanding HP's opportunities". He sees this technology creating a "brave new channel for big brands and companies around the world" because these printers are all cloud aware.

They can use HP IPG's ePrint technology to initiate document production via an email to the printing device's email address. HP IPG's ePrintCenter allows the user to see their printer's status, manage print applications, settings and job history from any Web browser. It makes printing applications accessible online and from the printer, so the range of applications is enormous.

Brands can, for instance, reach direct to customers to deliver printed messages. One e-Print user is the Ronald McDonald House in Utrecht, a children's respite centre that uses e-Print so that families can send images to their children and relations. Images are automatically printed and posted on a wall at the house, creating "an e-smile community".

VJ and his team expect that developers will come up with other ideas to exploit its army of web-connected printers. He wants the cloud to connect HP IPG's 20,000 print service providers with its 20,000 business customers, and for the cloud to support a business hub accessible to any business. There are currently around 11 million HP IPG enterprise devices installed worldwide, and the company expects 14 million by 2012. The HP Open Extensibility Platform (OXP), a technology platform for developers to create tools for controlling and customising devices using standard web protocols, is expected to facilitate the development of this business hub.

Green Tinged

The green agenda did not get overlooked in Dublin. HP IPG is a staunch supporter of our Verdigris project and also is working with enterprise customers to reduce carbon footprints by 25% through workflow optimisation. One such customer is Merck, a pharmaceuticals company of 100,000 people. According to Drew Pawlack, Merck's director of global service delivery, a managed print

solution developed with HP IPG has done away with everyone having their own desktop printer. Now a single MFD printer supports 12 users. The company has also seen substantial reductions in energy usage and waste, and has saved 90% of the cost of a black and white page through this initiative. Merck is also trying to shift greater volumes of its offset work to the digital space to reduce waste, which is currently around 30% of volumes.

What Does HP IPG's Strategy Mean for Print & Publishing?

It means that for the professional end of the market HP IPG has some amazing opportunities, although it isn't clear that they recognise them yet. For instance, the company has partnerships with Deutsche Post in Germany and La Poste in France, but it is currently limited to printing stamps on direct mail and such like. A far bigger market exists to establish a network of connected digital presses that could produce material initiated at an end user's desktop and delivered with the next day's post.

Companies such as CPI could provide consumer and business driven print services for books printed on demand and delivered with the post the next day. But this one-off model is probably better suited to the army of HP Indigo PSPs who could capture all manner of time non-critical business documentation. All it takes is negotiated contracts with local postal or similar delivery services. Admittedly this is easier said than done, but we know of one Canon customer already pursuing this model. And as VJ said in Dublin, "we are leading new conversations about imaging and printing … content is no longer linear". Neither is the supply chain for print.

CPI Update

The above model is better suited to technologies designed for short run work, but still we hope that Pierre-François Catté, chairman of CPI and one of HP IPG's most important customers, is part of this conversation on behalf of his many divisions. CPI will have eight T400s by next year all of which will be upgraded to colour. CPI currently prints 700 million books annually, with average turnaround of 48 hours. Catté expects that 25-30% of CPI's printed books will be done on this technology within the next four years. They are moving towards a run length breakeven of 5,000, up from 1,000 a couple of years ago. Average runs are down from 12,000 to 7,500, which is one year's inventory, so the company is clearly moving from a print-to-stock to a print-on-demand model.

The shift to print on-demand is changing how CPI does business. According to Catté: "We are moving into that space because our market is taking us there." But the move will put the company into conflict with some of its publisher customers. The future is on-demand, even if run lengths are 5000 and up. CPI's recent Spanish acquisition provides a base from which to expand CPI's short run business.

Power But No Absolutes

HP IPG has become the most powerful force in the graphic arts. Its interests span from architectural and GIS prints at one extreme through large format graphics, commercial print, labels and packaging, publishing, and direct mail to wide format print. The IPG team is a formidable army of committed and dedicated professionals. Technology resources, partnerships, industry engagement and investment into market and partner education are bringing HP IPG considerable success. For instance, there are now 40 Inkjet Web Presses in the market worldwide and over five billion pages have been printed on them since this technology was introduced less than four years ago.

HP IPG has installed over 5,000 Indigos in 120 countries, thirteen of which have over 100 presses installed. 1,200 of these engines print labels and packaging and the balance commercial work. The company has seen a six-fold increase in the number of pages printed on Indigo presses since Q4 2010. In 2001 this number was one billion and it is expected to be 16 billion by the end of 2011. HP claims a 65% market share. It all depends how and what you measure, but either way as François Martin, director of worldwide marketing for the graphics solution business sums it up: "The success of our customers is our success".

Blindsided

We sit in the middle of the graphic arts from where HP IPG's activities seem almost overwhelming. So it's hard to know how important the division's role really is for the

François Martin, director of worldwide marketing for HP's graphics solution business.

larger HP body corporate. Innovation and investment are what business progress is all about and HP IPG has no shortage of either. As traditional printing has taken a hammering, HP has been at the vanguard of driving digital print volumes. That the cloud is taking over from the internet as a production and commercial environment is clear. HP wants to improve publishers' value chains and to enable new business models through its strategy.

This will depend on ambitious development of the ecosystem within which print media production thrives. Agencies, brand owners and print service providers need to be able to reach each other easily and to understand one another's languages. This requires liaison, education and investment. Such channels as DScoop, HP IPG's Indigo user group, which now has an EMEA iteration, will be invaluable in this context.

How well companies can exploit the shift to the cloud, alongside a consumer driven business model is unclear, but having an idea is a start. HP IPG has a clear and ambitious vision for its future, if not as the hub of the rest of HP's business then very close to it. For VJ the future looks bright: "I love this company … we are very resilient … I'm optimistic about our growth".

– Laurel Brunner

Quiz

The sense of awfulness that the passing of Steve Jobs has left cannot be overstated. We thought you might enjoy the following quiz which is all about his achievements.

1. What was the first successful Apple computer?
a) the Macintosh
b) the Apple II
c) Apple video board
d) the Lisa

2. How much memory did the first Macintosh have?
a) 128k
b) 1MB
c) 512K
d) None

3. What was the first page layout software for the Mac called?
a) StudioPage
b) PageMaker
c) Indesign
d) Quark XPress

4. How many people founded Apple Computer?
a) One
b) Four
c) Six
d) Two

5. When was the LaserWriter introduced?
a) 1983
b) 1985
c) 1984
d) 1990

6. Which company provided the original fonts for the Mac?
a) Monotype
b) Linotype
c) Compugraphic
d) Atex

7. PostScript won the page description war, but which company developed the leading competitor?
a) HP
b) Hyphen
c) Xerox
d) Global Graphics

8. How many colours were available for the first Macintosh?
a) Six
b) Three
c) Four
d) One

9. How much would you have expected to pay for a Mac and LaserWriter in 1987?
a) €2,000
b) €6,000
c) €10,000
d) €1,000

10. Which John ousted Steve Jobs from Apple in 1983?
a) Simpson
b) Smith
c) Lennon
d) Sculley

11. In August Apple briefly became the largest company in the world. Who did they overtake?
a) Microsoft
b) Exxon Mobile
c) Adobe
d) Shell Oil

12. When was the Apple Lisa introduced?
a) 1984
b) 1982
c) 1983
d) 1985

13. When was Apple Computer founded?
a) 1979
b) 1974
c) 1976
d) 1980

14. Name the Apple founder who dropped out of college and then returned to get a degree?
a) Larry Page
b) Steve Jobs
c) Marc Andreeson
d) Steve Wozniak

15. When did Apple acquire Next Computer?
a) 1995
b) 1996
c) 1994
d) 1999

16. Which of the following was not a CeO of Apple?
a) Scott McNealy
b) John Sculley
c) Michael Spindler
d) Gil Amelio

17. Which company has been Apple's most important partner?
a) Motorola
b) Adobe
c) Microsoft
d) Oracle

18. What percentage of the US PC market does Apple have?
a) Less than 5%
b) Nearly 22%
c) Almost 10%
d) About 17%

19. How many Mac users are there worldwide?
a) 100 million
b) 50 million
c) 25 million
d) 60 million

20. From where did Steve Jobs get his ideas about graphical user interfaces?
a) Adobe
b) Aldus
c) Xerox
d) HP

Here are the answers. You get four point for every correct one.

1. b
2. a
3. b
4. d
5. b
6. b
7. a
8. d
9. b
10. d
11. b
12. c
13. c
14. d
15. b
16. a
17. c
18. c
19. d
20. c

X-word Puzzle

Number 32 – Answers

A	F	P	I	P	D	S	■	R	■	D	■	B	■	U
P	■	E	■	R	■	H	■	P	O	P	■	U	■	N
P	R	O	F	I	T	A	B	I	L	I	T	Y	■	C
L	■	P	■	N	■	D	■	■	I	■	A	■	G	O
E	■	L	E	T	■	O	■	L	O	C	K	S	■	A
C	■	E	■	E	■	W	■	I	■	■	E	■	A	T
O	■	■	■	D	E	S	I	G	N	E	R	S	■	E
M	■	T	■	■	■	■	■	H	■	■	■	■	■	D
P	R	E	F	L	I	G	H	T	C	H	E	C	K	S
U	■	N	■	I	■	R	■	I	■	■	■	A	■	T
T	■	D	■	N	■	A	■	N	■	E	■	S	■	O
E	L	E	M	E	N	T	■	G	R	A	P	H	I	C
R	■	R	■	A	■	E	O	■	E	■	Y	■	O	K
■	■	■	O	R	■	■	I	■	N	■	R	■	N	S
F	O	U	N	T	S	O	L	U	T	I	O	N	■	■